



BITS Pilani

# annual report 2018



**BITS Pilani**

PILANI | GOA | HYDERABAD | DUBAI



Appendix 'V': Ref. BG Agenda Item No. 72.12  
Appendix 'I': Ref. GB Agenda Item No. 58.12

**ANNUAL REPORT**  
**2018**

**REPORT OF THE BOARD OF GOVERNORS AS TO  
THE STATE AND CONDITION OF THE INSTITUTE FOR  
THE PERIOD 1ST JANUARY 2018 TO 31ST DECEMBER 2018**



**BITS Pilani**  
Pilani | Dubai | Goa | Hyderabad

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BITS Pilani

# annual report 2018

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Part A: A quick glance

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## GOVERNANCE AND MANAGEMENT



Chancellor  
Dr. Kumar Mangalam Birla



Pro-Chancellor  
Smt. Shobhana Bhartia



Vice-Chancellor  
Prof. Souvik Bhattacharyya

## OTHER SENIOR OFFICERS OF THE INSTITUTE

### DIRECTORS

Prof. Ashoke Kumar Sarkar  
Pilani Campus

Prof. G. Raghurama  
K.K. Birla Goa Campus

Prof. G. Sundar, Hyderabad Campus & Off-Campus  
Programmes and Industry Engagement

Prof. Ranendra N. Saha  
Dubai Campus

### REGISTRAR

Ernest Samuel Ratnakumar J

### DEANS

Prof. Arya Kumar  
Alumni Relations

Prof. Ajit Pratap Singh  
Academic-undergraduate Studies

Prof. S. Gurunaryanan  
Practice School

Prof. S. Balasubramaniam,  
Work Integrated Learning Programmes

Prof. Sunil Bhand  
Sponsored Research and Consultancy

Prof. Srinivas Krishnaswamy  
Academic-Graduate Studies & Research

Prof. Souri Banerjee  
Faculty Affairs

Chief Finance Officer (On Deputation)

Mr. Arun Khetan

**“BITS PILANI DISTINGUISHED ALUMNUS AWARD” RECIPIENTS -2018****PROF. REENA (GARG) AGGARWAL**

Prof. Reena Aggarwal obtained her MMS degree from BITS Pilani in the year 1979 and subsequently did her Ph.D. from University of Maryland, USA in 1985. She is at present Vice Provost for Faculty at Georgetown University and Robert E. McDonough Professor of Finance at Georgetown's McDonough School of Business. She is also the Director of the Georgetown Center for Financial Markets and Policy, Georgetown University, Washington DC, USA.

Prof. Aggarwal has held various positions including Interim Dean and Deputy Dean of Georgetown's McDonough School of Business; Distinguished Scholar at the Reserve Bank of India's CAFRAL; Visiting Professor of Finance at MIT's Sloan School of Management; FINRA Academic Fellow and FINRA Economic Advisory Board; Academic Fellow at the U.S. Securities and Exchange Commission; Visiting Research Scholar at the IMF; Fulbright Scholar to Brazil; and the World Economic Forum's Global Agenda Council on the Future of Financing and Capital.

Prof. Aggarwal specializes in global financial markets, market regulation, securities exchanges, ETFs, IPOs, institutional investors, private equity, valuation, and corporate governance. She is a prolific scholar and has received widespread recognition for her extraordinary contributions in the field of global finance. She was honored with the Allan N. Nash Distinguished Doctoral Graduate Award by University of Maryland, and was selected as the Georgetown Wall Street Alliance honoree. Her research has been recognized for addressing global governance challenges and she received the prestigious BlackRock-National Association of Corporate Directors Award for Global Challenge for Innovation in Corporate Governance. She was honored with Most Cited Articles Award for 2005-2009 by Elsevier's Economics and Finance Journals; Best Paper Award, China International Conference in Finance; and was conferred with Research Award by Institute of Quantitative Research in Finance (Q-Group).

Her research contributions are highly relevant in the area of global financial markets. She has published more than 50 research papers in leading journals such as – *Journal of Finance*, *Journal of Financial Economics*, *Review of Financial Studies*, *Journal of Financial and Quantitative Analysis*, *Journal of Banking and Finance*, *Financial Management*, *Journal of Applied Corporate Finance* and *Journal of Portfolio Management*. Her scholarly work is impactful with a large number of citations.

She has been named among "Outstanding Faculty" in the Business Week Guide to the Best Business Schools, and has been voted an outstanding professor by Executive MBAs.

Prof. Aggarwal serves on the Board of Directors of Cohen and Steers, New York Life Investment Management IndexIQ, Brightwood Capital, and REAN Cloud. She is a member of FTSE Russell Academic Advisory Board. She has consulted for governments, law firms, companies, stock exchanges, and for organizations including IMF, World Bank, UN, IFC, OPIC, IADB, and OECD. Her research and analysis is regularly cited in *Financial Times*, *Wall Street Journal*, *New York Times*, *Washington Post*, *Forbes*, and CNBC.

The Distinguished Alumnus Award in the category of Academia and Research is awarded to Prof. Reena Aggarwal, in recognition of her outstanding contributions to the society. Through her achievements, Prof. Reena Aggarwal has brought glory and laurels to her Alma Mater – BITS Pilani.



## PROF. PRABHU L PINGALI



Prof. Prabhu. L. Pingali obtained his M.A. (Hons) in Economics from BITS Pilani in the year 1977. He subsequently received a Ph.D in Economics from North Carolina State University in 1982. He is the Founding Director of the Tata-Cornell Institute and a Professor in the Charles H. Dyson School of Applied Economics and Management, with a joint appointment in the Division of Nutritional Sciences, in the College of Agriculture and Life Sciences, Cornell University. Prior to moving to Ithaca, New York, in June 2013, he was the Deputy Director, Agriculture Development Division of the Bill & Melinda Gates Foundation in Seattle, Washington from 2008 to 2013.

Dr. Pingali was the President of the International Association of Agricultural Economists (IAAE) from 2003-2006. He was Director of the Economics Program at CIMMYT, Mexico from 1996-2002 and an Agricultural Economist at the International Rice Research Institute (IRRI) at Los Baños, Philippines from 1987-1996, and prior to that at the World Bank's Agriculture and Rural Development Department from 1982-1987.

Dr. Pingali is an internationally recognized expert in agricultural development and food security. He has written ten books and over 100 refereed journal articles and book chapters on food and nutrition policy.

He is the recipient of prominent International Honors/Awards for his distinct contributions to Agricultural Economics and Development, such as: Outstanding Alumnus (2010), North Carolina State University; Honorary Life Member, International Association of Agricultural Economists (2009); Elected Member, (Foreign Fellow) U.S. National Academy of Sciences (2007); Distinguished Fellow of American Agricultural Economics Association (2006); Outstanding Publication Award shared with A.C. Rola for "Pesticides, Rice Productivity, and Farmers' Health: An Economic Assessment" (1997) Philippine National Academy of Sciences and Technology; M.S. Swaminathan Award for Social Science Research and Development for the book "Pesticides, Rice Productivity and Farmers' Health: An Economic Assessment" (1993) and Quality of Research Discovery Award for the book entitled "Agricultural Mechanization and the Evolution of Farming Systems in Sub-Saharan Africa., American Agricultural Economics Association (1988).

The Distinguished Alumnus Award in the category of Academia and Research is awarded to Prof. Prabhu. L. Pingali, in recognition of his outstanding contributions to society. Through his achievements, Prof. Prabhu L Pingali has brought glory and laurels to his Alma Mater – BITS Pilani.

PROF. ARUN K SOMANI



Prof. Arun K Somani holds a Bachelor's degree in Electronics Engineering from BITS Pilani in 1973. He subsequently did his M.Tech. in Computer Engineering, from IIT Delhi in 1979, and M.S. and Ph.D. in Electrical Engineering from McGill University, Montreal, Canada in 1983 and 1985, respectively. He is currently Anson Martin Distinguished Professor of Electrical & Computer Engineering, Associate Dean for Research, College of Engineering & Philip and Virginia Sproul Professor, Iowa State University, USA. He has made pioneering contributions through his research in the areas of System-Level Diagnosis, Fault Tolerant Computer System, Reliability Analysis Tools and Techniques, Managing Soft Faults in Computer Systems, VLSI Systems, Proteus

Multi-Computer System, GPS-Denied Navigation and Augmentation, Image-Based Navigation, Architectures, Algorithms, Fault, and Attack Management in WDM networks, etc.

His research contributions have great recognition amongst researchers as evident from having a citation indices of ~9,000, H-index of 49 and i10 index of 168. He has mentored more than 40 Ph.D. students, 85 master's students and has more than 350 publications. He has co-authored ~20 books and book chapters and holds 11 patents.

He has developed, designed and implemented Proteus multi-computer system – a fully reconfigurable high performance computer system – for computer vision applications using mathematical morphology for Coastal Navy. His research outcomes, architectures, algorithms, and tools and methods developed for analysis and education have been and are actively being utilized by leading companies such as Boeing, Singapore Defense, Honeywell, GE Locomotive division, Lucent, Rockwell Collins, Lockheed Martin, and several universities.

He has received widespread recognition for his extraordinary contributions in the field of teaching and research. He is the recipient of prominent Honors/Awards for his research and leadership/service roles including Distinguished Professor, 2007; Department Leadership, 2008; Mervin S. Coover Distinguished Service Award, 2010; first Recipient of Philip and Virginia Sproul Professorship, 2014-2019; and first Recipient of Jerry R. Junkins Chair Professorship, 2002-2014; all at Iowa State; Awarded Eminent Engineer of Tau Beta Pi Engineering Honors Society; Elected Fellow of IEEE for “contributions to theory and applications of computer networks,” 1999; Distinguished Engineer of ACM, 2006; Elected Fellow of AAAS for “distinguished contributions to the theory and practice of dependable computing and networking systems, including design, development, implementation, and building experimentation platforms,” 2012.

The Distinguished Alumnus Award in the category of Academia and Research is awarded to Prof. Arun.K.Somani, in recognition of his outstanding contributions to the society. Through his achievements, Prof. Arun.K. Somani has brought glory and laurels to his Alma Mater – BITS Pilani.

MR. AJOYENDRA MUKHERJEE



Mr. Ajoyendra Mukherjee completed his B.E. in Electrical & Electronics Engineering from BITS Pilani in 1980. He joined Tata Consultancy Services, a leading global IT services, consulting and business solutions organization, immediately after his graduation from BITS and has gone to become the Executive Vice President & *Global* Head of Human Resources. He also heads the India and Middle East & Africa (MEA) markets for TCS.

During his 38 year career in TCS, Ajoy has worked in diverse roles and a variety of technical platforms and has led the delivery of a number of challenging programs for TCS customers world-wide. He has played a key role in several landmark projects in Banking & Financial Services, Utilities, Manufacturing and Government. Ajoy has played a key role in scaling up TCS to over 394,000 professionals and ensuring that the global human resources function is continuously responding to the challenges and opportunities of a dynamic industry. Under his able guidance at an overall level, the focus on training resulted in over 247,000 employees getting trained on digital technologies, and 208,000 employees trained on agile methodologies.

Under Ajoy's leadership, TCS has received innumerable HR accolades and awards. Some of the awards include - Recognized as a Top Employer globally for the third consecutive year by the Top Employer Institute; Named among the Top job creators in the US IT Services Sector by the Cambridge Group; Recognized as one of the Achievers 50 Most Engaged Workplaces™ in North America, for the fifth consecutive year; Won two awards in the Forbes 2017 Global 2000 list, as one of the Top Regarded Companies and as one of the World's Best Employers; Won a Gold Stevie® and two Silver Stevies® for Achievement in Employee Engagement in the Americas, and Achievement in Recruitment and Employer of the Year at the Stevie® Awards for Great Employers (SAGE).

Ajoy also heads the TCS CSR function, and is on the Board of TCS Foundation. Under his leadership TCS earned a place in the Global Dow Jones Sustainability Index (DJSI) for the fifth consecutive year, and in FTSE4 Good's Emerging Index. He has also been a key member of the corporate leadership team driving change and efficiency of TCS internal delivery processes. He is on the board of AP Online, a joint venture between TCS and Government of Andhra Pradesh. He is also a director in WEBEL board, a Government of West Bengal enterprise responsible for the development of Electronics & IT Industry in West Bengal. He is a member of IEEE and CSI (Computer Society of India).

He has been regularly featured and interviewed in leading Business media including the print and TV channels for his strategic contributions in the area of Human Resources and company's growth and strategy.

The Distinguished Alumnus Award in the category of Corporate Leadership is awarded to Mr. Ajoyendra Mukherjee, in recognition of his outstanding contributions to the society, as a Corporate Leader. Through his achievements, Mr. Mukherjee has brought glory and laurels to his Alma Mater - BITS Pilani.

MS. PRASANNA GOPALAKRISHNAN



Ms. Prasanna Gopalakrishnan did her M.Sc. (Tech) Instrumentation from BITS Pilani in the year 1991 and subsequently did MBA – Finance and International Management from D’Amore – McKim School of Business at Northeastern University, Boston, USA in 2012. She is currently the Chief Information Officer, Consumer and Small Business Operations at Bank of America, Charlotte, NC.

Prior to this, Ms. Gopalakrishnan served as the Executive Vice President, Chief Digital and Information Officer at Boston Private, Boston, MA. She is a Fintech executive who has been leading the financial services industry for 20+ years. She specializes in Digital transformation efforts centered on Client experience and works closely with her Business Leaders to drive growth and new business model centric strategy through Digital Transformation. She served as the Chief Information Officer of Campus Services at Harvard University, where she led an IT organization supporting a portfolio of 12 business units within a diversified set of industry segments of Harvard Campus Services. She had also served in various key roles at Fidelity Investments, Thomson Reuters and State Street Bank.

Ms. Gopalakrishnan is passionate about developing women in technology and serves in various platforms and capacities to support developing women in leadership. She is passionate about developing youth and motivating them to reach their highest potential. She also advises tech start-up CEOs in Silicon Valley and other locations, on business models, platform & product development. She has also served as an advisory board member in several technology start-ups in USA and UK.

She has received widespread recognition for her extraordinary contributions in the field of technology. Diversity MBA Magazine recognized her as one of the “Top 100 Under 50 Executive Leaders in 2015 and Constellation research recognized her as the one of top 150 – Business Transformation Leader (BT-150) among global leaders leading transformation efforts within their organization in 2017.

The Distinguished Alumnus Award in the category of Corporate Leadership is awarded to Ms. Prasanna Gopalakrishnan, in recognition of her outstanding contributions to the society, as a Corporate Leader. Through her achievements, Ms. Prasanna Gopalakrishnan has brought glory and laurels to her Alma Mater – BITS, Pilani.

DR. ANAND S RAO



Dr. Anand S Rao did his M.Sc. (Tech) – Computer Science from BITS Pilani in the year 1984. He subsequently did his Ph.D. in the area of Artificial Intelligence from University of Sydney in 1988 and thereafter graduated with Distinction in MBA in Finance & Technology from Melbourne Business School, Australia in 1997. He is currently Global Artificial Intelligence and Innovation Lead (Data & Analytics) & Partner, PricewaterhouseCoopers (PwC), USA.

He has worked extensively on business, technology, and analytics issues across a wide range of industry sectors including Financial Services, Healthcare, Telecommunications, Aerospace & Defense, across US, Europe, Asia and Australia. His work has included behavioral economics, simulation modeling, global growth strategies, marketing, sales, and distribution strategies, online, mobile, social media strategies, customer experience, multi-channel integration, risk management and compliance, large scale program mobilization and management. Before his consulting careers, Anand was the Chief Research Scientist at the Australian Artificial Intelligence Institute, a boutique research and software house. He brings a unique combination of business domain experience, statistical and computational analytics expertise to generate unique insights into the theory and practice of ‘data science’ and artificial intelligence.

Dr. Anand has also co-edited four books on Intelligent Agents and has published over fifty papers in Computer Science and Artificial Intelligence in major journals, conferences, and workshops. He is a frequent speaker at technology and business forums on analytics, Artificial Intelligence, behavioral economics, and innovation. He has served on the Organizing and Program Committees of International Journals, Conferences, and Workshops. He has also served as a non-executive board member in for-profit and not-for-profit institutions.

He has received widespread recognition for his extraordinary contributions in the field of consulting and research in the emerging areas with relevance to the society at large. He has received the Most Influential Paper Award for the Decade in 2007 from the Autonomous Agents & Multi-Agent Systems organization for his contribution on the Belief-Desire-Intention Architecture; MBA Award of Distinction from Melbourne Business School, 1997 and University Postgraduate Research Award (UPRA) from University of Sydney, 1985; recognized as one of Top 50 Data & Analytics professionals in USA and Canada by Corinium; one of Top 50 professionals in InsureTech; and his recent paper on “A Strategist’s Guide to Artificial Intelligence” has won the National Gold Award by ASBPE for the Best Technical article in 2017 and the FOLIO editorial award.

The Distinguished Alumnus Award in the category of Corporate Leadership is awarded to Dr. Anand S Rao, in recognition of his outstanding contributions to the society, as a Corporate Leader. Through his achievements, Dr. Anand S Rao has brought glory and laurels to his Alma Mater - BITS Pilani.

## MR. ANUPENDRA SHARMA



Mr. Anupendra Sharma did his B.E. - Instrumentation Engineering and M.Sc.-Economics from BITS Pilani in the year 1992. Thereafter, he did his MS - Accounting & Finance from Alliance Manchester Business School in 1993, ACMA - Chartered Management Accountant from The Chartered Institute of Management Accountants in 1997 and MBA from Cornell University, USA in 1998. He is currently holding the position of the Global VP of Growth & Business Development at Siemens Healthineers within Enterprise Services & Solutions. In this role, he partners with innovative companies to create new business lines for Siemens in healthcare services. For eleven years, he was Senior Investment Partner at Siemens Venture

Capital / Next47. Anupendra served on the Board of several medtech, diagnostics, healthcare services and biotechnology companies in the USA and China. Prior to SVC, Anupendra spent eight years in M&A at JPMorgan, Salomon Smith Barney and Siemens. He also worked in strategy consulting for McKinsey, and Product Development Finance for Ford, where he was a member of the core team that set-up Ford in China and India.

Anupendra is a strong believer in entrepreneurship education. He founded the Start-up Leadership Program in 2006, which has educated 3,000 entrepreneurs in 28 cities in 13 countries who have started more than 1,700 companies that have raised \$ 650 million. More than 60 start-ups have been acquired. Through this not for profit program, SLP supports education programs for 1,000 children around the world. He also co-created and teaches the Healthcare Innovation & Commercialization course at Harvard Medical School since 2009 that has educated 700 MDs, PhDs, Postdocs and faculty. This program now forms the core of the Entrepreneurship Certificate at Harvard Medical School.

Anupendra also co-founded the Center for Entrepreneurial Leadership at BITS Pilani, named one of India's top five entrepreneurship centers in India. He also co-founded the Massachusetts Life Sciences Initiative Day (MALSI Day) which is an annual gathering in Boston recognizing the commercializable research coming out of top universities, and brings together the leading researchers, entrepreneurs and venture capitalists. Anupendra serves as a mentor, reviewer or judge for several entrepreneurial organizations including National Cancer Institute, Harvard i-Lab, MIT, MassChallenge and TiE Scaleup.

He was the Co-Founder & Chairman of Mobile Medics Healthcare, named the Most Outstanding Social Venture of the Year at the Global Social Venture Competition in 2006 for tackling the last mile problem of healthcare. Mobile Medics became the foundation for Piramal Group's eSwasthya which runs in hundreds of villages.

The Distinguished Alumnus Award in the category of Entrepreneurship/Public Life/ Philanthropy is awarded to Mr. Anupendra Sharma, in recognition of his outstanding contributions to the society. Through his achievements, Mr. Anupendra Sharma has brought glory and laurels to his Alma Mater - BITS Pilani.

MR. TUSHAR JAIN



Mr. Tushar Jain did his M.Sc. – Economics and Master of Management Studies (MMS) from BITS Pilani in the year 1993. He had a missionary and entrepreneurial zeal to contribute something meaningful to society from the very beginning. He set up his own Micro-Irrigation business with indigenous technology to empower farmers globally, by conceiving irrigation components and irrigation systems at par with the best in the world.

Mr. Tushar Jain started his Micro Irrigation business in 1996 and subsequently promoted Automat Irrigation Pvt Ltd. He has been Independent Director in multiple organizations in various sectors. He was the first Indian to be certified by the Irrigation Association as a certified Landscape Irrigation Auditor. He has been instrumental in setting up 500 Demo Farms across India to disseminate water management practices and yield- increasing technologies and 100 other Demo Farms in other parts of the world, including Chile, Morocco, Egypt, Tunisia, Brazil, Argentina, Turkey, Mexico etc. His mission is to continuously innovate for the benefit and productivity of the global farming community. Today Automat makes more than 350 products – that are part of micro-irrigation systems across the world and are marketed by the biggest names in the business.

Some key current disruptive projects in progress under his leadership are - Drones for dissemination of Insecticides and Herbicides, a cellphone operated Valve for the well which operates an Irrigation System, and an extremely low cost Fertilizer Injector which can enable dosing of 2 different fertilizers at the same time.

He founded Automat Foundation Trust in 2012 that provides financial assistance for education of the girl child. The Trust also provides financial assistance to those suffering from critical or terminal illness. A Homeopathic Dispensary & Physiotherapy Centre has also been set up in his home town - Saharanpur.

His contributions have received recognition in the form of many premier Awards and Honours. He has been conferred with the 4th National Award for Technology Innovation - Ministry of Chemicals & Fertilizers in 2013-14; Entrepreneur of the Year Award- ET Now in 2013; National Award by Ministry of Micro, Small & Medium Enterprises in 2015; 7th Plasticon Award- PlastIndia Foundation in 2014-15; The Economic Times Polymers Awards- The Economic Times for Excellence in Agriculture (Fertilizer Tank) & Product Innovation in 2018 and Excellence in Agriculture (Hydrocyclone) & Product Innovation in 2017; SME of the Year - India Mart National Award for Engineering Products in 2012-13. He has been nominated by the Prime Minister, Shri Narendra Modi as one of the Champions of Change to transform India in 2017 and is a member of Core Consulting Committee of the Government of India to double farmer's income by 2022.

The Distinguished Alumnus Award in the category of Entrepreneurship/Public Life/ Philanthropy is awarded to Mr. Tushar Jain, in recognition of his outstanding contributions to the society. Through his achievements, Mr. Tushar Jain has brought glory and laurels to his Alma Mater - BITS Pilani.





## A.1 HIGHLIGHTS OF ACHIEVEMENTS DURING THE YEAR 2018

1. A total of 170166 candidates, including 45259 girls, from all over the country applied for BITSAT 2018 test. The candidates had the option of choosing their own centers, date and time for the test, which was conducted during 16<sup>th</sup> May to 27<sup>th</sup> May, 2018.
2. 13 Board toppers of Class XII of 2018 have joined three campuses of BITS Pilani this year.
3. Campus placement improved during the year. Four campuses put together, number of companies visiting our campuses for recruitment rose from 632 in 2017 to 653 in 2018.
4. Ranking of BITS PILANI by various international and national agencies in 2018.

Agency	Year	Heading	Ranking
Time Higher Education (THE)	2018	The World University Ranking	801-1000
		The World university Ranking for Subject LIFE SCIENCE	401-500
		The World University Ranking for Subjects Physical Sciences, Engineering and Computer Sciences	601-800
Quacquarelli Symonds Marketing (QS)	2018	QS World University Rankings	801-1000
		QS Asia University Ranking	180
		QS BRICS University Rankings	96
		QS India University Rankings	17
NIRF	2018	Overall	26
		University	17
		Engineering	17
		Pharmacy	5
Career 360	March 2018	Top 10 Private Colleges	4
		Ranking Multidisciplinary Private Institutions	3
India Today	June 2018	Top 10 Private Colleges	1
		Top 10 Private Engineering College	1
		Zone-Wise Top 5 Private Colleges (North)	1
Outlook	June 2018	Top 20 Private Colleges	1
		Top 10 in Placement	2
		Top 10 in Infrastructure	5
		Top 100 Engineering College	5
		Top 10 in Academic Excellence	6
		Top 10 in Selection Process	6
		Top 10 Industry Interface	6
		Top 10 Roll in Private Engineering Colleges	8
Top 10 Student / Faculty Ratio	8		
Outlook (for B-Schools)	October 2018	Top 10 Management Colleges in North Zone	8
		Top 10 Infrastructure and Facilities	7
		Top 10 Private Colleges of Management	10
		Top 100 Management Schools	19
The Week	June 2018	Top All India Private Engineering Colleges	1
		Top Private Engineering Colleges Zone-wise – North	1
The Week (for B- Schools)	October 2018	Top Private B-Schools All India	19
		Top B-Schools North Zone (including Govt. Instt)	9
		Top Private B-Schools North Zone	3

### 5. Alumni Achievements:

- Mr. Amitabh Chaudhary has been appointed as the CEO & MD of Axis bank and will take over in January, 2019.
- Rajesh Ramakrishnan has been appointed as the new Managing Director of Perfetti Van Melle India in June, 2018.

- Prof. L.K. Maheshwari Foundation Distinguished Alumnus Award was conferred on Prof Arun K. Somani, Distinguished Professor, Dept. of ECE, Iowa State University, USA.
  - Anudeep Durishetty, Hyderabad Campus topped this year's UPSC exams.
  - Bangalore-based hyperlocal delivery subscription startup DailyNinja, founded by BITS Pilani alumni, Sagar Yarnalkar and Anurag Gupta has raised \$3 million in funding led by Saama Capital in June 2018.
  - BITS Pilani alumni Nishith and Geet Garg, Bangalore-based logistics platform Locus has evolved into a B2B enterprise platform, recently raising \$4 million in a pre-Series B round.
  - Vijay Sharma and Rishabh Kaul, alumni of BITS Pilani and founders of Belong.co were awarded the Fortune 40 under 40 award for 2018.
6. BITS Pilani has been awarded the Institute of Eminence status by the Ministry of Human Resource Development, Government of India. As one of the six institutes (three publicly funded and three privately funded) in the country which have been conferred on this honor, BITS, Pilani will receive significant autonomy in operations, among other benefits, to help its position itself amongst the world's top 500 in a decade's time.

#### Pilani Campus

1. Convocation - 2018 - The Convocation Ceremony was organized on July 25, 2018 in which 1,307 students received their degrees, comprising of 1,044 First Degree, 243 Higher Degree, and 20 Ph.D. Mr. Murtaza Haidary (B.E. Hons. Chemical Engineering) received the Gold medal, Mr. Anirudh Kumar Bansal (B.E. Hons. Computer Science) received the Silver medal and Mr Siddharth K (B.E. Hons. EEE) received the Bronze medal.
2. The Peacock Restoration Team organized workshops titled "First Aid for Birds and Preparation and Installation of Bird Nest Boxes" on January 22-23, 2018.
3. International Programmes and Collaboration Division, BITS Pilani making further inroads in terms of collaborative participation in research and teaching, a Memorandum of Understanding was signed on February 23, 2018 with Trinity College Dublin, Ireland aiming to strengthen educational and research linkages, and the exchange of faculty and students with the aim of achieving state-of-the-art infrastructure facilities in various fields of engineering and science.
4. The World Book and Copyright Day on the 23<sup>rd</sup> of every April (to signify the passing of Shakespeare and Cervantes) is a celebration of authors, illustrators, books and the joys of reading.
5. The Teaching Learning Centre (TLC) at BITS Pilani organized a Two-Day National Workshop on "Improving Synergy between Teaching and Research in Indian Academia" with an aim to provide a platform where academicians can share their research-based experiences on how to synergize teaching and research and also to listen to and interact with leading experts in this area.
6. The Department of Mechanical Engineering organized a two-day workshop on "Condition Monitoring & NVH" [CMNVH 2018] during February 14-15, 2018.
7. The International Conference on Media, Culture, and Ethics was held during February 8-9, 2018. The Director of IIMC, Mr Sunit Tandon was the Chief Guest, and the founder of the Pickle Jar Platform, Ms. Vasanthi Hariprakash was the Guest of Honor. The Director, Prof Ashoke K. Sarkar, The convener Prof. Sangeeta Sharma and the Head, Department of Humanities and Social Sciences, Prof Gajendra Singh Chauhan presided over the inaugural ceremony.
8. International Conference on "Advances in Concrete, Structural, and Geotechnical engineering was organized by the Department of Civil Engineering during February 26-28, 2018. The three-day conference had 17 technical sessions with the participation of about 140 delegates in total including 25 keynote speakers. In the inaugural session, the Vice-Chancellor, Prof Souvik Bhattacharyya was the Chief Guest. The Director, Prof Ashoke K. Sarkar, Pilani campus and Prof Ravindra K. Dhir, Order of British Empire (OBE) and Honorary Professor at University of Birmingham, UK were Guests of Honor.

9. Prof. L.K. Maheshwari Distinguished Alumnus Award ceremony was held on January 31, 2018. The award was conferred on Prof Arun K. Somani, Distinguished Professor, Dept. of ECE, Iowa State University, Ames, IA, USA for his outstanding contribution in Electrical & Instrumentation Engineering. The Director, Prof Ashoke A. Kumar was the Chief Guest of the ceremony. Prof Navneet Gupta, the Secretary of LKM Foundation and the Head of EEE Department welcomed the guests and informed the audience about the activities of Prof L.K. Maheshwari Foundation Trust.
10. Rajasthan IT Day was conducted by Rajasthan Government during March 18-21, 2018 in Rajasthan University Campus, Jaipur. As a part of this series, one of the events was EduHack on March 19, 2018. This event gave a unique platform to teachers, professors, lecturers and educationists of Rajasthan state wherein they can demonstrate their path-breaking solutions to improve the education system. Dr Vishal Gupta and Dr Ashutosh Bhatia from Computer Science and Information Systems Department, Pilani Campus participated as a team and received second runner up prize.
11. BITS Pilani Alumni Association (BITSAA) gives two awards annually to any full-time faculty member with experience of at least three years of BITS Pilani campuses; Prof S Venkateswaran Award, (INR 1, 00,000) instituted by Mr Karthik Krishna (1993 Batch) in the name Prof S. Venkateswaran, former Director & Vice Chancellor of BITS Pilani to encourage and develop faculty; Prof I.J Nagrath Award, (INR 1, 00,000) in the memory of Prof I.J Nagrath, retired as the Deputy Director after serving at BITS in various roles. Prof Anil Kumar, Department of Chemistry, Pilani Campus and Prof Srinivas Krishnaswamy, Department of Chemical Engineering, KK Birla Goa Campus has been selected for Prof S Venkateswaran Faculty Excellence Award and Prof I.J Nagrath Faculty Excellence Award, respectively, for the academic year 2017-2018.
12. The 6<sup>th</sup> Indo-German workshop on Sustainable Manufacturing & Entrepreneurship was organized jointly by BITS Pilani, India and TU Braunschweig, Germany during September 17-18, 2018 at BITS Pilani, Pilani Campus. The workshop was inaugurated by the Chief Guest, Mr. Tony Henshaw, the Chief Sustainability Officer of Aditya Birla Group, the Vice-Chancellor Prof Souvik Bhattacharyya, the Deputy Leader of the Sustainable Manufacturing and Life Cycle Engineering Group at TU Braunschweig, Dr Sebastian Thiede, and the conveners of the workshop Prof Kuldeep Singh Sangwan and Prof Jyoti.
13. The Academic Counseling Cell (ACC) conducted a gala celebration on Teachers Day. The event included a string of delightful performances to mark the occasion including a group song from 'Chak de India', jointly sung by faculty and students of Humanities and Social Sciences. The occasion was the first of its kind in the academic year to bring students and faculty together on the same platform outside the classroom. The Vice-Chancellor Prof Souvik Bhattacharyya also attended the event and shared his thoughts.
14. JCI sponsored Smart Building Lab was inaugurated at BITS Pilani, Pilani Campus on Wednesday, October 24, 2018. A MoU in this regard was signed between the Vice Chancellor, BITS Pilani and the Director of Johnson Controls, India. The lab has the entire range of intelligent building management controls systems, double deck mix-air Air Handling Unit (prototype) & Direct Expansion (DX) Cooling Unit of Chilled Water Systems. The lab can support Simulation exercise of HVAC controls systems, provide practical experiment and exposure, and conduct advanced research and development in the field of intelligent and smart buildings.
15. The BITS Pilani Library in association with Humanities and Social Science and Management Departments organized a one day workshop on Effective Communication and Customer Care on 30<sup>th</sup> October 2018. There were more than 40 participants from various organizations in Pilani. The Director, Prof Ashoke Sarkar as the chief guest, said that the behavior and attitude of the people reflect on the culture of the organization where they work and their commitment and teamwork lead to the success of the organization. The Librarian, Mr. Giridhar Kunkur highlighted the importance of the skills such as communication, teamwork, and caring for customers that helped. The main resource persons of the workshop were Professors Sangeeta Sharma and Sushila Shekhawat from the Humanities and Social Science Department, Prof Jyoti, Head of the Department of Management.
16. The Indo-Israel Workshop on Nanoelectronic Materials and Devices was organized by Department of Electrical and Electronics Engineering, BITS Pilani on November 2, 2018 in association with Tel-Aviv University, Israel. The Chief Guest for the Workshop was Prof Chandra Shekhar, Senior Professor Emeritus,

BITS Pilani and Chancellor, Academy of Science and Innovation Research. The workshop saw ten distinguished lectures by Prof Yosi Sacham, Prof Tamir Tuller and Prof David Elad from Tel-Aviv University, Israel, and Dr Jitendra Singh from CSIR-CEERI Pilani, Prof Sunil Bhand, Prof V. K. Chaubey, Prof Navneet Gupta, Dr Arnab Hazra, Dr Mahesh Angira and Dr Rupam Goswami from BITS Pilani. Nine researchers from various institutes presented their work through posters and a panel discussion was also held in collaboration between BITS Pilani and Tel-Aviv University, Israel in the field of Nano electronics. Prof Navneet Gupta, Convenor of the workshop welcomed all the guests and presented the theme of the workshop. Prof V. K. Chaubey introduced the departmental activities to the audience. Prof Chandra Shekhar highlighted the importance of collaborative research in academia and industry.

17. Two BITS Pilani Alumni Mr. Prashant Palakurthi (78-83) and Mrs. Anuradha Palakurthi ('84) pledged a sum of \$1 Million for setting up a Research Endowment Fund at BITS Pilani. The couple made the announcement during a gala event conducted by Juju Productions, involving a 39 musician band from Bollywood. The event was organized by Mr. and Mrs. Palakurthi to celebrate 40th anniversary of the 1978 batch on 16th November 2018. The event saw a jam packed auditorium of Pilani campus, courtesy of an enchanting 3 hour long singing performance by Mrs. Anuradha Palakurthi.
18. Mr. Kishore Kumar Gupta donated one crore rupees to set up the Kishore Kumar Gupta Electrical Machines Laboratory in Pilani campus. Mr. Gupta's vision of bridging the theory-practice gap in engineering education comes to light in this lab that features coupling and decoupling of different types of state-of-the-art industrial category machines on the same test bench. Catering to the B.E., M.E. and Ph.D. programs, this laboratory also has a high level of safety features and is extremely energy efficient.
19. The International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS-2018) was organized by the Department of Biological Sciences during November 1-3, 2018. The Chief Guest for the Inauguration was Prof Jayant Udgaonkar, Director, IISER, Pune and the guest of honor was Prof Yosi Shacham, Tel Aviv University. The Vice-Chancellor, Prof Souvik Bhattacharyya, The Director, Prof A. K. Sarkar, The Head of the Biological Sciences Department Prof Prabhat Nath Jha, also the convener for the conference, along with eminent scientists and faculty, research scholars and students, were present on the occasion. In his keynote lecture, Prof Jayant Udgaonkar talked on Mechanism of Misfolding and Aggregation of the Prion Proteins, which are disease causing agents. Prof Souvik Bhattacharyya discussed the need of interface between various disciplines of science and engineering. The academic events would include participants from India, Israel, USA, Philippines, Taiwan and Korea.
20. Prof. K.K. Gupta, Department of Electrical and Electronics Engineering, attended a "Symposium on Frontiers of Development in Kigali, Rwanda" fully funded by Royal Academy of Engineering (RAEng), UK during February 12-14, 2018.
21. Dr. Anupam Yadav, Department of Humanities & Social Sciences, attended the 7th ICADA conference on Social Sciences and Interdisciplinary Studies and presented a paper titled "Ecology of Knowledges and Social Justice" at National Institute of Development Administration, Bangkok during May 31 - June 2, 2018.
22. Dr. Monika Gupta, Department of Economics and Finance, attended a workshop on Energy and Environmental CGE Modeling with GAMS organised by EcoMod Modeling School in cooperation with the Singapore Institute of Statistics during January 15-19, 2018 and also presented a paper entitled as "Measuring Effectiveness of Carbon Tax on Indian Road Passenger Transport: A System Dynamics Approach" at 41<sup>st</sup> IAEE International Conference in Groningen, Netherlands during June 10-13, 2018.
23. Prof. Arya Kumar, Department of Economics and Finance, presented a paper titled 'Global Energy, Environment and Transportation Sector--Issues, Challenges and Future Prospects' which was awarded "Distinguished Research Award in recognition of ingenuity and ground-breaking research" in the International Conference on Business and Economics (ICBE2018) and the same in KODISA International conference in Seoul National University, Seoul, South Korea during June 25-27, 2018.
24. Dr. Gaurav Dwivedi, Department of Mathematics, attended the "12<sup>th</sup> AIMS Conference on Dynamical Systems, Differential Equations and Applications" and presented a paper titled "Existence of a solution to a singular semilinear polyharmonic equation with exponential nonlinearity" at National Taiwan University, Taipei City, Taiwan during July 4-9, 2018.

25. Prof. Abhijit Asati, Department of Electrical and Electronics Engineering, visited HPLP (High Performance Low Power) Laboratory, Electrical and Computer Engineering Department, University of Virginia (UVa), Charlottesville, USA, as 'Visiting Assistant Professor' and worked on 'Semi-Automated Power Intent VLSI Design Tool' during May 20, 2018 to July 20, 2018.
26. Dr. Amit Jain, Department of Chemical Engineering, attended an International Conference on Chemical and Process Plant Engineering and presented a paper titled "Studies on Closed-loop Interaction in a Multiloop Control System" at Petaling Jaya, Malaysia on July 26, 2018.
27. Dr. Kamlesh Tiwari, Department of CSIS, organized an International Workshop on Applied Machine Learning (IWAML-2018) and delivered a series of talks on "Machine Learning" at National Institute of Technical Teacher's Training and Research, Kolkata during February 19-23, 2018 and also attended Microsoft Imagine Cup India Final 2018 as a jury member and Participated in Panel Discussion on "Innovation and Entrepreneurship Centered Around Student" at New Delhi during April 19-20, 2018. He also organized an International Workshop on Applied Deep Learning (IWADL-2018) and delivered a series of talks on "Deep Reinforcement Learning" at Indian Institute of Technology Mandi, Himachal Pradesh during July 16-20, 2018.
28. Prof. P. Srinivasan, Department of Mechanical Engineering, conducted two-day training program on "Fatigue, Creep and Fracture related failure of Industrial components and Residual Life assessment" at Hirmi Cements, Raipur during July 21-23, 2018 and also delivered a talk on "Internalising the external cost of Power generation from Coal based power plants in India-An approach to promote Renewable based power generation" at the International Symposium on Fuel and Energy (ISFE2018) in Hiroshima University, Japan during July 2-4, 2018.
29. Dr. Rajesh Kumar, Department of Mathematics, delivered a Talk on "Numerical Analysis of Finite Volume Schemes for Population Balance Equations" at the National Meeting of the Portuguese Society of Mathematics held at Polytechnic Institute of Braganca, Braganca, Portugal during July 9-11, 2018.
30. Prof. Dalip Kumar, Department of Chemistry was bestowed upon ISCB Best Teacher Award in Chemical Sciences for year 2018. The award was received by Prof Kumar in the "24th ISCB International Conference (ISCB-2018) on Frontier Research in Chemistry & Biology Interface, organized by Manipal University Jaipur during January 11-13, 2018.
31. Prof. Dalip Kumar, Department of Chemistry has delivered Platinum Jubilee Award Lecture in the Section of Chemical Sciences at 105<sup>th</sup> Session of Indian Science Congress Association (ISCA) held from March 16-20, 2018 at Manipur University, Imphal. The Platinum Jubilee Lectures are organized in each section. These were initiated in the year 1998 to commemorate the Platinum Jubilee of the Indian Science Congress Association.
32. Prof. Kumar Neeraj Sachdev, Department of Humanities and Social Sciences, received best paper award titled "Modern Age Interventions in Business and Economy: Catches and Keys" in an International Conference on Research in Business (ICRB 2018) held at India International Centre, New Delhi, India on May 20, 2018.
33. Prof. A.P. Singh, Department of Civil Engineering, was appointed as one of the experts in the Selection Committee for recruitment of Civil Engineers by Himachal Pradesh Public Service Commission. He was also nominated in the Expert Selection Committee (ESC) for recruitment of Scientists in the Ministry of Environment, Forest and Climate Change. Rajasthan Government has nominated him as a Jury Member for evaluation of R & D projects submitted at Green-a-Thon, July 26-27, 2018.
34. Prof. Shamsheer Bahadur Singh, Department of Civil Engineering has been selected as Evaluators of Technical Institutions, 2018 by NBA (National Board of Accreditation) and appointed as Editor-in-Chief of Journal of Structural Engineering and Management on May 17, 2018.
35. Prof. Debjyoti Banerjee, Mechanical Engineering Department and Petroleum Engineering Department at Texas A&M University, USA delivered talks on the topic "Nano-Manufacturing for Enhanced Thermal Energy Storage" and "Engineering Education in The Realm of Ethics & Entrepreneurship" on January 3, 2018.

36. Dr. Debmalya Roy, Additional Director, DRDO Kanpur delivered a lecture on "Nanomaterial development activities at DRDO Kanpur" at the Department of Chemistry, on January 09, 2018.
37. Dr. Alan M Punnoose, Assistant Professor from Centre for Regenerative Medicine and Stem Cell Research Central Research Facility, Sri Ramachandra Medical College and Research Institute, Porur, Chennai delivered a talk on 'Tissue Engineering in the Cardiovascular System - Mending a broken heart' at Department of Biological Sciences, on January 15, 2018.
38. Dr. Swati Sharma, leader Advanced Carbon Materials and Devices research group at the Institute of Microstructure Technology, Germany delivered a talk on "Pyrolysis of Polymers: From MEMS/ NEMS to Waste Treatment" at Department of Chemical Engineering on February 5, 2018.
39. Prof. Santanu Mukherjee, Department of Organic Chemistry, Indian Institute of Science, Bangalore, delivered a lecture on "Hydrogen Bonding – A Simple Solution to Challenging Problems" at the Department of Chemistry on February 26, 2018.
40. Prof. Deshdeep Sahdev, Prof IIT Kanpur and CEO Quazar Tech Solutions delivered a talk on "Was our Cosmic Dawn Extra - Dimensional?" at Department of Physics on March 26, 2018.
41. Mr. Ganpati Kamble, Technical Head, Josts Engineering Com Ltd, delivered a talk on the topic "latest Fluid Dynamic imaging techniques used in research and industry" at Department of Chemical Engineering on April 4, 2018.
42. Prof. Debashis Ghoshal (JNU) and Prof Patrick Das Gupta (DU) delivered a talk on "Rendezvous with Black holes: The Legacy of Stephen Hawking" at Department of Physics on April 7, 2018.
43. Dr. Dhileep Krishnamurthy, Chief Scientific Officer, Zhejiang NHU Co. Ltd. delivered a lecture on "Importance of Process Research in API industry" at the Department of Chemistry on July 27, 2018.
44. Dr. Indrashis Bhattacharya, Assistant Professor, Garhwal University delivered a lecture titled "Pubertal Orchestration of Hormones and Testis: Lessons from Rodents to Primates" at Department of Biological Sciences, Rajasthan on July 31, 2018.
45. Prof. Kumar Neeraj Sachdev, Department of Humanities and Social Sciences attended the 24<sup>th</sup> World Congress of Philosophy (WCP 2018) on "Learning to be Human" held at China National Convention Center (CNCC), Beijing, China during August 13-20, 2018, and presented a paper titled "An Ethical Analysis of Employer-Employee Relation, Loyalty and Whistle-Blowing."
46. Dr. Jayashree Mahesh and Anil K Bhat, Department of Management, attended the 2<sup>nd</sup> Conference of Aston India Centre for Applied Research (AICAR), held at Aston University and presented a paper titled "Educating Generation Z- An Ethnographic Insight for Managing and Organizing Higher Education Institutions in the Indian Context" at Aston Business School, Birmingham, UK, during August 31-September 1, 2018 and also attended the British Academy of Management Annual Conference 2018 and presented a paper titled "Understanding the Gap in the 'Umwelts' of Higher Education: The Perceptual Antecedents of Faculty and Student Satisfaction" at Bristol Business School, Bristol UK during 4-6 September, 2018.
47. Dr. Neetu Yadav, Department of Management participated in 6th International Conference on Sustainable Development held at Roma Eventi, Rome, Italy and organized by European Center of Sustainable Development and presented a paper titled "Drivers of Sustainability practices and SMEs: A Systematic Literature Review" during September 12-13, 2018.
48. Prof. Mukesh Kumar Rohil, Department of Computer Science and Information Systems delivered a talk on "*Prolog and LISP Programming for Some Artificial Intelligence Applications in Engineering*"; on September 13, 2018; at TEQIP-III Sponsored Three-Day Faculty Development Program on Applications of Artificial Intelligence in Engineering; Organized by Rajasthan Technical University (RTU), Kota and APEX Institute of Engineering & Technology (AIET), Jaipur; held at AIET, Jaipur.
49. Prof. Manoj Kumar Soni, Department of Mechanical Engineering, Visited campus Universitat de les Illes Balears, Palma de Mallorca, Spain and interacted with Prof. Andreu Moia Pol, Departament de Física,

Àrea d'Enginyeria Mecànica, Universitat de les Illes Balears, Edifici Mateu Orfila, Palma de Mallorca, Spain on October 18, 2018.

50. Dr. Sailaja Nandigama, Department of Humanities and Social Sciences, presented her ICSSR project based research paper titled "Framing the institutional complexity in the Forest Rights Act's (FRA) implementation in India: Making sense of how the FRA interacts with the other parallel forest management institutions" at the 4th Annual International Meeting of the FLARENnetwork (Forests & Livelihoods: Assessment, Research, and Engagement) held at Copenhagen University, Denmark from October 16- 20, 2018.
51. Dr. Pratyush Banerjee, Department of Management, attended the 9th IKMAP Conference and presented a paper titled "Perceived Benefit of XMOOCs in Knowledge Enhancement and Impact on Career Development: A Mixed-Method Study" organized by Hong Kong Polytechnic University & Zhejiang University, Hangzhou, China on November 2, 2018,
52. Prof. Arya Kumar, Department of Economics and Finance chaired a session on Business Ethics and Corporate Social Responsibility, in the 2018 Conference of Ethics and Sustainable Development organized between 29th Oct – 2nd Oct by Graduate Institute of International Business, National Taipei University and Ecological Development Union Asia. He presented a paper titled "Knowledge Management Framework for Decision Support System in Higher Education Institutes in India" in the 11th ISDSI International Conference held at IIM Trichy, December 27th – 30th, 2017. He also presented a paper titled 'Global Energy, Environment and Transportation Sector – Issues , Challenges and Future Prospects" in the International Conference on Business and Economics (ICBE2018) and the 14th KODISA International conference in Seoul National University, Seoul, South Korea, 25th- 27th June 2018 which was awarded "Distinguished Research Award in recognition of ingenuity and ground breaking research.
53. Prof. Sangeeta Sharma, Department of Humanities and Social Sciences presented a paper entitled "Media credibility on election coverage" in the panel " Electoral integrity in a variety of regimes" at Development Research Conference in Gothenberg, Sweden, 22-13 August 2018.
54. Dr. Jayashree Mahesh and Anil K Bhat, Department of Management received the Best Paper Award for Innovative Research for a paper titled 'Educating *Generation Z- An Ethnographic Insight for Managing and Organizing Higher Education Institutions in the Indian Context*', presented at the Second Conference of Aston India Centre for Applied Research (AICAR), Aston University, Birmingham, UK during August 31-September 1, 2018.
55. Prof. Abhijeet Digalwar, Department of Mechanical Engineering has been felicitated by Decision Sciences Institute, USA for the contribution in Indian Subcontinent Decision Sciences Institute on December 30, 2018 during 12<sup>th</sup> Annual ISDSI International Conference at SPJIMR Mumbai.
56. Prof. Abhijit Asati, Department of Electrical and Electronics Engineering received IEEE senior membership position IEEE Region: R10 -Asia and Pacific, Section: Rajasthan Subsection on August 2, 2018.
57. Dr. Neetu Yadav, Department of Management has been awarded Paul R. Lawrence fellowship for participating in 2018 annual meeting of the North American Case Research Association that was held in Florida, USA during October 04-06, 2018. She was one of a group of ten Paul R. Lawrence Fellowship recipients who have been offered this fellowship around the world.
58. Mr. Joy Mukherjee (2015B5A70394P) was selected as the winner of Hackathon Easy Ride - Bonjour India on the theme of smart and sustainable mobility, a flagship program by the French Embassy. The program was graced by H.E Mr Alexandre Ziegler, Ambassador of France to India, along with the Lieutenant Governor of Pondicherry, Ms. Kiran Bedi and Chief Secretary Mr Ashwani Kumar. The competition took place in VelTech University, Chennai during January 22-23, 2018. Joy Mukherjee is awarded the first prize with incubation support and a prize money of Rs. 30,000 for his work on smart and connected urban transportation systems.
59. GnomikX, a healthcare startup from BITS Pilani Campus, was selected winner of the 2018 edition of Empersario, an internationally popular business model competition that was held annually by IIT Kharagpur and was awarded Rs. 2lakhs. The finale of the competition took place at Ambuja Neotia, Kolkata on February 4, 2018. Surbhit Johri (2014B1A30284P), Raja Shukla (2014B5A30850P) and Aditya

Chauhan (2014B1A70408P) (all of whom are dual-degree students in BITS Pilani Campus) and Dr Attya Omer, a scientist at MIT, USA are the founder members of GnomikX. GnomikX also made it to the Nexus incubation programme, which is an ongoing collaboration between the U.S. Embassy and IC2 Institute of Technology, Texas.

60. Animesh Jain (2015B1A40694P) and Satyam Bhaskar (2015B5A30420P) secured the second runner-up position and were awarded with Rs. 30,000 in Schaeffler India, Open Inspiration Challenge. They showcased their prototype design and idea for Autonomous Bike under the topic "Urban Mobility".
61. Schaeffler India, a leading industrial and automotive supplier, announced the 'Open Inspiration India' program last year, visiting 26 colleges across India over the past few months, involving 300 students and gathering a total of 114 entries for the event.
62. Mr. Chhagar Rohnit Singh (2017H1060201P), M.E. Mechanical has been awarded the prestigious *YES Future Ready Scholarship*. It is a scholarship program for empowering future business leaders. The initiative seeks to identify 30 exemplary scholars, from over 20 select business and engineering campuses, and provide them with a scholarship of Rs. 2 lakhs.
63. Google Summer of Code (GSoC) is a prestigious global program wherein students from all over the globe come together for open source software development. This year, a total of 25,873 students from 147 countries registered for the program out of which 1,268 students from 613 universities received acceptance. BITS Pilani secured third position in terms of student selections in the program all over the globe, thus representing the strength of coding culture in the institute. The overall count of BITSians (from all three Indian Campuses) who have been offered GSoC stands at 53.
64. The team 'V1' from BITS Pilani comprising: Aadi Jain (2015A7PS0104P), Anmol Singhal (2015A7PS0069P), Saurabh Manish Raje (2015A7PS0045P) and Nischay Singh (2015A7PS0059P) developed a prototype that helps vehicles to detect pedestrians with infrared light won First Prize at Mercedes-Benz Research and Development India Hackathon, Daimler Hackathon, Bangalore, this winning team was rewarded with a cash prize of Rs 1.5 lakhs.
65. The Mechanical Engineering Department and Mechanical Engineering Association of BITS, Pilani, Pilani Campus organised Chitrath Dagar Memorial Award Ceremony on 23rd April, 2018 in the memory of Chitrarth Dagar. The parents of Chitrarth were present to reward the meritorious students with 'Chitrarth Dagar Scholarship'. Mr. Sishir Suresh Mohammed was adjudged as an all-round "Best Outgoing Student in Mechanical Engineering" and Mr. Saksham Nagar a Computer Engineering student was awarded with the Music Award, which is given to a member of Gurukul.
66. Team BITS is a collegiate team from BITS Pilani with a vision of making fuel efficient cars with zero emissions. The team participated in a fuel efficiency challenge, Shell Eco Marathon Asia which is one of the world's leading energy efficient competitions with 120+ teams from 18 countries. It has made the first Indian car to run on 100% Ethanol which has been presented at Changi Exhibition Centre, Singapore during March 8-11, 2018. The mission of the team for 2019 is to increase the efficiency of the 100% Ethanol-fueled car and the development of a highly efficient electric vehicle. The contemporary team thrives on the geniuses of its 35 talented members from various fields and stages of Engineering and Sciences and has grown into structural organization with subsystems for powertrain, design and aerodynamics, vehicles dynamics and operations.
67. BITS Pilani Students' team "Umang" comprising of Paresh Deshmukh (2016A4PS0412P), Neil Sarkar (2017B2A40997P), Shaily Bhatt (2017A7PS0040P) and Siddhant Dwivedi (2016B3A40315P) won the Case Study Challenge 2018 in the prestigious Indian Road Safety Campaign bagging a cash prize of Rs. 25,000 and goodies. Indian Road Safety Campaign in collaboration with the Ministry of Road Transport and Highways, Government of India and Technex, IIT BHU Varanasi organized the event on March, 2018 which was graced by the presence of Shri Swatantra Dev Singh, Transport Minister, Uttar Pradesh.
68. BITS Pilani students' team comprising of Rishank Pandey (2016A1PS0399), Himanshu Goyal (2016A1PS0629) and Ruddhi Prasad (2016A7PS0021) was selected as one of the Top 5 International Teams in the World Finals of Hilti IT Competition 2018. The team was offered an all-paid trip to Hilti Asia Headquarters, Kuala Lumpur, Malaysia to participate in the competition during March 28-30, 2018 to



present their prototype on-site, where they won the People's Choice Award. Attracting over 400,000 students from 60 countries, the 2018 competition revolved around two major themes: Implementation of Internet of Things and Augmented Reality in the Construction Industry and Digitization of Customer Interaction. Other finalists included the teams from Carnegie Mellon, National University of Singapore and Hong Kong University of Science and Technology.

69. NSS BITS Pilani participated in the National Social Summit organised by NSS IIT Roorkee in which over 25 colleges participated in more than 10 events spread across 3 days during February 3-5, 2018 the theme of the summit being 'Women Empowerment and Child Care'. Siddhant Dwivedi (2016B3A40315P) presented their work in the event "Innovation", for which NSS BITS Pilani bagged the 1<sup>st</sup> position. In "Vaad Vivaad", a debating event related to social issues prevalent in the society, team of 3 students from NSS BITS Pilani Srishti Jain (2016A1PS0583P), Vishal Kumar Jha (2017A1PS0756P) and Sanyam Jain (2017A7PS0014P) also bagged the 1<sup>st</sup> position.
70. Piyush Sharda (2013B5A30440P) was involved in multiple research projects in Astrophysics as part of his summer internships, Off Campus Thesis - Physics and Off Campus Thesis - EEE and joined the Australian National University in Canberra for his PhD in Astrophysics. He worked on the most luminous supernova remnant in a satellite galaxy of the Milky Way. This paper was presented at the 231<sup>st</sup> Annual Meeting of the American Astronomical Society, held at Maryland (USA) during January 8-12, 2018.. The Harvard-led project in which he's a Co-Investigator, was approved by NASA and the Chandra Space Mission Directorate recently, and has received a funding of \$211220 (INR 1,48,19,892) from NASA/CXC. He was made a lifetime Fellow of the Royal Astronomical Society (FRAS) in July 2018, thus being one of the youngest Indians to be made an FRAS. He was also made a Student Member of the European Astronomical Society in April 2018 and is one of the only 3 Indian members of the Society.
71. Sanya Khanna (2017H1490348P) participated in 'Interview Question of the year 2018' contest organised by Plnterview and won the award titled "Winner of interview question of the year 2018" during July 13-25, 2018.
72. Six teams from BITS Pilani have been selected by the Rajasthan Government for the Silicon Valley startup exposure program. The program was held from 25<sup>th</sup> August to 10<sup>th</sup> September 2018, at San Francisco, USA. A total of 20 students from BITS Pilani will be taking part in this competitive educational program. This program has selected 100 students from Rajasthan who will spend 2 weeks in Silicon Valley, San Francisco, California. As a part of the program, the students will get to visit Fortune 10 companies like Google, Facebook, etc. and universities like UC Berkeley & Stanford. Students will get a golden opportunity to pitch their ideas on Google Launchpad and raise funds from the investors of the bay area. Over 7000 applications were received from about 50 colleges across the state, out of which around 30 teams (spread across 100 students) could make it to the final list.
73. The Vertical Flight Society's annual Student Design Competition releases a problem statement every year where each participating team needs to design a VTOL (Vertical take-off and landing vehicle) with given rules and constraints. The only Indian team to win this competition since 2011 in the undergraduate category is Team Garuda which had six then third-year undergraduate members and was mentored by Prof M.S. Dasgupta.
74. Two teams "VR Bros" and "Holosight" from BITS Pilani campus have been selected for "Virtual Reality Program" under "School of Innovation India" from Facebook India and SV.CO. Mayank Bhutani and Koustubh Gupta, fourth year undergraduates, are part of team VR Bros and a third year undergraduate, Utkarsh Tripathi, is sole member of team HoloSight. These teams will receive the benefit of participating in the six months Program which begins on August 1, 2018 and ends on January 31, 2019.
75. Mr. Siddharth Mehta, a third-year student at BITS Pilani, Pilani Campus, has been chosen among the 25 member contingent to represent India at the World Youth Forum 2018, to be held at Egypt in November. In this event, young leaders from over 160 countries unite, exchange views and recommend initiatives to influential figures. Siddharth is a member of Team Pixel, which is participating in the IBM Watson AI Xprize Competition and has also been a part of the core contingent of team Hyperloop India that represented the country at SpaceX Headquarters in California.

76. A student of BITS Pilani, Tanuj Kumar, represented the university at the Open Source Cubesat Workshop organized by the European Space Agency which was held at the European Space Astronomy Center, Madrid, Spain from 24-25 September 2018.
77. Pepper, a startup in the Content Creation industry was formed by- Anirudh Singla, Adit Mittal, Rishabh Shekhar, and Parv Panthari - in their sophomore year. Pepper is a content creation platform that connects talented writers to organizations that require content.
78. Suvigya Vijay (f2015606) and Shivani Singh participated in a global business case challenge - Schneider Electric's Go Green in the City 2018 as Team "BITS Pilani" and have emerged as the winners of the Greater India Region and will be visiting Atlanta, US for the global finals. They became a part of the top 10 teams 24,000 students registered across the globe from 180+ countries.
79. Siddharth Shankar Tripathi (f2014365) has been selected by Indian School of Business as a young leader and has been offered admission through the prestigious YLP program. Only 90 students pan India are selected for this prestigious scholarship.
80. Ananyashree Garg (ID No. 2015A7PS0117P) won the award title GHCI Scholar in the event Grace Hopper Celebration India at Bangalore during November 14-16, 2018. Grace Hopper Celebration India (GHCI) is India's largest technical conference for women in computing and technology.
81. Rudhir Mehra (2018A4PS0523P), Nandita Mathur (2018B3PS0374P), Bir Anmol Singh (2018A7PS0261P) and Maithil Mehta (2018A7PS0345P) team of 4 students were awarded with Hult Prize 2019-Campus Round at BITS Pilani- Pilani Campus 3rd November 2018. The Hult Prize, established in 2010 is an annual, year-long competition that crowd-sources ideas from MBA and college students after challenging them to solve pressing social issues. They will now represent BITS Pilani in the World Regional Semi-Finals in March 2019 with their idea of the '2nd Innings Homes, a 3D Printing Social Housing Concept' for a seed funding of USD 1 Million.
82. Srujan Penta (ID 2015A3TS0087P), Final Year, was awarded the Best Graduating Student Award, 2018 by the Professor L.K Maheshwari Foundation, EEE Dept, BITS Pilani during the EEE/ENI Farewell on 21<sup>st</sup> Nov 2018.

#### K.K. Birla Goa Campus

1. Convocation 2018 ceremony was held on 05<sup>th</sup> August, 2018 at K.K. Birla Goa Campus for the graduating students who completed the eligibility requirements in the academic year 2017-18. Degrees were awarded to 573 First Degree, 36 Higher Degree and 30 Ph.D. Degree students from BITS Pilani, K.K. Birla Goa Campus. Three students from Bachelor's degree programmes were awarded Medals: Gold medal – Mr. AMIT AGARWAL; Silver medal - Ms. QUADROS KAREN ADITI; and Bronze medals Mr. ADAVIT PRASAD KOPARKAR.
2. BITS Pilani, K K Birla Goa campus, hosted the first two-week Engineering Ethics Programme organized for 17 students of Texas A&M University, USA. The professors of Texas A&M University, Prof. Paul Mario Koola and Prof. John Curry O'Day, jointly conducted this course for their students at BITS Pilani, K K Birla Goa Campus, from 28<sup>th</sup> Dec 2017 to 15<sup>th</sup> Jan 2018. The programme was jointly coordinated by Prof. N. N. Ghosh (Professor, Dept. of Chemistry), Associate Dean, International Programmes and Collaboration Division (IPCD), and Prof. M. Srikanth (Professor, Dept. of Biological Sciences) the former Associate Dean, IPCD.
3. 73<sup>rd</sup> Meeting of the IFIP WG 10.4 was held from 11<sup>th</sup> to 15<sup>th</sup> January 2018 with a special focus on "Emerging Challenges for Resilience of Cloud-based Operations: when privacy meets availability." This meeting came to India after a gap of more than 30 years and was attended by nearly 30 participants from Europe, USA and Japan. The workshop was organized by Prof. Paulo Esteves-Verissimo (University of Luxembourg, Luxembourg) and Prof. Santonu Sarkar (BITS Pilani, K K Birla Goa Campus).
4. The "International Conference on Reproductive Biology and Comparative Endocrinology" (ICRBCE 2018) was held from 20<sup>th</sup> to 22<sup>nd</sup> January, 2018. It was convened and organized by Dr. Arnab Banerjee, Dept. of Biological Sciences, BITS Pilani, K K Birla Goa Campus. Prof. Ramaballav Roy, Dept. of Zoology, Goa

University, was the co-convenor for the conference. In all, there were 93 presentations made during the conference, with 11 plenary lectures and 25 invited lectures, 18 oral and 38 poster presentations, wherein the participants broadly discussed their research. Prof. Bruce D Murphy, University of Montreal, Canada, delivered the keynote lecture titled 'Regulation of Embryonic Diapause'. The topics such as embryo development, metabolic disorders, endocrine disruptors, reproductive biology to in vitro fertilization (IVF) were discussed.

5. The first Symposium on 'Sustainable Technologies for Food Processing and Preservation' was held on 8<sup>th</sup> and 9<sup>th</sup> Feb 2018. The Symposium was jointly organized by SINTEF Ocean, BITS Pilani and IIT Kharagpur and funded by the INTPART-programme subsidiary of The Research Council of Norway. Re-FOOD is an international partnership for research and education in energy efficient resource utilization in FOOD value chains between Norway and India.
6. International Conference on Economics and Finance (ICEF 2018) was held on 16<sup>th</sup> – 17<sup>th</sup> Feb 2018. The conference was inaugurated by Prof. Gunaje Raghurama, Director, BITS Pilani, K K Birla Goa campus, in presence of Mr. Andreas Bauer, Senior Resident Representative, IMF (India). The two-day conference included several presentations from industry and academia experts including an insightful presentation by Dr. Viral Acharya, Deputy Governor of Reserve Bank of India. The conference was supported by ICSSR and provided an avenue for disseminating information on contemporary research and future practices in economics and finance.
7. Bhabha Atomic Research Centre (BARC) in association with Department of Chemistry, BITS Pilani, K K Birla Goa Campus, and the Association of Separation Scientists and Technologists (ASSET) organized the eighth edition of DAE-BRNS biennial symposium on “Emerging Trends in Separation Science and Technology (SESTEC-2018)” from 23<sup>rd</sup> to 26<sup>th</sup> May 2018. The four-day symposium attended by about 250 delegates from India and abroad, was inaugurated by Prof. P R Vasudeva Rao, Vice Chancellor, Homi Bhabha National Institute, Mumbai.
8. BITS Pilani, K K Birla Goa Campus, hosted and organized the 12<sup>th</sup> World Congress of the Regional Science Association International in collaboration with Town and Country Planning Department of Goa and the Regional Science Association (RSA), India, from 29<sup>th</sup> May to 1<sup>st</sup> June, 2018. The Congress, attended by over 500 delegates from India and abroad, was held for the first time in India at Goa. Her Excellency, Dr. Smt. Mridula Sinha, Governor of Goa, inaugurated the Congress.
9. Department of Mathematics organized the International Conference on Discrete Mathematics and its Applications to Network Science (ICDMANS 2018) during 7<sup>th</sup> – 10<sup>th</sup> July, 2018. Over 100 delegates from India and other countries like, Germany, Slovakia, USA, Taiwan, Indonesia participated in the conference. The conference was sponsored by NBHM, DRDO and HMEL.
10. First ever students' conference Symposium and Workshop for Analytical Youth on Applied Mechanics (SWAYAM-2018) was organized by the Department of Mechanical Engineering, during 4<sup>th</sup> to 6<sup>th</sup> July, 2018. Around 150 research papers were presented in the area of solid mechanics, fluid mechanics, biomechanics and material science. SWAYAM-2018 received encouraging & positive feedback from the participants, especially from the faculty members/invited speakers from IISc Bangalore, IIT Madras, IIT Ropar, IIT Delhi, NIT Allahabad and scientists from DRDO.
11. BITS Pilani, K K Birla Goa Campus, in collaboration with Fulbright Educational Exchange Program organized a six-week workshop on Engineering-Economics-Entrepreneurship from 28<sup>th</sup> May to 6<sup>th</sup> July, 2018 at BITS Pilani, Goa Campus. The workshop was conducted and mentored by Fulbright Specialist (FS) Dr. Ashok Kumar Ghosh, Ph.D., P.E, from the University of New Mexico, USA, and other expert faculty members from BITS Pilani. Over 25 students and faculty members attended the seminar to evaluate two business cases.
12. Programmes organised by Department of Biological Sciences
  - A poster day was held on 24<sup>th</sup> April 2018 by the Research Scholars of the Department.
  - A workshop on “Scientific Manuscript Writing” was held on 24<sup>th</sup> March 2018.
13. Workshops organised by Department of Humanities and Social Sciences:

- Workshop on Script Writing and Basic Cinematography was conducted by National award-winning filmmaker, Mr. Abhay Sinha on 16<sup>th</sup> February 2018.
  - Workshop on Writing for the students of BITS Pilani, K K Birla Goa Campus was conducted by Environmental Historian at Western Washington University, USA Prof. Mart Stewart (Fulbright Senior Scholar at BITS Goa) on 07<sup>th</sup> April 2018. Prof. Stewart had joined as a Fulbright Senior Scholar in the Department of HSS (from January to May, 2018).
14. Prof Gunaje Raghurama, Director was invited to the Erasmus Mundus Action 2 Concluding Workshop from 28<sup>th</sup> to 29<sup>th</sup> June, 2018 at the Georg-August-Universität Göttingen, Germany. He attended the same to review and evaluate the implementation of the EMA2 programme and the corresponding projects, as well as the sustainability of the cooperation founded within this framework. Prof Raghurama was the coordinator from BITS Pilani, of the NAMASTHE mobility project, which provided scholarships for Indian students and scientists to spend a mobility period in Europe in a wide variety of academic fields at different levels of study (Undergraduate, Master, PhD, Post-Doc, and Staff).
  15. Dr. Ranjit Shankarrao Patil, Department of Mechanical Engineering, attended the 23<sup>rd</sup> International Conference on Fluidized Bed Conversion at Seoul, South Korea, held from 13<sup>th</sup> to 17<sup>th</sup> May, 2018.
  16. Prof. Veeky Baths, Department of Biological Sciences, visited University of Leeds, UK, during May to July, 2018. He was appointed as a Visiting Research Fellow in the School of Biomedical Sciences. He worked with Dr. Samit Chakrabarty on neuro-prosthetic applications for neurological disorders and Mouse Behavioral Testing.
  17. Prof. Veeky Baths, participated in the UK Sensory Motor Conference and delivered an invited talk on Using EEG to decipher consumer choice held at University of Leeds on 23<sup>rd</sup> June 2018.
  18. Prof. Vijayashree Nayak, Department of Biological Sciences, attended University Immersion Program at University of Texas, USA.
  19. Prof. Kundan Kumar, Department of Biological Sciences, chaired a session in the South Asian Biotechnology Conference 2018, held between 28<sup>th</sup> and 30<sup>th</sup> March 2018, Colombo, Sri Lanka.
  20. Prof. Radhika Vathsan, Department of Physics, has been a Long-term Visitor at the Institute for Quantum Computing, University of Waterloo, ON, Canada from 01<sup>st</sup> June to 10<sup>th</sup> July 2018.
  21. Prof. Radhika Vathsan delivered a talk titled "Subtle aspects of Quantum Information: complementarity and uncertainty" at the Department of Physics, University of Windsor, ON, Canada on 26<sup>th</sup> June 2018.
  22. Prof. Prasanta Kumar Das, Associate Professor, Department of Physics, has been a Visiting Research Professor at the Department of Physics & Astronomy, University of Kansas (KU), Lawrence, KS, USA from 19<sup>th</sup> May to 13<sup>th</sup> July 2018. Prof. Das was hosted by Prof. Douglas McKay and Prof. K C Kong. At KU, he also delivered a talk titled "Nonequilibrium Statistical Mechanics and its Application in Astrophysics & Collider Physics" on 29<sup>th</sup> May, 2018.
  23. Prof. Prasanta Kumar Das, was invited by Prof. Bhupal Dev of Department of Physics of Washington University (WU) at St. Louis, MO, USA where he delivered a talk titled "Nonequilibrium Statistical Mechanics, fermion dark matter and supernova SN1987A cooling" on 18<sup>th</sup> June, 2018.
  24. Prof. Prasanta Kumar Das, was invited by Prof. Bharat Ratra of Department of Physics, Kansas State University (KSU), Manhattan, Kansas City, USA, to deliver a talk titled "Tsallis statistics and its application in High Energy Physics and Astrophysics" on 22<sup>nd</sup> June, 2018.
  25. Prof. Prasanna Kumar Nekkare, Associate Professor, Department of Mathematics, presented a research paper on "Inequalities Involving Polar Derivative of a Polynomial with Restricted Zeros," in the 14<sup>th</sup> Serbian Mathematical Congress held at the Department of Mathematics, University of Kragujevac, Kragujevac, Republic of Serbia, Europe, during 16<sup>th</sup> – 19<sup>th</sup> May, 2018.
  26. Dr. Gauranga Charan Samanta, Assistant Professor, Department of Mathematics, presented a paper entitled "Three fluid cosmological models in general relativity" in an International Conference titled "String-Math-2018" at Tohoku University, Sendai, Japan, from 18<sup>th</sup> to 22<sup>nd</sup> June, 2018.

27. Prof. Raghu Nath Behera, Department of Chemistry, visited West Dover, VT, USA, to attend the Computational Chemistry Gordon Research Conference: "Towards Next-Generation Challenges in Computational Chemistry: From Quantum Chemistry and Molecular Simulation to Data Discovery and Quantum Computing" during 22<sup>nd</sup> - 27<sup>th</sup> July, 2018; and presented his work titled "Computational Study of Catalytic Mechanism of some Diselenide-based Glutathione Peroxidase Mimetic."
28. Prof. Ranjan Dey, Associate Professor, Department of Chemistry, spent the summer of 2018 (June- July) as an Academic Visitor in the Department of Chemistry, University of Cambridge, under the University Immersion Program of BITS-Pilani where he worked with Prof. David Wales, a world renowned authority in the field of potential energy landscapes.
29. Prof. Ranjan Dey, Associate Professor, Department of Chemistry delivered a talk at the Department of Chemistry, University of Cambridge, Cambridge, U.K., entitled "Novel, Simple and Effective Pathways for Viscometric Prediction of Binary and Higher Order Mixtures" on 18<sup>th</sup> June, 2018.
30. Prof. Reena Cheruvalath, Associate Professor, Department of Humanities and Social Sciences was a Visiting Research Scholar at Graduate School of Education, University of Tokyo, during May to July, 2018.
31. Dr. Parichay Patra, Assistant Professor, Department of Humanities and Social Sciences, delivered a invited talk on "Memorias de la revolución: Historia, Cine y lo Contemporáneo" at the VI Jornadas Internacionales y IX Nacionales de historia, arte y política, Universidad Nacional del Centro de la Provincia de Buenos Aires, Argentina on 22<sup>nd</sup> June 2018.
32. Dr. Parichay Patra, Assistant Professor, Department of Humanities and Social Sciences has presented a paper on "Cinema, Politics and the Contemporary: Absence and Astrophysics" at Ireland India Institute, Dublin City University, Ireland, on 26<sup>th</sup> – 27<sup>th</sup> April, 2018.
33. Dr. Parichay Patra, Assistant Professor, Department of Humanities and Social Sciences was a Visiting Scholar at Instituto Investigaciones Gino Germani, Facultad de Ciencias Sociales, Universidad de Buenos Aires, Argentina from 5<sup>th</sup> June to 4<sup>th</sup> July, 2018.
34. Prof. Rudra Prasad Pradhan, Associate Professor, Department of Humanities and Social Sciences, presented a paper on "India & Chinas' Trade, Terms of Trade & Comparative Debt Analysis with Mekong Economies: Case of Economic Regionalism" at the Vietnam Economics Association Meeting VEAM 2018 in Hanoi, Vietnam, on 11<sup>th</sup> to 12<sup>th</sup> June, 2018.
35. Prof Gunaje Raghurama, Director, BITS Pilani K K Birla Goa Campus has delivered an endowment Lecture organised by St Aloysius College, Mangalore, on 22<sup>nd</sup> June 2018. He was also felicitated as a distinguished alumnus of the college.
36. Dr. Vikas Vinayak Chaudhari, Assistant Professor, Department of Mechanical Engineering, conducted a two-day training program on "Fatigue, Fracture & Creep" at Visakhapatnam Steel Plant, Visakhapatnam (30<sup>th</sup>& 31<sup>st</sup> Jan 2018)
37. Dr. Vikas Vinayak Chaudhari, Assistant Professor, Department of Mechanical Engineering, conducted a three-day faculty development program on "Engineering Graphics with AutoCAD" at Indrashil University, Rajpur, Gujarat, during 27<sup>th</sup> to 29<sup>th</sup> June, 2018.
38. Prof. Rajesh Mehrotra, Associate Professor, Department of Biological Sciences, delivered a Plenary Talk entitled "Genomic analysis of cis regulatory elements and its experimental validation in model Plant Arabidopsis thaliana reveals spacer distance between ACGT cis regulatory elements governs differential gene expression in response to salicylic acids and abscisic acids" at the B.N. Bandodkar College of Science, Thane, on 12<sup>th</sup> January 2018 in the Multidisciplinary International Conference on "Green Earth: A Panoramic View."
39. Prof. Kundan Kumar, Associate Professor, Department of Biological Sciences, delivered an invited lecture at the Western Regional Seminar on Frontiers and Innovation in Plant Sciences, organized by the Department of Botany, Parvatibai Chowgule College of Arts and Science, Goa.
40. Prof. Alamelu Geetha Krishnamurthy, Associate Professor, Department of Humanities and Social Sciences, was the plenary speaker at the International conference on Cultural Semiotics of English Language and

Literature organized by English language Teachers Association of India (ELTAI) and Hindu College at Chennai, March 2018. She presented a paper titled "Memory as Communication."

41. Dr. Rayson K. Alex, Assistant Professor, Department of Humanities and Social Sciences delivered the keynote address titled "tinai, indigenous cosmopolitics and Indian indigeneity" at the 10<sup>th</sup> National conference of SRM University, Chennai, themed "Nature, Culture, Language and Literature: Narratives and Critical Practices" on 16<sup>th</sup> of April, 2018.
42. Mr. Tirtharaj Dash, Assistant Professor, Department of Computer Science & Information Systems, was selected for full travel grant from The European Association for Artificial Intelligence (EurAI) to participate in the Relational Artificial Intelligence Days (RAID-2018) from 27<sup>th</sup> August to 4<sup>th</sup> September, 2018, at Ferrara, Italy.
43. Prof. Pravin Madanrao Singru, Professor, Department of Mechanical Engineering, is appointed subject expert on Board of studies of Mechanical Engineering, Shri Ramdeobaba College of Engineering, Nagpur (Autonomous).
44. Prof. Korneel Rabaey from Ghent University Belgium and Prof. Srikanth Mutnuri, Professor, Department of Biological Sciences, received Belgian Committee of the International Water Association's Water Development Collaboration award for the year 2018.
45. "INSA Visiting Scientist Fellowship" was awarded to Prof. Utpal Roy, Professor, Department of Biological Sciences, by Indian National Science Academy.
46. A team of BITS Pilani Goa Campus students including Yash Zanwar, Aditya Dhoot, Gaurav Gandhi, Mrinav Saxena, Sreeram M, and Souradeep Chakraborty represented India in the Inaugural edition of International Quant Championship held at Singapore in September. The international quant championship is an annual event which occurs in 3 stages, with final one being international rounds. Over 11,000 participants from more than 80 countries and 1000+ universities took part in this competition, and the BITS team has been selected as one of the top 12 teams worldwide, while first in the country.
47. Team Grease Monkeys from BITS Pilani Goa Campus secured 32<sup>nd</sup> rank at the annual SAEINDIA BAJA competition. It is the best ever performance of the team, since it came into existence in the year 2014. The competition consisted of two stages, with the first stage assessing the virtual design of teams and the main event that requires the teams to design, build and race-off road vehicles that can withstand the harshest elements of rough terrain. In addition to this the team has achieved 21<sup>st</sup> rank in design round. In contrast to the 124<sup>th</sup> rank in the last year's competition, this jump has only been possible due to complete revamp in the change in the approach towards the design of the all-terrain vehicle. Improved coordination, necessary groundwork and mastering the basic concepts of Automotive Engineering and Vehicle Dynamics are the key to the success of the team. In addition to this, appropriate foundations in the form of systematic archives have also contributed towards the smooth designing of the vehicle.
48. BioP India ([www.biopindia.in](http://www.biopindia.in)) is an initiative from the students of BITS Pilani Goa Campus to provide an intelligent and affordable desktop solution for 3D bioprinting. The device, ideated by Siddharth Kumar Sah, is similar to a normal printer but a little different – it doesn't use an ink cartridge, but biological cells to print human tissues and organs using 3D modeling software on a computer by the process of laying down many thin layers of the bio-ink in succession for use in medical and tissue engineering fields.
49. Center for Technical Education (C.T.E.), the largest technical department on campus, conducted technical and non-technical workshops in schools across Goa. Something similar is being done by clubs like Nirmaan and Abhigyaan, but for underprivileged. CTE aimed for schools having students who are ambitions to pursue Science and Humanities post-high school. In the Navy school, CTE successfully conducted 7 workshops: Drama Club- 3 workshops, LDC (Literary and Debating Club) - 1 workshop, ERC (Electronics and Robotics Club) - 1 workshop. Celestia - 2 workshops. CTE funded 9 projects that was decided by a committee consisting of CTE Coordinator and Faculty Members from across the departments.
50. Project Sand Submarine topped in Central Zone Round of DRDO Robotics & Unmanned Systems Exposition. A team consisting Abhinav Gupta, Rohan Godiyal, Siddharth Kumar and Ashutosh Kumar Gupta, students of Mechanical and Electrical and Electronics programme, participated in the DRUSE

(DRDO Robotics & Unmanned Systems Exposition) organised by DRDO (Ministry of Defense). Their Project Sand Submarine qualified for final round cum National Exposition held at DIAT (Defence Institute of Advanced Technology), Pune on 24<sup>th</sup> – 25<sup>th</sup> May 2018. They were among the top 30 teams to showcase their idea among 1088 nationwide participating teams and were adjudged 1<sup>st</sup> bagging Rs. 60,000/- cash prize in Central Zone Round, winning among IIT Bombay, NITs and various colleges of Pune in Central Zone.

51. Project Apeiro: India's first student-led Micro-satellite launched from TIFR Balloon Facility, ECIL, Hyderabad. Project Apeiro is an experiment led by undergraduate students including Sanket Deshpande, Lucky Kapoor, Shivangi Kamat, Vibhav Joshi and Pankaj Tiple. The experiment aimed to detect and measure cosmic radiation in stratosphere.
52. Dr. Bhakti Salgaonkar (CSIR RA), a student from Prof. Judith Bragança's group, received SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) BIRAC (Biotechnology Industry Research Assistance Council) Appreciation Award for her work entitled "Polyhydroxyalkanoates Production by Microorganisms from Sustainable Resources" carried during the 30 days Biotech Innovation Ignition School-3 (BIIS-3) on "Opportunity for Women biotechnology students to work on grassroots innovations and microbial diversity" at Ahmadabad, Gujarat, India from 30<sup>th</sup> April to 29<sup>th</sup> May, 2018.
53. Dr. Bhakti Salgaonkar (CSIR RA), student from Prof. Judith Bragança's group, received First best Oral Presentation Award for the paper entitled "Polyhydroxyalkanoates Production by Extremely Halophilic Archaea from Sustainable Resources" at International Conference on "Microbial Technology for Better Tomorrow (ICMTBT-2018)", Organized by Dr. D. Y. Patil Arts, College, Pune, Maharashtra, India in association with Microbiologist Society, India", from 17<sup>th</sup> – 19<sup>th</sup> February, 2018.
54. Ms. Dhavala Suri (2013PHXF0015G), a PhD student in the Department of Physics, was appointed as Postdoctoral Associate at Massachusetts Institute of Technology (MIT). She worked under the supervision of Dr. Ram Shanker Patel, on her thesis titled "Study of Electronic and Thermal Transport Properties of Transition Metal Dichalcogenides for Device Applications".
55. Ms. Medha Tripathi, PhD Student of HSS department received Erasmus Mundus Scholarship to do research in Gent University, Germany.
56. Ms. Gnana Bharathi PhD Student of HSS department participated in a short-term summer school program in Lisbon, Portugal and presented a paper titled "Ecology as semiotics: A paradigm for human ecology" in Singapore.
57. Mr. Sushant Kishore PhD Student of HSS department presented a paper titled "The Crucibles of Hindu Nationalism: Games, Playground and Propaganda" at Imperial College London.
58. Ms. Jiss Maria Louis (2015PHXF401G), a PhD scholar from Dr. Indrani Talukdar's lab, won the Best Oral Award (First Position) at National Conference of Young Researchers 2017 conducted at Goa university from 16<sup>th</sup> to 17<sup>th</sup> March, 2018, for the paper presentation entitled "TNF alpha mediated alternative splicing in type 2diabetes: a genome wide approach."
59. Ms. Mansi Baveja received the Best Oral Presentation Award for the paper entitled "Hemotoxic and Wound Healing Properties of Coelomic Fluid of Sea-Star *Astropecten indicus*" at the National Conference on Bio-Active Marine Natural Products and Their Therapeutic Applications held at the Sathyabama Institute of Science and Technology, Chennai, on 24<sup>th</sup> and 25<sup>th</sup> January, 2018.
60. Ms. Zantye Pranjita Ganesh was awarded the DST-CEFIPRA Fellowship For ESONN Programme 2018 for undergoing training in the field of Nano-sciences and Nanotechnology to be held at Grenoble, France (Aug-Sept 2018). Her Ph.D. supervisor is Prof. Meenal Kowshik.
61. Mr. Rehan Ahmed Deshmukh was awarded the ICMR-Senior Research Fellowship for the project titled "Development of nucleic acid-based biosensor for rapid and differential detection of E. coli strains in water." Mr. Deshmukh works under the supervision of Prof. Utpal Roy.
62. Ms. Starlaine Mascarenhas was awarded the ICMR-Senior Research Fellowship for the project titled "Study of Environmental Toxins in Chronic Kidney Disease of unknown etiology in Canacona Taluka, Goa."

63. Mr. Avijit Das was awarded the CSIR-Senior research fellowship (SRF) for his research titled “Studies on the gene regulation involved in the lytic-lysogenic switch in Staphylococcus aureus temperate bacteriophage Phi11.” His broad area of Research is Gene Regulatory Elements of Bacteria and Bacteriophages, which is pursued under the supervision of Dr. Malabika Biswas.
64. Mr. Joseph Fernandes was awarded the ICMR-Senior Research Fellowship. He works under the supervision of Dr. Arnab Banerjee.
65. Ms. Chitra Nair was awarded the ICMR-Senior Research Fellowship for her research titled “Study of hemotoxins and cytotoxins from Indian spectacled cobra and russell’s viper venoms.” Her supervisor is Prof. Dibakar Chakraborty.
66. Ms. Prajakta Patil was awarded the Bill & Melinda Gates Foundation award for undergoing training of Teachers programme in Sanitation at IHE Delft Institute for Water Education to be held at Delft, Netherlands, from 28<sup>th</sup> May to 30<sup>th</sup> November 2018. His Ph.D. supervisor is Prof. Srikanth Mutnuri .
67. Ms. Anumeha Vats and Ms. Priya Sharma were awarded the Summer School on Resource Recovery and Reuse by International Water Management Institute for undergoing training in the International Water Management Institute to be held at Colombo, Srilanka, from 22<sup>nd</sup> to 28<sup>th</sup> July, 2018. Their supervisor is Prof. Srikanth Mutnuri.
68. Mr. Arunav Konwar (2013B1A80905G) won TechCrunch Hackathon held on 25<sup>th</sup> – 26<sup>th</sup> May, 2018 at VivaTech in Paris, France. Arunav built an Artificial Intelligence (AI) Platform to enable experts to quickly analyze sentiments of autistic children. This event was a part of the Microsoft AI Challenge.
69. Mr. Aman Dalal from the department Mechanical Engineering has been awarded the Holland Scholarship from the Dutch Ministry of Education and Delft Faculty Scholarship to pursue MSc in Integrated Product Design at TU Delft, The Netherlands.
70. Aman will pursue a 2-year Masters degree in a course that is a unique multidisciplinary blend of design and engineering. Having a background in mechanical engineering from BITS Pilani, Goa Campus, extensive experience in graphics at his design firm Pixelworks, and a thesis in sustainable product design at National Institute of Design - Ahmedabad, Aman found a perfect fit in the design degree offered by TU Delft.
71. Ms. Heer Joisher has been awarded the prestigious Khorana Scholarship 2018 sponsored by the Department of Biotechnology, Govt. of India, Indo-US Science and technology Forum (IUSSTF) and WINStep Forward. As a part of this program, Heer pursued a two month summer research project at the Massachusetts Institute of Technology, MA, USA. She worked under the mentorship of Prof. Graham Walker at the Department of Biology, MIT on a project involving expressing antimicrobial peptides and peptides related to symbiosis from various sub cellular compartments of the cell.
72. Ms. Honey Jain, Mr. Jaychandran Padayasi and Mr. Devvrit have been awarded the prestigious Mitacs Globalink Research Internship 2018 sponsored by Government of Canada. The Mitacs Globalink Research Internship is a competitive initiative for students from 10 countries of Australia, Brazil, China, France, India, Germany, Mexico, Saudi Arabia, Tunisia, and Ukraine. From May to October of each year, top-ranked applicants participate in a fully-funded 12-week research internship under the supervision of Canadian university faculty members in a variety of academic disciplines, from science, engineering and mathematics to the humanities and social sciences. As a part of this program, Honey pursued a 12-week summer research project at the Université Laval, Quebec under the mentorship of Prof. Christian Landry on a project based on computational biology involving protein interaction networks. Jaychandran pursued a 12-week summer research project at the University of Sherbrooke, Quebec under the guidance of Prof. André-Marie Tremblay, on the topic, Spin fluctuations in Weyl semimetals. Devvrit interned at University of Montréal, under Prof. Ben Seamone and Prof. Gena Hahn on the topic “Cops and Robbers on Graphs”, and on “Eternal Domination in Graphs”.
73. Mr. Nissim Gore-Datar has been awarded the prestigious Summer Undergraduate Research Fellowship of the California Institute of Technology (Caltech SURF 2018). As part of this program, Nissim will work under the guidance of Prof. Michael Hoffmann from the Department of Environmental Science and Engineering at



Caltech on a project titled 'Electro-Fenton Process for Decentralized Treatment of Municipal Wastewater', which aims to design and prototype on-site electrochemical reactors to treat wastewater for reuse.

74. Mr. Rachith Aiyappa has been awarded the prestigious Charpak Research Internship Scholarship 2018 sponsored by the French Government. As part of this programme, Rachith will be pursuing a summer internship at the Centre de Recherches sur la Cognition Animale at Université Paul Sabatier, Toulouse, France. He will be working under the guidance of Dr. Guy Theraulaz in the field of Collective Behaviour.
75. Mr. Suparno Pal, a third year student in the department of Electrical and Electronics Engineering has been awarded the prestigious DAAD WISE Scholarship 2018. As part of this scholarship, Suparno will be pursuing a 12 week summer research project at the Technical University of Munich, Germany. He will be working with the Neuroelectronics Group to develop a portable device for screening nanoparticle impurities in water. This project has a larger scope towards developing better sensing platforms for neurodegenerative applications in vitro.
76. Ms. Piyashi Biswas (2014B2A30889G) a First Degree student, published a paper in Journal of Molecular Liquids titled 'A Novel and Effective Approach for Viscosity Prediction of Binary and Multicomponent Liquid Mixtures' Vol 265, PP 356 – 360 (Elsevier; Impact Factor:4.513) Co-authored with Prof. Ranjan Dey.
77. Mr. Patil Siddhant Vitthal (2015A8PS0475G): During the recent academic semester, Siddhant received the prestigious BITSAA Mantra - Innovator of the Year 2017-18 Award. BITS CSA 2017-18 awarded him the Felicitation Fund 2017-18 for appreciating his research activities. He presented a paper titled "Design of Voltage Amplifiers with Optimization of Multiple Design Parameters" at the IEEE - ICCIC 2017 Conference held during 16<sup>th</sup> – 17<sup>th</sup> March 2018. He also presented the paper titled "Asset Allocation Strategies in Taiwan and India" at the Two Day International Conference on Emerging Issues and Challenges in Commerce and Management held during 6<sup>th</sup> – 7<sup>th</sup> April 2018. Currently, he is pursuing his funded undergraduate thesis at Technische Universität - Dresden, Germany.
78. Mr. Rachith Aiyappa won Men's Doubles at the Clube Tennis de Gaspar Dias Open 2018 hosted in association with the Goa State Tennis Association. He was also declared Runner Up in Men's Singles at the same tournament.
79. A total of 28 Students visited international universities to do First Degree Thesis in SEM II AY 2017-18, of which 7 students received partial travel support of Rs. 12,500/- each from IPCD.

#### Hyderabad Campus

1. Convocation was conducted on Sunday 12<sup>th</sup> August, 2018. Prof. Souvik Bhattacharyya, Vice Chancellor and Prof. G Sundar, Director, Hyderabad Campus gave away the Degrees. During the Convocation 793 students from First Degree, Higher Degree and Ph.D received their degrees. Four students from Bachelor's degree programmes were awarded Medals: Gold medal–Aniketh Janardhan Reddy & V Arvind Rameshwar; Silver medal – Kevin Biju and Bronze medal – Dusi Aditya.
2. Prof. Kumar Pranav Narayan received "Best Professor in Biological Sciences" Dewang Mehta National Education Award (Regional Round), at Taj Banjara, Hyderabad on 16<sup>th</sup> November, 2018.
3. Prof. Kumar Pranav Narayan was invited as Chief Guest in National Seminar on 'Food Safety, Quality and Policy' on 28<sup>th</sup> and 29<sup>th</sup> June 2018 in the Department of Microbiology, Government Degree College, Gajwel.
4. Dr. Ruchi Jain Dey received US Patent for a genetically engineered vaccine with a potential against tuberculosis and cancer.
5. Ramalingaswami Fellowship, 2017 awarded to Dr. Ruchi Jain Dey was sanctioned.
6. Prof. Kumar Pranav Narayan (BITS) played a key role in developing potent platform technology to treat aggressive and relapsing cancers along with Dr. Rajkumar Banerjee (Principal Scientist, IICT, Hyderabad).
7. Prof. J. Subbalakshmi was selected as Distinguished Woman in Science by Venus International Foundation.
8. Dr. Amit A. Vernekar received Outstanding and Recognized Reviewer Citation by Spectrochimica acta.

9. Dr. Amit A. Vernekar was felicitated for the excellence in science research by Deepotsav committee, Sanquelim Goa.
10. Dr. Amit A. Vernekar was invited to join the selection committee of the prestigious "Reaxys Ph.D. Prize" (international).
11. Prof. K Srinivasa Raju secured 1<sup>st</sup> position (Best Oral Presentation) for the Paper titled "Evaluation of Rainfall Runoff Model Structures in R Platform: Case Study", National Symposium on Emerging Environmental Challenges: An Engineering Approach (EEC 2018), jointly organised by CSIR-National Environmental Engineering Research Institute (NEERI), Hyderabad Zonal Centre and Department of Chemical Engineering, BITS Pilani, Hyderabad Campus.
12. Prof. G Geethakumari, Elevated as Senior Member, IEEE, from February, 2018.
13. Dr. Subhrakanta Panda received Best Paper Award in the 6<sup>th</sup> International Conference on Applied Science Engineering and Technology (ICASET-2018) at IFERP, Puducherry during 29<sup>th</sup> – 30<sup>th</sup> December, 2018.
14. The student team of Department of Computer Science & Information Systems received KPIT Best Innovation Award at the Grand Finale of the Smart India Hackathon 2018, organized by ISRO at its Ahmedabad Center in March 2018. The team won a cash award of Rs. 10,000 along with other prizes from ISRO, Govt. of India and the Government of Gujarat.
15. The Computer Science Association has been rated as Best Technical Association for the year 2018.
16. Dr. Bheemeshwar Reddy A received Travel award from the Population Association of America to attend the Annual Meeting of the Population Association of America, April 26 to April 28, 2018, in Denver Colorado, USA.
17. Dr. Durgesh Chandra Pathak received Certificate of excellence in Reviewing in recognition of an outstanding contribution to the 2018 Global Conference on Business and Economics organized by the Association of North America Higher Education International.
18. Dr. Sudatta Banerjee received Certificate of excellence in Reviewing in recognition of an outstanding contribution to the 2018 Global Conference on Business and Economics organized by the Association of North America Higher Education International.
19. Prof. Bivudutta Mishra selected as a member of International Advisory Committee for International Conference on Physical Interpretation of Relativity Theory, Department of Physics, Bauman Moscow State Technical University, to be held at Moscow, 1<sup>st</sup> – 5<sup>th</sup> July, 2019.
20. Dr. Manish Kumar was awarded Open Arms Grants (Geographical Region: Asia & Pacific) sponsored by IMPA – Instituto de Matemática Pura e Aplicada and SBM – Sociedade Brasileira de Matemática, with a generous contribution by IMU – International Mathematical Union to attend the International Congress of Mathematicians (ICM) during 1<sup>st</sup> – 9<sup>th</sup> August, 2018 at Rio de Janeiro, BRAZIL.
21. Dr. T.S.L. Radhika received a certificate of Excellence in Reviewing by the Journal of Advances in Mathematics and Computer Science.
22. Prof. D. Sriram has been awarded with "Most outstanding researcher award 2018", by career360 which he received from Shri. Prakash Javadekar, Hon'ble Union Minister of HRD, Govt. of India.
23. Prof. P. Yogeewari received Outstanding Research Faculty Award for the academic year 2017-18 certified by Careers 360 in the Pharmacology, Toxicology and Pharmaceutics discipline as one of the top 10 knowledge producers in India.
24. Prof. Arti Dhar won 2<sup>nd</sup> prize in poster competition held at 43<sup>rd</sup> annual meeting of Indian Society of Human Genetics CCMB Hyderabad held during 12<sup>th</sup> – 14<sup>th</sup> March, 2018.
25. Dr. Nirmal J., received ICMR International travel grant for attending ARVO 2018 conference in USA.
26. Dr. Sudeep Kumar G. (Post-doctoral fellow) received DST travel award for presentation on "Corneal penetration of functionalized poly (N-isopropylacrylamide) (PNIPAM) polymers" at ARVO Annual Meeting, during 27<sup>th</sup> - 29<sup>th</sup> April, 2018, Hawaii, USA.

27. Mr. Samrun Nessa (Ph. D student) presented paper (Title: GPS-Aided Study of Larval Indices of Aedes aegypti and Analysis of Risk of Dengue Outbreak) in "Interdisciplinary Conference on Healthcare and Technical Research", Manipal and won First Prize under Healthcare category.
28. Mr. Ridahunlang Nongkhaw (Ph. D student) received the best oral presentation award in Indian Eye Research Group (IERG) annual meeting (ARVO, Indian chapter), Hyderabad for the paper "Transporter Targeted Ocular Delivery system to improve ocular bioavailability of drugs".
29. Prof. Aranya Bhuti Bhattacharjee was appointed as "German Academic Research Ambassador" at DAAD Research Ambassador Meet, 22<sup>nd</sup> September 2018, New Delhi.
30. Ms. Aditi Sharma (2015B4A70701H) completed a summer research internship under the DAAD scholarship at TU Kaiserslautern, Germany during 20<sup>th</sup> May – 20<sup>th</sup> July, 2018 under the supervision of Prof. Nicolas Gauger. The topic of work was 'Gradient Enhanced Support Vector Regression for Statistical Learning'.
31. Mr. Aditya Mishra (2016B4AB0532) visited Malaysia during 16<sup>th</sup> – 20<sup>th</sup> August, 2018 for HPAIR (Harvard project for Asian and international relations) Asia conference.

### Dubai Campus

1. On September 1, 2018, the "Convocation 2018" ceremony was held in BITS Pilani, Dubai Campus. The occasion was graced by the Chief Guest, Mr Vipul, Consulate General, Indian Consulate, Dubai. During this prestigious event, the degrees were conferred on 458 Graduates who graduated with Ph.D, Higher Degree and First Degree in the following disciplines of engineering: Chemical Engineering, Electrical and Electronics, Mechanical Engineering, Computer Science, Electronics and Instrumentation Engineering, Electronics and Communication, Biotechnology, Design Engineering, Microelectronics, Software and M.B.A. Awards for academic excellence and all-round achievement were awarded to the deserving students. Mr. Vipul, congratulated the graduates. He expressed his happiness that BITS students have won funds for four innovative projects under Dubai EXPO 2020.

The students are the best brains on new technologies therefore, India with its talent pool and UAE with its wonderful work atmosphere that truly encourages entrepreneurship can build confluence in new technologies such as Artificial Intelligence and blockchain. Dr. Kumar Mangalam Birla, Chancellor, BITS Pilani, in his message stressed that with the gift of the best of education at BITS, graduates will stay focused and relevant in the VUCA world—military acronym for volatile, uncertain, complex and ambiguous which is so typical of our world. He motivated the students to become entrepreneurs which is about dreaming big, being adventurous and show inherent faith in oneself. Prof. Souvik Bhattacharyya, congratulated all on BITS Pilani being conferred the status of Institute of Eminence. He highlighted that BITS Pilani has been ranked in the World University ranking of both THE (Times Higher Education) and QS (Quacquarelli Symonds). Dubai Campus received an award for Strongest Faculty Engagement in EXPO Live University Innovation Program for an impassioned participation from its faculty as academic evaluators. Prof. Dr. R.N. Saha, congratulated both the graduating students and their parents for this remarkable achievement. He emphasized that the academic programme of BITS Pilani has unique feature of linkage with industries through its Practice School Programmes and research collaborations. Members of the Senate, Industry Partners, BITS Alumni, Faculty Members and parents of the graduating students were present during the convocation. Mr.A Karthik Vasudev was awarded Gold Medal, Mr. Varun Vijay Kothari and Ms. Upasana Chakraborty were awarded Silver Medals and Mr. Akshay Niranjana Gidwani was awarded Bronze medal for their excellence in academics. Mr. Jithin Gopakumar and Ms. Upasana Chakraborty were awarded the Director's Medal for All Round Achievement. Mr.A Karthik Vasudev and Mr. Anith Kumar R were awarded the DIAC Excellence Award. The convocation ended with Oath by the graduating students.

2. Team Trepit consists of 5 BPDC mechanical students namely Mohamed Nawaz Muallim, Tarun Krishna Jayachandran, Pranay Addepalli, Harsith Rani Ashokkumar and Adhitya Natrajan from BITS Pilani, Dubai Campus has won a spot at Intelak Aviation & Travel Incubator for their cohort 3 program alongside a seed fund of AED 50,000/-. The event held on January 22, 2018 Led by the Emirates Group, GE, and Dubai

Tourism, Intelak is a hub that will inspire and develop teams to become part of the conversation in travel and aviation industry. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.

3. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize for their Block Chain idea in Start-up weekend organized by Google for Entrepreneurs.Techstars Startup Weekend Dubai x INFINITI Smart Cities was a 54-hour event powered by Google for Entrepreneurs designed to provide superior experiential education for technical and non-technical entrepreneurs. The competition held from January 25-27, 2018. AuoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and the seller. Team AutoChain won 6 months incubation program from RAK Incubators and a one year trading license.
4. Team IFOR consists of BPDC students Mohammed Suhail, Mishika, Ashlyn D'Souza, Rifah Mohamed, Parv Khandelwal, Sarthak Bhooshan, Anudeepsekhar Bolimera, Adithya Pradeep Nair and Saptadeep Debnath showcased an "Autonomous flying drone to clear fog and smog" and won the Judge's Choice award and Cash Prize of AED 10000 in Robotics and Electronics Category in the INNOVATOR 2018 show held at Abu Dhabi from February 1-7, 2018. The team was mentored by Dr. V. Kalaichelvi, Asst.Prof, EEE, BPDC.
5. Team of students namely Abinaya, Krishna, Jithin and Sripriya from Chemical Engineering Department, BPDC have secured the first runner up position in the category "VISION OF THE FUTURE" for their proposal of "BLACK GOLD FROM VEGETABLE WASTE". A prototype compost bin was developed to reduce the housing ecological footprint. The competition "INNOVATIONS FROM WASTE 2017" was organized by Dubai Municipality held on February 8, 2018. This competition was a platform for students of all ages to showcase their innovative ideas to achieve the UAE Sustainability Goals 2021. The team was mentored by Dr. B.G. Prakash Kumar, Faculty, Chemical Engineering, BPDC.
6. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize of \$ 4000 in the IOT + Smart Cities category and Second Prize of \$ 5000 in Big Battles category in Seaside Startup Summit organized by RAK incubation and accelerator held from February 8-12 2018, attracted 500 participants, 300 startup owners and 50 investors. His Highness Sheikh Saud Bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras - Al Khaimah inaugurated the event. AutoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and seller. The team was featured in Ajman FM and Armenian TV. Team AutoChain advised by Dr Sankaram, Mechanical department, BPDC and Dr Santoshkumar, CSE department, BPDC.
7. Saugaat Allabadi, IV year CSE, BPDC along other 3 university students secured 2 position out of 30 teams and won a cash prize of AED 15000 in UAE Hackathon competition, the country's biggest data analysis challenge held on February 11-13 2018 which was conducted by Telecommunications Regulatory Authority.
8. On February 16, 2018, a group of Students from BPDC and Faculty Incharge Dr. Geetha participated in a fund raiser 3 km walk event "Dubai cares, Walk for Education".
9. Rida Khan, IV year CSE, BPDC student won the 1st Runner Up prize in Sci-Tech Student Research Seminar Series for her title "Analysis of Airlines' User Tweets To Understand Consumer Sentiment" held on February 28, 2018 at Amity University, Dubai. Dr. Siddhaling Urolagin, Faculty, CSE, BPDC was the supervisor.
10. Mantra awards are held every year in all the BITS campuses these awards were instituted by CEL, in 2009, to recognize and reward outstanding students who have demonstrated extraordinary leadership potential and/or entrepreneurial initiative. The following students are the Mantra Award Winners from Dubai Campus for 2017-18. RAHUL JAIN won Outstanding Leadership- Male, SHARON ALDRIN won Outstanding Leadership- Female, HARSHAL MITTAL won Social Leadership, GOWTHAM.S won Entrepreneur Of The Year.
11. BITS Pilani, Dubai Campus team of Abirami Iyer and Atul Krishnan from Expressions (The Public Speaking and Literary Club) stood 4th in a pool of 30+ teams in the inter DIAC university debating competition conducted by American University in the Emirates on Thursday, March 1 2018. The debate competition

followed the American Parliamentary format according to which the duo had to present three impromptu speeches of 8 to 10 minutes each.

12. Team PaySync from BPDC consists of students Naman Kamra, Vedant Bajaj, Ritwick D Souza, Saugaat Allabadi and Shaurya Sood were participated in a two-day Hackathon, Hack @The Track 2018 (powered by AngelHack) at Bahrain International Circuit, Bahrain on March 7-8 2018 organized by American Express Middle East, in partnership with Unbound Global and IBM. The Team PaySync from BPDC secured 1st position at the event, bagging the Grand Prize of \$20,000. The participants were from Kuwait, Lebanon, Jordan, Saudi Arabia, Egypt and UAE and were challenged to build a solution that makes digital payments more appealing, accessible and relevant.
13. HULT Prize is the world's biggest students' competition, which records a massive participation of more than 100,000 students from over 150 countries. CIIE at BPDC hosts the campus rounds for HULT Prize and provides the teams a platform to work on their ideas by arranging a workspace for their discussions. It was managed by the HULT Prize Campus Co-ordinator, Rhea Remesh, 3rd year CSE. The HULT Prize challenge this year was to harness the power of Energy to transform the lives of millions around the world. Team Metamorph from BPDC comprising of Jaskanwar Singh (CS), Urvashi Satwani (Chemical), Somil Mathur (CS) and Tushar Agrawal (CS) was placed first at BPDC and represented BITS Pilani Dubai Campus at the regional finals held on March 9-10 2018 at the HULT Business School, Dubai. The team Metamorph were chosen among TOP 6 teams, out of all the teams from countries like US, Canada, UK, India, Pakistan, Nepal, Lebanon, Turkey, Kenya, Nigeria, Beirut (among a few) to compete in the finals. This feat has not been accomplished by any BITS Pilani Campuses in the history of 10 year old HULT Prize. This is indeed an achievement for our campus and BITS Pilani.
14. The students Shaleen Bengani, Anchit Pandey and Mohammed Shoaib from CSE department, BPDC participated in the 8th Gulf Programming Competition held on March 22, 2018 at Zayed University and have secured the first position. The competition was a five hour continuous tough and competitive coding competition. This year there were 42 participants from UAE, Saudi, Kuwait and Oman. BPDC students solved the maximum number of questions (6 out of 10) in the shortest time. The students were awarded a trophy by the Vice President of Zayed University Prof. Reyadh AlMehaideb. They were also given a cash price of AED 2000 each. The team was mentored by Dr Sujala D. Shetty, Asst.Prof, CSE, BPDC.
15. StartAD, the innovation and entrepreneurship platform anchored at New York University, Abu Dhabi, held a Startup Showcase event for the inaugural Beyond the Pitch Program on April 16, 2018. The ceremony marked the completion of a six-week journey, with 17 student teams from more than 11 universities across the UAE convening as finalists at start AD's co-working space to showcase their startup projects. The BPDC team AutoChain comprising of Jaskanwar Singh, Somil Mathur, Jayant Panwar, Tushar Agarwal and Sujith Sizon won \$1,500 for Best Pitch with a goal of creating UAE's first block-chain car platform. Team AutoChain has gathered support from RAK Incubator and the Ministry of Economy, UAE.
16. BPDC Students team MediFile comprising of Rajdeep Ghosh, Sarthak Bhooshan Devjani, Ashwin Mohata, Parv Khandelwal and Anubhav Gupta won the 2nd Prize at Techstars Startup Weekend Dubai - University Edition 2018. It was a 54-hour event powered by Google for Entrepreneurs held from April 19-21,, 2018. The team bagged the 2nd position, winning a 3 month incubation from RAK Incubators, a 2 month platform provide by Unbox Workspace and 2 Academy track tickets. MediFile is decentralised platform where users can easily store and access their health records at a single place aimed at empowering the patients.
17. BECO Capital is one of the most prominent Venture Capitalist firm in UAE with significant investments in major companies including Careem and Property finder. Falcon Hack Challenge held from April 20-21, 2018 organized by BECO, consisted of solving various real time Programming Challenges posted by multiple organizations on Github platform. Within a period of one day, participants had to show the demo of their solutions for any one of the challenges posted on the Github platform. BPDC team comprising of Mihir Prabhudesai, Dev Gupta and Mridul Bhandari were able to solve two of the problems with their prototype based on open ended Chatbot. They received a one-on-one mentorship with the Microsoft Global Head of AI-Dr. Wee Hyong Tok along with incubation and internship opportunities at BECO Capital.

18. BPDC team got shortlisted from the first SOLAR DECATHLON MIDDLE EAST to participate in SECOND SOLAR DECATHLON MIDDLE EAST (SDME) to be held in November 2018 and in 2020. On 30th April 2018, the announcement was made at the Second International Workshop, which Dubai Water and Electricity Authority (DEWA) organised for the 21 teams from 36 universities in 15 countries participating in the first competition.
19. 11 teams from BITS Pilani Dubai Campus Participated and Presented their research work in Finals of 6th Undergraduate Research Competition conducted by Abu Dhabi University held on 30th April 2018. Around 300 papers were shortlisted for Finals from a pool of over 900 papers. 2 teams have secured prestigious 1st and 2nd place in Computer Engineering and IT section. First Prize of AED 5000 won by Sarthak Sethi in Computer Engineering and IT section mentored by Dr. Jagadish Nayak. Second Prize of AED 2500 won by Shaleen Bengani and Mihir Prabhudesai in Computer Engineering and IT section mentored by Dr. Siddhaling Urolagin.
20. AutoChain Team from BITS Pilani Dubai Campus was chosen to be a part of the UAE Ministry of Economy National Program for Supporting Young and Innovative Companies. In the presence of H.E. Eng. Sultan bin Saeed Al Mansoori, UAE Minister of Economy and H.E Sarah bint Yousif Al Amiri, Minister of State for Advanced Sciences, The Ministry of Economy (MoE), in partnership with 15 government and private sector entities, launched the National Program for Supporting Young Innovative Companies. Jaskanwar Singh and Tushar Agarwal from BPDC presented AutoChain to H.E. Eng. Sultan bin Saeed Al Mansoori, UAE Minister of Economy. The team consisting of Sujith Sizon, Somil Mathur, Jaskanwar Singh, Jayant Panwar and Tushar Agarwal received a special commendation from H.E Sarah bint Yousif Al Amiri, Minister of State for Advanced Sciences.
21. 3 students from BITS Pilani Dubai Campus had participated in Annual NYUAD International Hackathon is a three-day programming marathon, during which renowned international computer science professors, founders of successful startups, technology professionals, and venture capitalists come together at NYUAD to lead teams of talented computer science students from all over the world, to create mobile and web applications. The teams develop innovative applications relevant to diverse fields such as health, education, film, music, business, and science for the benefit of social good in the Arab World. This year's edition of the hackathon took place from April 27-29, 2018 at New York University, Abu Dhabi. Alina Zaidi, along with the rest of her team, secured the 3rd place with her project known as MedLughati. MedLughati is a platform that assists refugees and asylum seekers in communicating with healthcare professionals using machine learning and natural language processing. Rewant Verma, along with his team, secured the 1st place with his application known as Dawa, tackling counterfeit drugs in the region using blockchain based pharmaceutical distribution. Eshwaran Venkat, along with his team, participated and presented the project Kuwaikeb Small Planet, a goal based activity game that bridges the physical and digital world to positively influence good habits in children.
22. 3 Students AMEENA MOHAMMED SULAIMAN, GULAMALIWALA JUZAR HATIM and SHAIK AFREEN AARZA from BITS Pilani Dubai Campus won third prize for their project titled " IoT based autonomous watering and manuring for plants " in an event called Show and Tech 2018 conducted by "The Assembly" on May 5, 2018. There were 25 projects from all over UAE displayed in the event. This event is conducted to make future technology to UAE. The event was attended by industry personnel. One important Message the winning students conveyed is that: The Social Impact and Usefulness of the Project is very important than volume or size of the project. A Simple project with high social impact is the best to be considered.
23. BITS Pilani Dubai campus shined in the Inter University Sports cup 2018 held from May 6-9, 2018 organized for the first time by AMITY University Dubai. BITS Girls Throwball, Badminton and Cricket teams secured the first place and Lawn tennis Boys and Cricket boys were the runners up. Team Members: Throwball (Aishwarya-Captain, Rashmitha, Gayathri, Rishika, Prajna, Sharon, Malvika, Shreya, Shifa, Navisha, Meena, Husna); Badminton Girls (Arosha-Captain, Spoorthy, Kshama, Sanjana); Cricket Girls (Sharon-Captain, Shivani-UAE Player, Malvika, Chinnu, Ambika, Gayathri, Prajna, Kshama, Anandi, Nupur, Arshiya, Husna, Meena);Badminton Boys (Akshai-Captain, Gautam, Yash, Renoy, Aashay,); Cricket Boys (Pavan-Captain, Yasasvi, Nipun, Srihari, Kishore, Shivram, Jatin, Anand, Vishvanth, Rishab, Yash, Kartikey); Tennis Boys (Adam-Captain, Rahul, Kevin, Anubhav, Indraneel).

24. BPDC Student Sarthak Sethi has won the James Dyson Award UAE Competition. The James Dyson Award is an international design award that celebrates, encourages and inspires the next generation of design engineers. It's open to current and recent design engineering students, and is run by the James Dyson Foundation, James Dyson's charitable trust, as part of its mission to get young people excited about design engineering. Out of hundreds of entries across the world, project "Smart Biometric Ring" from BITS secured 2nd position at the JDA UAE competition. Award ceremony for the UAE regional level took place at One&Only Royal Mirage, Dubai on September 5, 2018. Teams were also interviewed by Pulse95 radio station, as well as major newspapers. Dyson will now announce top 20 projects on 21st of September which will be selected from the pool of national winners and runners up from each region. At the end on 15th of November, global winner will be announced.
25. On September 4-5, 2018, two teams of students from Computer Science Department, BPDC participated in AI Hackathon biggest in MENA region organized by IQPC is one of the biggest event management company in the world. Team of students namely Mihir Prabhudesai, Juzar Gulamali and Dev Gupta mentored by Mr. Nand Kumar, Faculty, CS, BPDC won the first prize of Internships at Accenture, DEWA & Goodies. Team of students namely Ankita Rane, Shivani Sathe & Anandi Sekhar mentored by Dr. Sujala D. Shetty, Faculty, CS, BPDC won the third prize of Ipad Mini & Goodies from Dubai Municipality
26. BPDC Students Anchit Pandey (4th Year CS), Vrushali Patil (3rd Year ECE), Sultan Morbiwala (4th Year Mechanical), Satyarth Vaidya (4th Year CS) and Sejal Chopra (4th Year CS) has won the third Prize and Cash award of INR 2000 for their Project titled "Drone-based Smart Oil Spill Reduction and Containment" in the CSIR-CEERI's Technology Innovation Event 2018 held on September 28, 2018 at CSIR CEERI Pilani, India.
27. BPDC team AERONYX comprising Akansha Das and Ashlyn D'Souza won the Second Position and team ZUV comprising Raagashree Ravi, Komal Harish, Simran Narang, Aatrayee Bhattacharjee, Hiloni Mehta and Sabiha Shaik won the Third Position in the Techstars Global Startup Weekend Dubai, Women Edition 2018, held at DTEC Silicon Oasis, during November 15-17 2018. Team AERONYX received 3 months of co-learning program from QLC in their first ever cohort and Team ZUV wins Squad Goals Smash Room Experience and extended support as well as mentorship from the Coaches and Facilitators of Startup Weekend Dubai Women Edition 2018.
28. BITS Dubai Toastmasters Club Team emerged as Champions in the Division-F Inter Club Debate Contest, a division level toastmastersdebate contest which was conducted on November 16, 2018 in American University in the Emirates, UAE. BPDC team won among the 18 teams participated in the contest which are experienced teams than BPDC.
29. BPDC team NaviFly team (Aeronyx) comprising Yashodhan Naik and Shivank Gupta, secured 2nd place in Techstars Women's Start-Up Weekend, 2018, the first women's startup in the Middle East held on November 20, 2018. The team have been selected amongst the top 20 teams in the world to Pitch at Propeller Shannon, Ireland. It is an aviation accelerator which has world re-known partners like Boeing, Datalex, IAA & many others. On November 20 2018, the NaviFly representatives Yashodhan Naik and Shivank Gupta leave to Ireland to showcase their disruptive innovation. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
30. BPDC Team comprising Mihir Prabhudesai (CS) and Sarthak Sethi (EEE) has won the First Prize amongst 70+ participating teams all across UAE for their Low-Computation Algorithmic Solution for the task of Speaker Recognition in the 2 day coding event Google Developer Group, Codathon for Developers of all ages across UAE was held on November 23-24, 2018. The event comprised of solving Algorithmic Challenges for pre-decided tasks ranging from Voice Biometrics to Quantum Cryptography. They were also awarded 25,000 AED Cash Prize by Emirates NBD for their win.
31. BPDC team along with Romanian University (Team EFdeN) reached the final stage of first SOLAR DECATHLON MIDDLE EAST held in Dubai and Secured 4th Place in the world. Students Actively Involved were Jerin Jacob (Dubai Team Lead), Mitesh Aswani, Mohammed Shamroukh, Shubhankan Mukherjee, Nikitha Rajendran, Kartik Math, Pranay Addepalli, Neeraja Narayanswamy, Suyash Agarwal, Smrithi Nagesh, Avani Mishra & Karthika Kumar. BPDC faculty Dr. Gomathi Bhavani, Dr, Shashank Khurana & Dr. Vincent Shantha Kumar were the mentors. The team won numerous awards throughout the competition,

and placed well in every contest: 1st in Communication, 2nd in Engineering and Construction, 2nd in Comfort Conditions, 3rd in Sustainability, 4th in Energy Efficiency, 3rd for innovations in energy efficiency (sub-contest), 4th in Sustainable Transportation, 4th in House Functioning, 6th in Architecture, 2nd in the People Choice Awards, with 8923 votes (special category, no points), Placed 4th overall in the world. Was in 1st place for nearly 90% of the competition period. Won 879.47 points overall, out of a total possible 1000.

32. BITS Pilani Dubai Campus students' bagged top honours of Overall Championship of BITS Sports Festival (BSF) 2018 held from November 25-29, 2018. The Chief Guest of Award Ceremony was an International cricketing legend, Mr. Virender Sehwag from India graced the occasion and distributed the prizes to the winners. Prof. R N Saha, Director, BPDC and Dr. Priti, Dean, SWD congratulated the winners of BSF 2018. Dr. M. Rafiuddin, Senior Manager, Sports Division, BPDC organized the BSF 2018 with excellence
33. BPDC Team Cartel which included me Sujith Sizon and Sachin Samuel, represented BITS Pilani Dubai Campus at the edu Capture the Flag competition as a part of Hack in The Box Security Conference Series Middle East chapter and won 2nd Prize. The competition was a Jeopardy Style Capture the Flag Competition for edu hackers and ninjas held during November 27-28, 2018 at Grand Hyatt, Dubai. The competition included multiple categories of challenges, including: reverse engineering, pwnable, web security, AI & blockchain, crypto, MISC (forensic, network analysis), etc. The CTF was held and hosted alongside the .pro CTF which was organised by the XCTF League from China who are known to host some of the hardest CTF competitions in the world.
34. Students Sarthak Sethi (2nd Year) & Karan Gupta (2nd Year) from EEE department were represented BPDC with their project "Smart Energy Harvesting & On-Lane Digital Signage Display Roadways" in the Gulf Traffic 2018 a three-day conference, two days of free seminars, and a prestigious awards show held from December 4-6, 2018 at Dubai World Trade Centre
35. Two BPDC teams are to each receive grants of up to AED 50,000, plus guidance and exposure, to advance their ideas after participating in the second cycle of the University Innovation Programme (UIP), which was conducted by Expo Live with the support of the UAE Ministry of Higher Education and Scientific Research. On successful completion of the project, the BPDC teams will receive guidance from Expo Live, as well as their universities, to advance research and development, create a business model grow their team and potentially partner with other entities. Grantees may even have the chance to showcase their innovations to millions of people at Expo 2020 Dubai to be held from October 20, 2020 to April 10, 2021, with expectation to welcome 25 million visitors. Expo Live is a USD 100 million innovation and partnership programme launched by Expo 2020 Dubai to make a lasting social impact by funding, accelerating and promoting creative solutions that improve lives or preserve the planet, or both. The BPDC team Glass Microsphere-filled Polymer Composite selected in the theme "Mobility" for the project "for Glass microsphere-filled polymer composite suitable for spacecraft" was awarded the grant. Another BPDC team Power Steppers in the theme "Sustainability" for the "Charge mobile devices on the go using energy created by your body" was awarded the grant.
36. Team IFOR won the Robotics and Electronics category at Innovator Show 2018 in Abu Dhabi. Their proposal was a Fog prevention system using an autonomous VTOL drone. After winning the Innovator we were featured in Gulf News and various news and media entities visited us and our lab at Bits Pilani. IFOR covered in Gulf News: <http://m.gulfnews.com/news/uae/society/uae-students-build-drone%20that-clers-fog-1.2167010>. The participants are: Suhail (2016A3PS0172U) EEE; Mishika (2016A7PS0261U) CS; Ashlyn D'Souza(2016A7PS0003U) CS; Rifah Mohamed(2016A7PS211U) CS; Parv Khandelwal (2015A7PS0265U) CS; Sarthak Bhooshan (2015A7PS0323U) CS; Anudeepsekhar Bolimera (2014AAPS0115U) ECE; Adithya Pradeep Nair (2016A4PS0254U) Mechanical; Saptadeep Debnath (2014AATS0061U) ECE. Dr Kalaichelvi is the faculty mentor.
37. BPDC, in collaboration with three renowned Romanian universities showcased their design of fully solar powered energy efficient house at the Solar Decathlon Middle East 2018 at the Mohammed Bin Rashid Al Maktoum solar park from November 14 – 29, 2018. The team won an impressive fourth place from among the international teams participated, notably first in Communication context, second in Engineering and



Construction, second in Comfort Conditions, third in Sustainability and fourth in Energy Efficiency. Dr Gomathi Bhavani was one of the faculty mentors.

38. Team Trepit consists of 5 BPDC mechanical students namely Mohamed Nawaz Muallim, Tarun Krishna Jayachandran, Pranay Addepalli, Harsith Rani Ashokkumar and Adhitya Natrajan from BITS Pilani, Dubai Campus has won a spot at Intelak Aviation & Travel Incubator for their cohort 3 program alongside a seed fund of AED 50,000/-. The event held on January 22, 2018 Led by the Emirates Group, GE, and Dubai Tourism, Intelak is a hub that will inspire and develop teams to become part of the conversation in travel and aviation industry. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
39. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize of \$ 4000 in the IOT + Smart Cities category and Second Prize of \$ 5000 in Big Battles category in Seaside Startup Summit organized by RAK incubation and accelerator held from February 8-12, 2018, attracted 500 participants, 300 startup owners and 50 investors. His Highness Sheikh Saud Bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras - Al Khaimah inaugurated the event. AutoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and seller. The team was featured in Ajman FM and Armenian TV. Team AutoChain advised by Dr Sankaram, Mechanical department, BPDC and Dr Santoshkumar, CSE department, BPDC.
40. BPDC team got shortlisted from the first SOLAR DECATHLON MIDDLE EAST to participate in SECOND SOLAR DECATHLON MIDDLE EAST (SDME) to be held in November 2018 and in 2020. On April 30, 2018, the announcement was made at the Second International Workshop, which Dubai Water and Electricity Authority (DEWA) organised for the 21 teams from 36 universities in 15 countries participating in the first competition. The team is mentored by Dr. Vincent Shantha kumar, Dr. Shashank Khurana and Dr. Gomathi Bhavani
41. BPDC Students Anchit Pandey (4th Year CS), Vrushali Patil (3rd Year ECE), Sultan Morbiwala (4th Year Mechanical), Satyarth Vaidya (4th Year CS) and Sejal Chopra (4th Year CS) has won the third Prize and Cash award of INR 2000 for their Project titled "Drone-based Smart Oil Spill Reduction and Containment" in the CSIR-CEERI's Technology Innovation Event 2018 held on September 28, 2018 at CSIR CEERI Pilani, India.
42. NaviFly, a start-up led by me, Yashodhan Naik, a student of BITS Pilani Dubai Campus, have been selected amongst the top 20 teams in the world to Pitch at Propeller Shannon, Ireland. It is an aviation accelerator which has world re-known partners like Boeing, Datalex, IAA & many others. On 20th November 2018, the NaviFly representatives Yashodhan Naik and Shivank Gupta leave to Ireland to showcase their disruptive innovation. Recently, the women entrepreneurs from the NaviFly team (Aeronyx) recently secured 2nd place in Techstars Women's Start-Up Weekend, 2018, the first women's startup in the Middle East. The team is mentored by Dr. Vincent Shantha Kumar
43. BPDC along with Romanian University (Team EFdeN) participated in the finals of SDME 2018. Won numerous awards throughout the competition, and placed well in nearly every contest:
  - 1st in Communication- 2nd in Engineering and Construction
  - 2nd in Comfort Conditions o 3rd in Sustainability
  - 4th in Energy Efficiency - also placed 3rd for innovations in energy efficiency (sub-contest)
  - 4th in Sustainable Transportation
  - 4th in House Functioning
  - 6th in Architecture
  - 2nd in the People Choice Awards, with 8923 votes (special category, no points)
  - Placed 4th overall in the world. Was in 1st place for nearly 90% of the competition period o Won 879.47 points overall, out of a total possible 1000.

The team is mentored by Dr. Vincent Shantha kumar, Dr. Shashank Khurana and Dr. Gomathi Bhavani

44. Team "Glass Microspheres Filled Polymer Composites" participated in Expo 2020 University Innovation Programme (UIP) and secured funding of AED 50,000. More than 500 student groups from 57 universities across the UAE submitted applications as part of the UIP's second cycle out of which only 35 reached to the second round. The final stage of evaluation took place on November 24, 2018 at Expo 2020 main office in Dubai where our students pitched the idea in 5 minutes and impressed the judges to secure a place in the top teams to be funded. The students worked with Dr. Priyank, Assistant Professor, Mechanical Engineering, BPDC.
45. Mantra awards February 2018, Harshal Mittal for Social Leadership, Gowtham S. for Entrepreneur of the year, Mihit Prabhudesai Innovator of the year.
46. Jaskanwar Singh, Sujith Sizon, Tushar Agarwal, Jayant Panwar and Somil Mathur, won first position in 1st position in the IOT + Smart Cities category (USD 4000) and + 2nd position in Big Battles (USD 5000) in Autochain Seaside Startup Submitm held during February 8-12, 2018.
47. Rida Khan was first runner-up for her paper in Sci-Tech held in Amity University on February 28, 2018
48. Naman Kamra, Vedant Bajaj, Ritwick D Souza, Saugaat Allabadi, and Shaurya Sood won USD 20,000 in the Hack @The Track 2018, AngelHack conducted during March 7-8, 2018.
49. Jaskanwar Singh (CS), Urvashi Satwani (Chemical), Somil Mathur (CS) and Tushar Agrawal (CS) won the HULT prize in the competition held during March 9-10, 2018.
50. Shaleen Bengani (III CS), Anchit Pandey (III CS), Mohammed Shoaib (II CS) participated in the 8th Gulf Programming Competition held on March 22, 2018 at Zayed University and have secured the first position, with Faculty Coach Dr Sujala D. Shetty. The GPC is a five hour continuous tough and competitive coding competition. This year there were 42 participants from UAE, Saudi, Kuwait and Oman. The students solved the maximum number of questions (6 out of 10) in the shortest time. The students were awarded a trophy by the Vice Chancellor of Zayed University. They were also given a cash price of AED 2000 each.
51. Jaskanwar Singh, Somil Mathur, Jayant Panwar, Tushar Agarwal and Sujith Sizon, won USD 1500 for the best pitch at Autochain at STARTAD, NYU, Abu Dhabi, held on April 16, 2018 at NYU Abu Dhabi.
52. Mihir Prabhudesai, Dev Gupta and Mridul Bhandari, won the Falcon Hack Challenge held during April 20-21, 2018.
53. Two students participated in 6th Undergraduate Research Competition held in Abu Dhabi University, Abu Dhabi on April 30, 2018. The team won the 2nd prize. Winners are Mihir Prabhudesai (III CS) Shaleen Bengani (III CS) with Faculty Advisor: Dr. Siddhaling Urolagin, under the Patronage of H.E. Hussain Ibrahim Al Hammadi, Minister of Education, Abu Dhabi University is organizing the Seventh Undergraduate Research Competition. This competition aims at encouraging universities to promote scientific research among undergraduate students and to make it an integral part of university education. Over 250 research papers presented in 14 parallel tracks submitted by 33 major universities in the UAE. They were given cash prize of AED 2500 for the team.
54. Shaik Afreen Aarza won 3rd prize at Show and Tech 2018 held on May 5, 2018
55. IQPC is one of the biggest event management company in the world. They had recently organized MEN regions biggest AI hackathon. The hack was a 3-day event consisting of 30+ Teams participating in the preliminary round. The event took place from 3rd to 5th September 2018 in Park Hyatt, Dubai and was attended by visionaries from Companies like Microsoft, Accenture, Etisalat, PWC, and Infosys. Two teams from BITS secured prestigious 1st and 3rd place in the finals. Following are their names.1) First Prize Students: Mihir Prabhudesai, Juzar Gulamali and Dev Gupta, Mentor: Mr. Nand Kumar Prize: Internships at Accenture, DEWA & Goodies 2) Third Prize Students: Ankita Rane, Shivani Sathe & Anandi Sekhar Mentor: Dr. Sujala D. Shetty Prize: Ipad Mini & Goodies from Dubai Municipality
56. Mihir Prabhudesai (CS) and Sarthak Sethi (EEE) won the first prize at Google Developer Group which held a Codathon for Developers of all ages across UAE. The event comprised of solving Algorithmic Challenges for pre-decided tasks ranging from Voice Biometrics to Quantum Cryptography. It was a 2 day coding

event in which the team managed to build a Low-Computation Algorithmic Solution for the task of Speaker Recognition. The team was selected amongst 70+ participating teams all across UAE. They were also awarded 25,000 AED Cash Prize by Emirates NBD for their win, during November 23-24, 2018.

57. Three of our students Sameeksha Amin (3<sup>rd</sup> CS), Saifali (2<sup>nd</sup> CS), Niharika Senthil Kumar(2<sup>nd</sup> BIOT) stood first in the Inter Club Debate Contest, a division level toastmasters debate contest which was conducted on November 16, 2018 in American University in the Emirates. There were a total of 18 teams participating, including five star clubs such as ICAT Toastmasters Club, Emirates Toastmasters Club and Friends of Yoga Toastmasters Club. Among the participants were also teams from advanced clubs like Dubai Advanced Toastmasters Club and DIC Advanced Toastmasters Club. All contestants were not only much older than our students but also more experienced toastmasters.
58. Dr. Bharat B. Gulyani was invited to deliver a keynote address "Data Mining Techniques: Applications in Chemical Engineering " at 3<sup>rd</sup> Student Research Colloquium on "Advances in Engineering & IT" on 11<sup>th</sup>& 12<sup>th</sup> April 11-12, 2018, at the Manipal Academy of Higher Education, Dubai.
59. A team of four chemical engineering students (Abinaya, Krishna, Jithin and Sripriya), mentored by Dr. B.G. Prakash Kumar have secured the first runner up position in the category "Vision of the Future" for their proposal of "Black Gold from Vegetable Waste" conducted by the Dubai Municipality, February 8, 2018. A prototype compost bin was developed to reduce our housing ecological footprint.
60. One ongoing project: interdisciplinary project involving four students including one Chemical Engineering student Ms. Anketha Kanna has won the ExpoLive University Innovation Programme (Prize of AED 25,000), Mentor: Dr. Shashank Khurana (Faculty, Mechanical Engineering).
61. Urvashi Satwani is appointed as AIChE Middle East Liaison and later handed the position of Chair of the AIChE Sister Chapter Subcommittee.
62. Four teams were accepted into the final round of the Undergraduate Research Competition (URC), Abu Dhabi.
63. Urvashi Satwani was the member of a team that was Finalists at the Dubai Regionals of the HULT Prize 2018, where the theme was "Harnessing the Power of Energy".
64. Kartik Math was a prominent member of the BITS Solar Decathlon Team "Efdn". They were required to construct a house that uses solar energy as the only energy source and are equipped with all the technologies that permit maximum efficiency. The team placed First in Communications, Second in Engineering and Construction, Second in Comfort Conditions and Third in Sustainability. BPDC along with Romanian University (Team EFdeN) performed very well and secured Overall 4<sup>th</sup> Place in the world.
65. Graduated Students of batch 2014-2018 were accepted into prestigious institutions around the globe such as TU Delft – Netherlands, University of Melbourne – Australia, University of New South Wales, Sydney – Australia, University of Leeds – England, Durham University – UK, Norwegian University of Science and Technology – Norway, University of Waterloo – Canada, University of Toronto – Canada, University of Alberta – Canada and CAE Oxford Aviation Academy National Flying Training Institute.
66. Graduates of the class of 2014-2018 were placed in companies by the likes of Monaco Engineering Solutions UAE, Kemipex FZE-UAE, Hydro Middle East – UAE, Fetchr-UAE, Petrofac-Qatar; Ayzuas Group-UAE, Hindustan Petroleum Corporation Limited – India, Captain and Company – UAE and Sika UAE LLC – UAE.
67. Appointed a member of International Advisory Committee of 1st Edition of International Conference on Social Responsibility of Educational Institutions in Developing Countries (ICSEDC – 2018) held during August 24-25, 2018 organized by Ramakrishna Mission Vidyalaya, Coimbatore, Tamil Nadu, India.

## A.2 ADMINISTRATIVE APPOINTMENTS

The following administrative appointments were made during the year:

A. The following have been appointed as Deans (Institute-wide) as per details given below:

S.No.	Name	Administrative Function	Period
Pilani Campus			
1.	Prof. Ajit Pratap Singh	Academic – Undergraduate Studies (AUGS)	17/05/2018 to 16/05/2021
2.	Prof. S Gurunarayanan	Practice School (PS)	17/05/2018 to 16/05/2021
3.	Prof. Shan Balasubramaniam	Work Integrated Learning Programmes (WILP)	17/05/2018 to 16/05/2021
K.K. Birla Goa Campus			
1.	Prof. Sunil Bhand	Dean, Sponsored Research & Consulting	17-05-2018 to 16-05-2021
2.	Prof. Srinivas Krishnaswamy	Dean, Academic - Graduate Studies & Research	17-05-2018 to 16-05-2021
Hyderabad Campus			
1.	Prof. Suman Kapur	International Programmes and Collaborations	17/05/2018 to 31/12/2018
2.	Prof. Sourj Banerjee	Faculty Affairs (FAD)	17-05-2018 to 16-05-2021

B. The following have been appointed as Deans (Campus Specific) as per details given below:

S.No.	Name	Administrative Function	Period
Pilani Campus			
1.	Prof. Sanjay Kumar Verma	Administration	17/05/2018 to 16/05/2021
Hyderabad Campus			
1.	Prof. Niranjan Swain	Administration	17/05/2018 to 16/05/2021
K.K. Birla Goa Campus			
1.	Prof. D M Kulkarni	Administration	17/05/2018 to 16/05/2021

C. The following have been appointed as Associate Deans as per details given below:

S.No.	Name	Administrative Function	Period
1.	Prof. Suresh Gupta	Academic – Undergraduate Studies	16/08/2018 to 15/08/2021
2.	Prof. Jitendra Panwar	Academic – Graduate Studies & Research	16/08/2018 to 15/08/2021
3.	Prof. Anshuman Dalvi	Faculty Affairs	16/08/2018 to 15/08/2021
4.	Prof. Navneet Gupta	Sponsored Research and Consultancy	16/08/2018 to 15/08/2021
5.	Prof. Dalip Kumar	International Programmes & Collaborations	16/08/2018 to 15/08/2021
6.	Prof. P. Srinivasan	Work Integrated Learning Programmes	16/08/2018 to 15/08/2021
7.	Prof. H.D. Mathur	Work Integrated Learning Programmes	16/08/2018 to 15/08/2021
8.	Prof. Anil B. Gaikwad	Practice School	16/08/2018 to 15/08/2021
9.	Prof. Srikanta Routroy	Student Welfare	16/08/2018 to 15/08/2021
10.	Dr. Rajeev Sakhuja	Alumni Relations	16/08/2018 to 15/08/2021
11.	Prof. G. Venkiteswaran	WILP	16/08/2018 to 15/08/2021
12.	Prof. P.B. Venkataraman	WILP	16/08/2018 to 15/08/2021
13.	Prof. Annapoorna Gopal	Practice School	16/08/2018 to 15/08/2021

S.No.	Name	Administrative Function	Period
K.K. Birla Goa Campus			
1.	Prof. Bharat M. Deshpande	Associate Dean, Academic Graduate Studies and Research (AGSR)	16-08-2018 to 15-08-2021
2.	Prof. Neena Goveas	Associate Dean, Academic Under Graduate Studies (AUGS)	16-08-2018 to 15-08-2021
3.	Prof. Sutapa Roy Ramanan	Associate Dean, Faculty Affair Division (FAD)	14-09-2018 to 15-07-2020
4.	Prof. Narendra Nath Ghosh	Associate Dean, International Programs & Collaboration (IPC)	14-09-2018 to 15-07-2020
5.	Prof. Meenal Kowshik	Associate Dean, Sponsored Research & Consulting (SRCD)	12-04-2018 to 11-04-2021
6.	Prof. Anupama Karuppiah	Associate Dean, Practice School (PS)	14-09-2018 to 15-07-2020
7.	Prof. Raghunath Anand Ratabole	Associate Dean, Work Integrated & Learning Programs, (WILP)	14-09-2018 to 15-07-2020
8.	Prof. Ramesha C. K.	Associate Dean, Student Welfare Division (SWD)	14-09-2018 to 15-07-2020
9.	Prof. Veeky Baths	Associate Dean, Alumuni Relations	14-09-2018 to 15-07-2020
Hyderabad Campus			
1	Prof. Vidya Rajesh	Faculty Affairs (FAD)	13-07-2018 to 12-07-2021
2	Prof. Anupam Bhattacharya	Sponsored Research and Consulting (SRCD)	13-07-2018 to 12-07-2021
3	Prof. Bivudutta Mishra	International Programmes & Collaboration (IPCD)	13-07-2018 to 12-07-2021
4	Prof. P. Sankar Ganesh	Practice School (PSD)	13-07-2018 to 12-07-2021
5	Prof. Punna Rao Ravi	Work Integrated Learning Programmes (WILP)	13-07-2018 to 12-07-2021
6	Prof. A Vasan	Academic - Undergraduate Studies (AUGSD)	16-08-2018 to 15-08-2021
7	Prof. Venkata Vamsi Krishna Venuganti	Academic - Graduate Studies and Research (AGSRD)	16-08-2018 to 15-08-2021
8	Prof. Sandip Shridharrao Deshmukh	Student Welfare (SWD)	13-07-2018 to 12-07-2021
9	Prof. Meenakshi Viswanathan	Alumni Relations	04-08-2018 12-07-2021
Dubai Campus			
1.	Prof. K. Kumar	Academic - Undergraduate Studies	12/09/2018 to 11/09/2021
2.	Prof. R. Karthikeyan	Academic - Graduate Studies & Research	12/09/2018 to 11/09/2021
3.	Prof. B. Muralidharan	Practice School Division	12/09/2018 till further orders
4.	Prof. Priti Bajpai	Student Welfare Division	12/09/2018 till further orders

D. The following has been appointed as Unit Chief as per details given below:

S.No.	Name	Administrative Function	Period
Pilani Campus			
1.	Prof. N V Muralidhar Rao	Centralized Purchases	01/09/2018 to 31/08/2020
2.	Prof. Kuldip Singh Sangwan	Placement Unit & Workshop	01/09/2018 to 31/08/2020

H. The following have been appointed as Heads of Departments as per details given below:

S.No.	Name	Department	Period
Pilani Campus			
1.	Prof. Prabhat Nath Jha	Biological Sciences	01/09/2018 to 31/08/2020
2.	Prof. Hare Krishna Mohanta	Chemical Engineering	01/09/2018 to 31/08/2020
3.	Prof. Saumi Ray	Chemistry	01/09/2018 to 31/08/2020
4.	Prof. Anshuman	Civil Engineering	01/09/2018 to 31/08/2020
5.	Prof. Poonam Goyal	Computer Science and Information Systems	01/09/2018 to 31/08/2020
6.	Prof. Arun Kumar Giri	Economics and Finance	01/09/2018 to 31/08/2020
7.	Prof. V K Chaubey	Electrical & Electronics Engineering and Instrumentation	01/09/2018 to 31/08/2020
8.	Prof. S K Choudhary	Humanities and Social Sciences	01/09/2018 to 31/08/2020
9.	Prof. Jyoti	Management	01/09/2018 to 31/08/2020
10.	Prof. B K Sharma	Mathematics	01/09/2018 to 31/08/2020
11.	Prof. Mani Sankar Dasgupta	Mechanical Engineering	01/09/2018 to 31/08/2020
12.	Dr. Paul Atish Tulshiram	Pharmacy	01/09/2018 to 31/08/2020
13.	Prof. Raj Kumar Gupta	Physics	01/09/2018 to 31/08/2020
Hyderabad Campus			
1	Prof. Srikanta Dinda	Chemical Engineering	01-10-2018 to 30-09-2020
2	Prof. Sridhar Raju	Civil Engineering	01-10-2018 to 30-09-2020
3	Prof. Sanket Goel	EEE	01-10-2018 to 30-09-2020
4	Prof. Amit Kumar Gupta	Mechanical Engineering	01-10-2018 to 30-09-2020
5	Prof. D Sriram	Pharmacy	01-10-2018 to 30-09-2020
6	Prof. Tathagata Ray	C S & I S	01-10-2018 to 30-09-2020
7	Prof. Naga Mohan Kommu	Biological Sciences	01-10-2018 to 30-09-2020
8	Prof. Manab Chakravarty	Chemistry	01-10-2018 to 30-09-2020
9	Prof. Sunny Jose Gosman	Humanities & Social Sciences	01-10-2018 to 30-09-2020
10	Dr. Sudatta Banerjee	Economics & Finance	01-10-2018 to 30-09-2020
11	Prof. Dipak Kumar Satpathi	Mathematics	01-10-2018 to 30-09-2020
12	Prof. P K Thiruvikraman	Physics	01-10-2018 to 30-09-2020
(c) Dubai Campus			
1.	Dr. Nishant Harishbhai Pandya	Chemical	1/06/2018 to 31/05/2020
2.	Dr. Ramanujam Karthikeyan (Officiating)	Civil	1/06/2018 to till further orders
3.	Dr. Ramachandran Anand Kumar	Electrical and Electronics	1/06/2018 to 31/05/2020
4.	Dr. Ramanujam Karthikeyan	Mechanical	1/06/2018 to 31/05/2020
5.	Dr. Sujala Deepak Shetty	Computer Science	1/06/2018 to 31/05/2020
6.	Dr. Dawood Jalaluddin Shariff	Biotechnology	1/06/2018 to 31/05/2020
7.	Dr. Vijaya Ilango	General Sciences	1/06/2018 to 31/05/2020
8.	Dr. Shazi Shah Jabeen	Humanities and Social Sciences	1/06/2018 to 31/05/2020

I. The following have been appointed as Faculty-in-charges as per details given below:

S.No.	Name & Campus	Name of Centre	Period
<b>Pilani Campus</b>			
1.	Prof. Vishal Saxena	Institutional Knowledge Analysis Cell (IKA Cell) - Institute Wide	16/07/2018 to 15/07/2019
2.	Dr. S U Belgamwar	First Degree Admission Tests	01/09/2018 to 31/08/2020
3.	Prof. Shamik Chakraborty	Higher Degree and Ph.D. Admission Tests	01/09/2018 to 31/08/2020
4.	Prof. DipenduBhunia	Estate Management	01/09/2018 to 31/08/2020
5.	Prof. Yashvardhan Sharma	Information Processing Centre, Software Development & Educational Technology	01/09/2018 to 31/08/2020
6.	Prof. Karunesh Kumar Gupta	Instrumentation Unit, Reprography	01/09/2018 to 31/08/2020
7.	Prof. Sangeeta Sharma	Publications and Media Relations	01/09/2018 to 31/08/2020
8.	Prof. Virendra Singh Nirban	Public Relations (including VFAST, Transport & Cafeteria)	01/09/2018 to 31/08/2020
9.	Dr. Satyendra Kumar Sharma	Entrepreneurial Leadership	01/09/2018 to 31/08/2020
10.	Dr. Virendra Singh Shekhawat	Educational Technology Support	01/09/2018 to 31/08/2020
11.	Prof. Devika	Infant Care Centre and Institute Functions	01/09/2018 to 31/08/2020
12.	Dr. Kaushar Vaidya	Teaching Learning Center	01/09/2018 to 31/08/2020
13.	Dr. Ashish Tiwari	Societal Development (NSS and Nirmaan)	01/09/2018 to 31/08/2020
14.	Prof. UdayanChanda	Timetable	01/09/2018 to 31/08/2020
15.	Dr. Jitendra Singh Rathore	Registration & Counseling	01/09/2018 to 31/08/2020
<b>K.K. Birla Goa Campus</b>			
1.	Prof. Vinayak Shashikant Naik	Computer Centre	01-12-2018 to 13-09-2020
2.	Prof. Radhika Vathsan	Community Welfare	14-09-2018 to 13-09-2020
3.	Dr. Rajorshi Sen Gupta	Centre for Innovation, Incubation and Entrepreneurship (CIIE)	14-09-2018 to 13-09-2020
4.	Prof. Gaurav Dar	Teaching Learning Centre	14-09-2018 to 13-09-2020
5.	Prof. Ram Shanker Patel	Central Sophisticated Instrumentation Facility	14-09-2018 to 13-09-2020
6.	Prof. P Bhavna	Instruction	01-09-2018 to 31-08-2020
7.	Prof. Amrita Chatterjee	Registration	01-09-2018 to 31-08-2020
8.	Prof. Chandradew Sharma	Academic Research	01-09-2018 to 31-08-2020
9.	Dr. Vikas Vinayak Chaudhari	Admissions	01-09-2018 to 31-08-2020
10.	Dr. Malabika Biswas	Academic Counselling & Monitoring	01-09-2018 to 31-08-2020
<b>Hyderabad Campus</b>			
1.	Prof. Aruna Malapati	Centre for Innovation, Incubation and Entrepreneurship (CIIE)	04-08-2018 to 03-08-2020
2.	Prof. Alivelu Manga Parimi	Placements	04-08-2018 to 03-08-2020
3.	Dr. Parameshwaran R	Placements	04-08-2018 to 03-08-2020
4.	Dr. Swati Alok	Community Welfare	04/08/2018 to 08/11/2018
5.	Dr. Arti Dhar	Community Welfare	09-11-2018 to 03-08-2020
6.	Dr. Rahul Nigam	Teaching Learning Centre (TLC)	04-08-2018 to 03-08-2020
7.	Prof. Ramesh Babu A	Centralized Purchase	04-08-2018 to 03-08-2020
8.	Prof. R Gururaj	Computer Centre	04-08-2018 to 03-08-2020
9.	Prof. Amit Nag	Admissions	21-08-2018 to 20-08-2020
10.	Prof. Pradyumn Kumar Sahoo	Time Table & Exams	21-08-2018 to 20-08-2020
<b>Dubai Campus</b>			
1.	Dr. Trupti Swarup Gokhale	Alumni Affairs	12/09/2018 till further orders

- J. Mr. Ernest Samuel Ratnakumar J has been appointed as Registrar of the Institute with effect from 16/08/2018.
- K. Prof. Navin Singh, Pilani Campus is appointed as Chief Warden with effect from 01/09/2018 for a period of two years.
- L. HR Section has been created in Pilani Campus with effect from 12/09/2018 and headed by Mr. Arvind Soundarajan.
- M. Prof Vincent Shantha Kumar, Dubai Campus is nominated by Senate as Research Board Member with effect from 10/12/2018.

The names and designations of senior officers of different campuses are given in Annexure (Pilani Campus, '**Annexure B1-14**'; K.K. Birla Goa Campus, '**Annexure B2 -1**'; Hyderabad Campus, '**Annexure B3 -1**' and Dubai Campus, '**Annexure B4 -1**').

### A.3 ADMINISTRATIVE BODIES

#### General Body

The General Body of the Institute held its 57<sup>th</sup> Meeting on 16<sup>th</sup> March, 2018 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute. Details are given in '**Annexure A-1**'.

#### Board of Governors

The Board of Governors of the Institute held its 71<sup>st</sup> Meeting on 16<sup>th</sup> March, 2018 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute. Details are given in '**Annexure A-2**'.

#### Finance Committee

The Finance Committee of the Institute held its 57<sup>th</sup> Meeting on 16<sup>th</sup> March, 2018 under the Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute.

#### Senate

The Senate of the Institute met four times during the year. It held its 183<sup>rd</sup>, 184<sup>th</sup>, 185<sup>th</sup> and 186<sup>th</sup> meetings on 3<sup>rd</sup> March, 2018, 4<sup>th</sup> July, 2018, 18<sup>th</sup> July, 2018 and 13<sup>th</sup> December, 2018 respectively.

#### Examination Committee

The Examination Committee met 5 times during the year for analysis and declaration of grades; approval of Ph.D. thesis reports; approval of award of degrees/medals for eligible students; deciding cases of scrutiny, unfair means and related matters.

### A.4 ADMISSIONS

#### BITSAT 2018

A total of 170166 candidates, including 45259 girls, from all over the country applied for BITSAT 2018 test. The candidates had the option of choosing their own centers, date and time for the test, which was conducted during 16<sup>th</sup> May to 27<sup>th</sup> May, 2018.

In addition to this 245 applications are also received for admissions under International students' scheme.

#### BITSAT 2018 Highlights are

- Computer-based objective type online test, conducted from 16<sup>th</sup> May to 27<sup>th</sup> May, 2018 in 58 centers across India and in Dubai.
- 141262 candidates including 35405 girls appeared in BITSAT-2018 for 3040 seats.
- Use of secure high-end Technology.
- Choice of date, time and center for candidates, and immediate result on computer screen.
- Eligibility criteria for admission to Integrated First degree programmes: A Minimum 75% aggregate marks in Mathematics, Physics & Chemistry with a minimum of 60% in each (in 10+2 stream).

In addition to admission through BITSAT: direct admission offers were made to board toppers irrespective of their BITSAT score. 13 board toppers joined BITS in 2018.



86 students were admitted under 'International students' admissions scheme'.

The results of admissions to BITS were made available on Internet. Candidates applying for admission to BITS could find the latest information on the status of their application at <http://www.bitsadmission.com/>. Information on waiting list status, fee payment status etc. was made available and thousands of applicants used this instant access for information.

The number of admissions made to various programmes of the Institute in the year 2018 are given in the table below. The numbers in brackets indicate number of female students. The details such as programme-wise cut-off scores etc. are given in 'Annexure A -3'. A comparison of the cut-off marks/scores for admissions to BITS since 1966 are given in 'Annexure A-4'.

	II Semester 2017-2018	I Semester 2018- 2019
1. BITS Pilani, Pilani Campus		
Integrated First Degree Programmes		1047 (142)
Higher Degree Programmes		347 (99)
Doctoral Programmes	50 (21)	54 (22)
Total	50 (21)	1448 (263)
2. BITS Pilani , K.K. Birla Goa Campus		
Integrated First Degree Programmes	-	898(81)
Higher Degree Programmes	-	169(52)
Doctoral Programmes	40 (12)	41 (18)
Total	40 (12)	1108 (151)
3. BITS Pilani, Hyderabad Campus		
Integrated First Degree Programmes	-	1093 (190)
Higher Degree Programmes	-	229 (79)
Doctoral Programmes	54 (20)	45 (23)
Total	54 (20)	1367 (292)
4. BITS Pilani, Dubai Campus		
Integrated First Degree Programmes	7(03)	295 (96)
Higher Degree Programmes	9 (01)	26 (07)
Doctoral Programmes	5 (03)	10 (07)
Total	21 (07)	331 (110)
5. Work-Integrated Learning Programmes		
PG Certificates & Diploma Programmes	412 (068)	467 (089)
Integrated First Degree Programmes	425 (020)	586 (039)
Higher Degree Programmes	1889 (524)	2729 (535)
Total	2726 (612)	3782 (663)
GRAND TOTAL (1+2+3+4+5)	2891 (672)	8036 (1479)

## A.5 FLEXIBILITIES: DUAL DEGREE ADMISSIONS

During the academic year 2018-2019, 856 students (342 at Pilani, 244 at Goa and 269 at Hyderabad and 1 at Dubai) were permitted to work concurrently for two first degrees under Dual Degree scheme. Details are given in 'Annexure A-5'.

## A.6 AWARD OF DEGREES AND MEDALS

### (a) Award of Degrees

During the year, a total of 8121(1884) degrees were awarded. The details on the award of degrees are given below. The numbers in brackets indicate number of female students.

	Number of degrees awarded				
	Pilani Campus	Goa Campus	Hyderabad Campus	Dubai Campus	WILP
82 <sup>nd</sup> Award (vide Board of Governors approval on 16-3-2018)	77 (24)	68 (10)	40 (09)	39 (6)	2684 (758)
83 <sup>rd</sup> Award (vide Board of Governors approval on 20-7-2018)	1307 (233)	742 (99)	920 (198)	421 (133)	1823 (414)
Total	1384 (257)	810 (109)	960 (207)	460 (139)	4507 (1172)

### (b) Award of Medals for Academic Year 2017-2018

#### A. BITS Pilani, Pilani Campus

The list of students who were awarded various medals, for the students graduated at the end of First Semester, Second Semester and Summer Term of the academic year 2017-2018 is given in the following table:

S.No.	ID.No.	Name	Gender	CGPA Obtained	Position Obtained	Type of Medal Awarded
Integrated First Degree Programmes (No. of students: 840)						
1.	2014A1PS0729P	MURTAZA HAIDARY	M	9.93	FIRST	GOLD
2.	2014A7PS0081P	ANIRUDH KUMAR BANSAL	M	9.88	SECOND	SILVER
3.	2014A3TS0219P	SIDDHARTH K	M	9.81	THIRD	BRONZE

#### B. BITS Pilani, K.K. Birla Goa Campus

S.No.	ID.No.	Name	Gender	CGPA Obtained	Position Obtained	Type of Medal Awarded
Integrated First Degree Programmes (No. of students: 568)						
1.	2014A7TS0403G	AMIT AGARWAL	M	9.91	FIRST	GOLD
2.	2014A7PS0001G	QUADROS KAREN ADITI	F	9.77	SECOND	SILVER
3.	2014A3TS0170G	ADVAIT PRASAD KOPARKAR	M	9.73	THIRD	BRONZE

#### C. BITS Pilani, Hyderabad Campus

S.No.	ID. No.	Name	Gender	CGPA Obtained	Position Obtained	Type of Medal Awarded
Integrated First Degree Programmes (No. of students: 689)						
1.	2014A7TS0096H	ANIKETH JANARDHAN REDDY	M	9.93	FIRST	} (Bracketed) GOLD
2.	2014AATS0299H	V ARVIND RAMESHWAR	M	9.93	FIRST	
3.	2014A7PS0032H	KEVIN BIJU	M	9.92	SECOND	SILVER
4.	2014AAPS0598H	DUSI ADITYA	M	9.91	THIRD	BRONZE

## D. BITS Pilani - Dubai Campus

S.No.	ID.No.	Name	Gender	CGPA Obtained	Position Obtained	Type of Medal Awarded
Integrated First Degree Programmes (No. of students: 368)						
1.	2014A9TS0015U	A KARTHIK VASUDEV	M	10.00	FIRST	GOLD
3.	2014A4PS0109U	VARUN VINAY KOTHARI	M	9.89	SECOND	} (Bracketed) SILVER
4.	2014AAPS0047U	UPASANA CHAKRABORTY	F	9.89	SECOND	
2.	2014A4PS0013U	AKSHAY NIRANJAN GIDWANI	M	9.88	THIRD	BRONZE

**Director's Medals for the Best All Round Achievement (Dubai Campus)**

In addition to the Institute Medals, at Dubai Campus Director's medals are awarded to one male and one female student for the best all-round achievement, in every graduating batch. For the 2018 graduating batch, the Director's medals were awarded to the following students:

S. No.	ID. No.	NAME	SEX
1.	2014A1PS0024U	JITHIN GOPAKUMAR	M
2.	2014AAPS0047U	UPASANA CHAKRABORTY	F

## A.7 MoUs

The Institute has signed Memoranda of Understanding with the following reputed organizations during 2018.

- Credit Suisse Services (India) Private Limited (CSSI) and Credit Suisse Business Analytics (India) Private Limited (CSBA), Mumbai
- Tata Consultancy Services Limited, Mumbai
- University of Virginia, Charlottesville, Virginia, USA
- Aricent Technologies (Holdings) Limited, Bangalore
- The University of Tartu, Tartu, Estonia
- Hiroshima University, Hiroshima, Japan
- Deccan Fine Chemicals (India) Private Limited, Hyderabad
- International Center for Biosaline Agriculture, Dubai, UAE
- Cummins India Limited, Pune
- Thermax Limited, Pune
- Trinity College, University of Dublin, Dublin, Ireland
- Integrated Headquarters of Ministry of Defence (Army), New Delhi
- The College of Engineering, National Cheng-Kung University, Tainan, Taiwan
- Tunghai University, Taichung, Taiwan
- Society for Asian Rotomoulders (StAR), New Delhi
- Ontario Universities International, Toronto, Canada
- University of Queensland, St. Lucia, Australia
- College of Life Sciences, Kaohsiung Medical University, Taiwan
- Nanhua University, Taiwan
- Inter-University Centre for Astronomy & Astrophysics (IUCAA), Pune
- Norwegian University of Science and Technology (NTNU), Trondheim, Norway
- Johnson Controls (I) Pvt. Ltd., Mumbai
- University of Illinois, Champaign, USA

## A.8 NUMBER OF STUDENTS REGISTERED

	No. of Students Registered On -campus				
	Pilani Campus	Goa Campus	Hyderabad Campus	Dubai Campus	Total
Second Semester 2017 -2018	4891	3174	3799	1557	13421
First Semester 2018 -2019	5228	3689	3821	1438	14176
Summer Term 2017-2018	934	595	805	343	2677
GRAND TOTAL					30274

The above table includes students registered in First Degree, Higher Degree and Ph.D. Programmes.

## Category -wise Distribution of Ph.D. Students

During Second Semester 2017-2018, a total of 872 Ph.D. students were on-rolls, while a total of 950 Ph.D. students were on-rolls during First Semester 2018-2019.

S.No	Category	No. of Ph.D. Students on Rolls							
		II Semester 2017-2018				I Semester 2018-2019			
		Pilani	Goa	Hyderabad	Dubai	Pilani	Goa	Hyderabad	Dubai
1	Research Scholars (FT+PT)	285	207	289	31	337	228	293	39
2	Lectures and Staff	7	14	12	02	7	11	8	03
3	Ph.D. Aspirants	8	03	11	03	8	03	10	03
TOTAL		300	224	312	36	352	242	311	45
GRAND TOTAL		872				950			

## A.9 COURSES OFFERED

Semester/ Summer Term	Pilani Campus	Goa Campus	Hyderabad Campus	Dubai Campus
II Semester 2017-2018	417	275	329	219
Summer Term 2017-2018	24	8	28	07
I Semester 2018-2019	416	304	353	231

## A.10 DEGREES OFFERED AT DIFFERENT CAMPUSES

## Pilani Campus

A. Integrated First Degree Programmes	B. Higher Degree Programmes
<p>B.E.</p> <p>Chemical</p> <p>Civil</p> <p>Computer Science</p> <p>Electrical &amp; Electronics Engineering</p> <p>Electronics &amp; Instrumentation</p> <p>Manufacturing Engineering</p> <p>Mechanical</p> <p>B.Pharm.</p> <p>M.Sc.</p> <p>Biological Sciences</p> <p>Chemistry</p> <p>Economics</p> <p>Mathematics</p> <p>Physics</p> <p>M.Sc.</p> <p>General Studies</p>	<p>M.E.</p> <p>Biotechnology</p> <p>Chemical</p> <p>Civil with Specialization in Structural Engineering.</p> <p>Civil with Specialization in Transportation Engineering.</p> <p>Civil with Specialization in Infrastructure Engineering &amp; Management</p> <p>Computer Science</p> <p>Communication Engineering</p> <p>Design Engineering</p> <p>Embedded Systems</p> <p>Manufacturing Systems Engineering</p> <p>Mechanical</p> <p>Microelectronics</p> <p>Software Systems</p> <p>M.Pharm.</p> <p>M.Pharm. (with Specialization in Pharmaceutics)</p> <p>M.Pharm. (with Specialization in Pharmaceutical Chemistry)</p> <p>Master of Business Administration (M.B.A.)</p>
C. Ph.D.	

## K.K. Birla Goa Campus

A. Integrated First Degree Programmes	B. Higher Degree Programmes
<p>B.E.</p> <p>Chemical</p> <p>Computer Science</p> <p>Electrical &amp; Electronics Engineering.</p> <p>Electronics &amp; Communication Engg.</p> <p>Electronics &amp; Instrumentation Engg.</p> <p>Mechanical</p> <p>M.Sc.</p> <p>Biological Sciences</p> <p>Chemistry</p> <p>Economics</p> <p>Mathematics</p> <p>Physics</p>	<p>M.E.</p> <p>Biotechnology</p> <p>Chemical Engineering</p> <p>Computer Science</p> <p>Design Engineering</p> <p>Embedded Systems</p> <p>Microelectronics</p>
C. Ph.D.	

## Hyderabad Campus

A. Integrated First Degree Programmes	B. Higher Degree Programmes
B.E. Chemical Civil Computer Science Electrical and Electronics Electronics & Communication Electronics & Instrumentation Mechanical B. Pharm. M.Sc. Biological Sciences Chemistry Economics Mathematics Physics	M.E. Biotechnology Chemical Engineering Civil with Specialization in Structural Engineering Civil with Specialization in Transportation Engineering Computer Science Communication Engineering Design Engineering Mechanical Mechanical with Specialization in Thermal Engg. Microelectronics M.Pharm. (with Specialization in Pharmaceutics)
C. Ph.D.	

## Dubai Campus

A. Integrated First Degree Programmes	B. Higher Degree Programmes
B.E. Biotechnology Chemical Civil Computer Science Electrical and Electronics Electronics and Communication Electronics and Instrumentation Mechanical	M.E. Design Engineering Electrical PED Software Systems Master of Business Administration (M.B.A.)
C. Ph.D.	

## A.11 PLACEMENT

	Pilani	Goa	Hyderabad	Dubai
Number of companies which conducted campus interviews	193	152	190	118
Number of offers made	893	549	722	124

## A.12 FACULTY DATA

As on January 1, 2019, the number of faculty members in each campus is given below:

Designation	Pilani		Goa	Hyderabad	Dubai	Total
	On Campus	Off Campus				
Tenured						
Senior Professors	3	-	2	2	1	8
Professors	36	-	22	20	17	95
Associate Professors	72	12	46	53	16	199
Assistant Professors	129	43	78	115	34	399
Non-Tenured						
Sr. Professor Emeritus	1	-	-	-	-	1
Professors on Contract	-	-	-	-	-	-
Visiting Professors	-	-	-	2	1	3
Assistant Professors on Contract	-	-	-	-	-	-
Visiting Assistant Professors	2	-	4	-	-	6
Sr. Lecturers	-	-	-	-	-	-
Lecturers	-	-	8	6	4	18
Visiting Faculty	4	-	6	2	-	12
Adjunct Faculty	-	-	-	-	-	-
Instructors	-	-	-	-	-	-
Professor Emeritus	-	-	-	-	-	-
Visiting Associate Professor	-	-	-	-	-	-
Total	247	55	166	200	73	741

During the year 2018, 109 new faculty members (30 in Pilani, 38 in Goa, 37 in Hyderabad and 4 in Dubai) joined. 56 faculty members (20 in Pilani, 22 in Goa, 10 in Hyderabad and 4 in Dubai) left the Institute for reasons such as planned/forced separation, resignation, expiry of term and retirement. Details are given in 'Annexure A-6'.

## A.13 PRACTICE SCHOOL STATISTICS

## University -Industry Linkages

An important aspect of education at BITS is its institutionalized linkages with the world of work. The Institute attaches great importance to the University-Industry Linkages and gives mutually reinforcing thrust to it through

various avenues like Practice School (PS), Work Integrated Learning Programmes (WILP), Technology Innovation Centre (TIC) and off-campus Ph.D.

### Practice School Programme

All integrated first degree and higher degree programmes of the Institute provide for a Practice School option. The past statistics show that almost all the students admitted, opt for this programme. During the calendar year 2018 the Practice School programme was operated at 589 stations, with 13 stations hosting both Practice School-I (PS-I) and Practice School-II (PS-II), accommodating 4371 students and 159 faculty members. Categorization of PS stations is given below:

S.No.	Categories of Organizations	No. of Organization in	
		PS-II & PS for Higher Degree	PS-I
1.	Banks and other Financial Institutions	56 (32)	3 (2)
2.	Design, Development, Consultancy and Software Organization.	280 (220)	83 (48)
3.	National Research Laboratories and other Research centers	18 (21)	37 (37)
4.	Production, Manufacturing and Public Work Units	35 (42)	75 (106)
5.	Publishing Houses, News Agencies and Museums	8 (5)	7 (4)
Total		397 (320)	205 (197)

In 2018, an integrated practice school allotment for 4503 students was carried out across Pilani, Goa and Hyderabad campuses. The statistical details of the centre-wise distribution of students and faculty at PS-I stations are given in Annexure A -7' followed by the details of the Operational Statistics of PS-II and PS for higher degree in Annexure A -8. Growth statistics of PS-I, PS-II and PS for higher degree are given in Annexure A -9, while facilities available at various PS-II stations are given in Annexure A -10.

Following is the breakup of students who were registered in PS -I, PS-II & PS for Higher Degree:

PS-I	Summer Term 2017-2018	(2189)	2119
PS-II	II Semester 2017-2018	(845)	787
	I Semester 2018-2019	(1175)	1204
PS for Higher Degree			
	II Semester 2017-2018	(294)	261
	I Semester 2018-2019	(00)	00
Total		(4255)	4371

Note:-The figures shown in brackets relate to the year 2018.

### Dubai Campus

During the calendar year 2018, the Practice School Programme was operated at 169 stations, with 15 stations hosting both Practice School –I (PS-I) and Practice School – II (PS-II), accommodating 705 students and 49 faculty members. Categorization of PS stations is given below:



S. No.	Category of Organizations	No. of Organizations	
		PS-II	PS-I
1.	Banks & other financial Institutions.	00 (00)	01 (00)
2.	Design, Development, Consultancy and Software Organization.	23 (30)	33 (29)
3	Trading	11 (08)	07 (04)
4	Production, Manufacturing and Maintenance	35 (34)	48 (45)
5	Other	07 (00)	08 (11)
	Total	61 (76)	80 (97)

With the present annual PS intake of 705 students, the PS programme covers almost entire eligible student population of the Institute. It is worthy to note that the Practice School operation at the Dubai Campus has been conducted successfully since 2002. The statistical details of the distribution of students and faculty at PS-I stations are given in Annexure B4 -15 followed by the details of the Statistics of PS-II are given in Annexure B4 -16. The Growth statistics of PS-I, PS-II are given in Annexure B4 -17, while facilities available at various PS-II stations are given in Annexure B4 -18.

Following is the breakup of students who were registered in PS-I, PS-II. (Note: The data pertaining to the calendar year 2018 is given in parenthesis.)

PS-I	Summer Term 2018	310(423)
PS-II	II Semester 2017-2018	203(180)
PS-II	I Semester 2018-2019	192(180)
	Total	705 (783)

#### A.14 ALUMNI RELATIONS CELL ACTIVITIES

##### Alumni Relation Cell

Distinguished Alumnus Award 2018:

“BITS Pilani Distinguished Alumnus Award” in 2018 was conferred to the following alumni:

S.No.	Name	Affiliation	Category
1	Prof. Reena Agarwal	Vice Provost for Faculty, McDonough Professor of Finance & Director, Georgetown Center for Financial Markets and Policy, Georgetown University, USA	Academia and Research
2	Prof. Prabhu L. Pingali	Professor and Director, Tata-Cornell Agriculture and Nutrition Initiative, Cornell University, USA	Academia and Research
3	Prof. Arun Somani	Anson Martin Distinguished Professor of Electrical & Computer Engineering, Iowa State University, USA	Academia and Research
4	Mr. Ajoyendra Mukherjee	EVP & Head - Global HR, Tata Consultancy Services, India	Corporate Leadership
5	Ms. Prasanna Gopalkrishnan	Executive Vice President, Chief Digital and Information Officer, Boston Private, USA	Corporate Leadership
6	Dr. Anand S Rao	Lead (Data & Analytics) & Partner, Pricewaterhouse Coopers, USA	Corporate Leadership
7	Mr. Anupendra Sharma	Global VP of Growth & Business Development, Siemens Healthineers, USA	Entrepreneurship
8	Mr. Tushar Jain	Founder and Group CEO, Automat Industries Ltd	Entrepreneurship

#### Alumni Contributions April – Dec 2018

Alumni contributed a total sum of Rs 2.86 crores under various initiatives between April to Dec 2018; over and above the major contributions amounting to a sum of Rs 1 million pledged by Mr. Prashant & Ms Anuradhha Palakurthi for research endowment, \$ 333031 by 1993-97/98 batch, and \$ 120000 by 1989 Batch

#### Alumni Relations – Project Lakshya

Two teams to take specific initiatives under Fundraising and Policies, Office Structure, Databases, Events under implementation of recommendations by BCG under project Lakshya have been formed. Each team is headed by Associate Dean Alumni Relations. Associate Dean / Faculty-in-Charge in each campus created a campus specific plan for the AY 2018-19 with initiatives in each of the area mentioned in Project Lakshya for Alumni Relations.

#### BITS ECHO – a Newsletter

The four issues of the newsletter of Alumni Relations Cell-BITS ECHO, covering the important developments at the institute and alumni front were released during the year.

#### Prof S S R Memorial Teaching Excellence Award

Prof S S Ranganathan (SSR) Memorial Teaching Excellence Award - 2018, Instituted by BITS Alumni 1978-83 Batch has been conferred to Prof. Biju K Raveendran, Associate Professor, Computer Science, Information & Software Systems Department, in recognition of his excellence and consistent high standard of teaching at BITS Pilani, K.K. Birla Goa Campus.

#### Online Alumni Portal Services Agreement - AlmaConnect

An agreement has been signed between Alma Connect solutions Pvt. Limited and BITS Pilani to build/manage and update database in an organised way to get regularly connected with our esteem alumni.

#### Naming Right Policy

Naming Rights Policy was finalised and approved by the Governing Body during the year. The policy provides for naming rights towards contributions in different areas such as infrastructure facilities, scholarships, Chair professorships, setting up of labs etc. The policy was officially released in the Alumni meet held in Dubai on 8<sup>th</sup> December 2018.

#### MOU for Scholarships/Fellowship

A MOU has been signed by members of the extended Prof V Krishnamurthy family to create an endowment with an estimated corpus of over \$235600 for funding scholarships in the name of “Prof V Krishnamurthy and Mrs. Kamala Krishnamurthy” for qualified needy students to study at Pilani Campus of Birla Institute of Technology & Science (BITS). Dr Satish Kumar Goel, 1980 batch has set up first research fellowship in the name of his parents naming "Dr Goel's OMKARA Scholarship" to partly support a research scholar.

#### MOU with 1988 batch for BITS88 Scholarships

A MOU was signed between BITS Pilani and BITSAA International towards the announcement of a substantial ~ Rs1.5 crore (~\$200,000) gift to BITS-Pilani Campus that will support student success across disciplines by way of Scholarships.

#### **Inauguration of Kishore Kumar Gupta’s Electrical Machine Laboratory**

A new state of the art Electrical machines lab was inaugurated at BITS Pilani on 15th November 2018.

#### Alumni Batch Visits

During the year, a number of alumni batch visits were organized. Some of the prominent batch meets having large participation organized during the year are - Ruby Jubilee Graduation Celebration of 1973-78 batch, Golden Jubilee Graduation Celebration of 1963-68 batch, Ruby Jubilee Reunion Celebration of 1978-83 batch, Silver Jubilee Graduation Celebration of 1989-93 batch, and Silver Jubilee Reunion Celebration of 1993-97/98 batch

#### Farewell to Graduating Students - **Diaro's Party**

A high tea party was organized to bid a farewell to graduating students of class 2018 on Friday, 27<sup>th</sup> April 2017 and on 25<sup>th</sup> November 2018 to bid farewell to graduating students of class 2019. Similar farewell party's for graduating students were organized in other three campuses.

#### On-campus Lectures :

Alumni Relations Cell of BITS Pilani, Pilani Campus has organized a number of On-campus talks from January – December, 2018.

#### Dubai Campus

Talk by three Distinguished Alumni Awardees namely Dr Anand S Rao, Prof Reena Agarwal and Ms Prasanna Gopalakarishna were organized by the Alumni Relation on 2<sup>nd</sup> September 2018.

**ENGAGE'18** was organized at Dubai campus on 8<sup>th</sup> December 2018. It was an alumni meet which focused on providing alumni a platform to network and interact with each other along with a walk down the memory lane.

BITSian day was celebrated on 3<sup>rd</sup> August 2018 at Jazz@Pizza Express, Dubai. The event saw a good turnout of alumni both residents as well as passerby's. The event was jointly organized with BITSAA ME.

A number of interactions were arranged with Alumni during the year for the benefit of students and faculty in the areas of entrepreneurship, corporate excellence and research.

#### K.K. Birla Goa Campus

##### BITSians Day

'BITSians Day' was celebrated on 3<sup>rd</sup> August, 2018. A BITS – RUN (Marathon) was organized on the same day to celebrate the spirit of "Once a BITSian, Always a BITSian".

##### Embryo & On -campus Lectures/Events

Alumni Relations Cell of BITS Pilani K K Birla Goa Campus has organized 11 Embryo & On-campus talks from January – December, 2018. Alumni Relations Cell conducted the fourth edition of the annual BITS Alumni Summit: Metanoia: The journey of Change 2018 on 25<sup>th</sup> of August, 2018.

##### Research Scholarship/Internships

Mr. Satish Sankaralingam initiated a research scholarship to three BE students in recognition to their research work. Summer Internship Assistance was offered to four students to conduct summer research at educational / research institutions across India (including BITS' campuses).

Other regular activities like bi-annual Director's Tea Party, batch snap sessions, Alumni Relations Cell registrations, souvenir distributions, bringing out the yearbook 'Melange' for out-going students, hosting visiting alumni on campus, etc.

## Hyderabad Campus

### Alumni Meet

Hyderabad Campus organized first Alumni meet of first and second batch passing out students on 12<sup>th</sup> January 2019 on campus. A daylong event had wonderful participation and engagement with Alumni.

### BITS2MS/Ph.D. Series

BITS2MSPHD is an initiative for BITS Pilani students and alumni who aspire for MS and PhD programs from world's leading universities and institutes. The BITS2MSPHD online talks were organized to connect MS/PhD aspirants with alumni pursuing graduate studies in universities all across the world.

### Embryo & On -campus Lectures

Throughout the academic year, BITS Embryo has connected eminent alumni to the campus, bringing first class inspiring talks to the students. To name a few, we have had Anudeep Durishetty (All India Rank 1, UPSC CSE 2017), Aditi Sharma (Foreign Internships), Ramit Mehta (Masters in management abroad). BITS Embryo will continue to bring in esteemed alumni to campus.

### Alumni / Student Accolade

Mr. V. Harikrishnan (2010B5A3402H), who joined Bhabha Atomic Research Centre after graduating from BITS Pilani - Hyderabad campus received the Homi Bhabha Medal for nuclear reactor physics for his performance during the training period. Mr. Gajraj Rathore (2015A5PS0869H), a fourth-year undergraduate in B. Pharm has recently completed summer internship from University of Sherbrooke, Canada through the prestigious *Mitacs Globalink* program.

## A.15 FINANCE AND FUND SUPPORT

The accounts of the Institute for the financial year 2017-2018 have been audited by M/s. S.R. Batliboi and Co.LLP, Gurgaon, who are the Statutory Auditors of the Institute. M/S Aneja Management Consultants Pvt Ltd, Chartered Accountants, Mumbai are the Internal Auditors.

### Finance and Funds during 2017-2018

**Investments:** As on 31st October, 2018, the investment in shares & Units of Mutual Funds (out of Corpus fund) stood at Rs. 1896.51 lakhs. The total fixed deposits with banks stood at Rs. 26090.79 lakhs.

**Expenditure:** The excess of income over expenditure as per Income & Expenditure Account was Rs.10882.96 lakhs.

**Pension to Staff:** As on 31<sup>st</sup> October 2018, twenty eight members of the staff were receiving pension. During the financial year 2017-2018, the Institute spent Rs. 35.00 lakhs on pension.

**Gratuity to Staff:** Institute has paid Rs. 265.41 lakhs to 55 staff members who left the institute.

**Medical Facilities:** During the financial year 2017-2018, the Institute spent Rs. 297.41 lakhs net for providing medical facilities to the students and staff of the Institute. The expenditure included contribution to Birla Sarvajanic Hospital, Mahadev Singhi Eye Hospital, medical reimbursement and amount spent on visits of various specialists to medical centres.

Financial Assistance to Students: The Institute spent Rs. 645.20 lakhs on scholarships to staff children/spouse/self to cover the fees for education at the Institute and local schools. Further, 3445 students received financial assistance of Rs. 2465.07 lakhs from different sources, details of which are given below:

S. No.	Particulars	No. of Students	Amount in Rs.
1.	UGC PG Scholarship	83	60,76,152
2.	Students Aid Fund	168	29,74,787
3.	Other States Scholarship	8	7,49,600
4.	Institute Merit Scholarship	439	4,15,02,870
5.	Institute Merit-cum-Need Scholarship	2747	19,52,03,597
Total		3445	24,65,07,006

#### A. Grants under DST - FIST:

##### Pilani Campus

S.NO	Department	Period (years)	Amt. Sanctioned ( 50:50 Basis)	Amount Released (in Lakhs)
Grants under DST - FIST Ongoing				
1	Mathematics	June 2014 - June 2019	37.50	-
2	EEE & I	Nov 2014 - Nov 2019	67.37	-
3	Mechanical Engineering	May 2014 - May 2019	68.00	-
4	Biological Science	June 2014 - June 2019	25.25	-
5	Chemistry Level II	July 2016 - July 2021	76.00	-
DST-FIST Grant (Completed)				
1	Chemical Engineering	Oct 2012 - Oct 2017	38.85	-
2	Civil Engineering	Oct 2012 - Oct 2017	32.00	-
3	Pharmacy	Jan 2013 - Jan 2018	62.50	-
4	Computer Science	Sept 2012 - Sept 2017	24.00	-

##### KK Birla Goa Campus

S.NO	Department	Period	Duration	Amt. Sanctioned ( 50:50 Basis)	Amount Released (in Lakhs)
Grants under DST - FIST Ongoing					
1	Mathematics	Aug 2015 - Aug 2020	5	37.5	18.75
2	Chemical Eng.	Jan 2015 - Jan 2020	5	62.00	31.00
3	Biological Sciences	Jan 2019 - Jan 2024	5	160.00	80.00
4	Physics	March 2018 - March 2023	5	290.00	145.00
Grants under DST - FIST Completed					
1	Mechanical Eng.	July 2010 - July 2015	5	80.00	40.00
2	EEE & I	Oct 2013 - Oct 2018	5	36.00	18.00
3	Chemistry	March 2013 - March 2018	5	77.00	38.50

## Hyderabad Campus

S.NO	Department	Period	Duration	Amt. Sanctioned ( 50:50 Basis)	BITS share (in Lakhs)
Grants under DST - FIST Sanctioned (Yet to received sanction letter)					
1	Pharmacy		5	138.00	60.00
Grants under DST - FIST Ongoing					
1	Biology	01.04.2014 to 31.03.2019	5	110.00	55.00
2	Chemistry	31.08.2014 to 30.08.2019	5	100.00	50.00
3	Civil Engineering	20.12.2014 to 19.12.2019	5	90.00	50.00
4	Mathematics	14.12.2015 to 13.12.2020	5	45.00	22.5
Grants under DST - FIST Completed					
1.	Pharmacy	Dec 2012 - Dec 2017	5	67.00	30

## BITS Pilani, Dubai Campus

## SCHOLARSHIPS

## Financial Assistance to Students

Financial Assistance to Students-637students received financial assistance of AED: 4,538,690/- under different categories for the Academic Year 2017-18, the details of which are given below:-

S.No	Particulars	No. of Students	Amount in AED
1	Institute Merit Scholarship	535	3,288,190
2	Higher Degree and Doctoral Scholarship	29	116,400
3	Need-based Scholarship (Physically challenged, Bereaved family discount)	6	1,07,400
4	Others (Staff, Siblings, Sports, Special Concessions)	67	1,026,700
Total		637	4,538,690

## A.16 WORK INTEGRATED LEARNING PROGRAMMES (WILP)

Since 1979, the Institute has been participating in the human resources development activities of the industries by evolving several degree programmes that integrate the working environment of the employees with the learning environment required by the Institute. These programmes are offered in several domains like Information Technology, Engineering Technology and Management.

The Institute conducts Work Integrated Learning Programmes (WILP) as a means of continuing education for employed professionals to meet the Learning & Development needs of a diverse spectrum of industries. These programmes are conducted through a collaborative partnership between BITS Pilani and the organization / industry, to build technical competencies and enable advancement of workplace skills. In a world of rapidly evolving technologies, these programmes represent a successful model to meet the consequent need for continuous education and up-skilling of the workforce.

Over the past three decades, these programmes have grown manifold, meeting the requirements of over 4000 organizations. At present, over 22,000 employed professionals are pursuing various degree programmes through WILP.

## SALIENT FEATURES

In line with the educational philosophy of the Institute of integrating theory with practice, the student's own work environment provides an ideal ground for a meaningful combination of the two through assignments, case studies, work experience, and projects. The interplay of work or practice and education is ensured since

students are admitted only to a programme that is in line with their work profiles, and with the endorsement and active support of the employer.

The programmes are industry focused, with highly contemporary and relevant curriculum, and the individual courses are taught at the same level of rigor as in programmes on the campus. Instruction is delivered at the workplace, using a judicious combination of asynchronous electronic means, and synchronous, faculty-led classes conducted either physically or through the use of technology. Extensive use is made of virtual laboratories, remote laboratories, simulations, case studies, assignments and projects drawn from the workplace for enhanced experiential learning.

## COURSES OFFERED

The number of courses, offered during the year 2017 is as follows:

	Number of Courses offered
Second Semester 2017-2018	700
First Semester 2018-2019	737

## PROGRAMMES OFFERED

Currently Operative Work Integrated Learning Programmes

Programmes	Collaborating / Sponsoring Organization
<b>B.Tech. Programmes</b>	
1. Engineering Design	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
2. Engineering Technology	- Designed for the HRD needs of a diverse spectrum of Engineering Industries and John Deere, Pune
3. Information Systems	- Designed for the HRD needs of a diverse spectrum of IT Industries and Wipro Bangalore
4. Manufacturing Technology	- Kirloskar Oil Engines, Kolhapur, Bharat Forge, Pune, Tata Motors, Jamshedpur; TACO, Pune; Maruti Suzuki, Gurgaon; Mahindra Motor Vehicles; Cummins, Pune
5. Power Engineering	- Aditya Birla Group, Tata Power, JSW Energy – Mumbai
6. Process Engineering	- Aditya Birla Group, Mumbai; JSW Steel, Toranagallu; Vedanta, Jharsuguda; BPCL, Mumbai

Programmes	Collaborating / Sponsoring Organization
<b>M.Sc. Programme</b>	
1. Business Analytics	- Designed for the HRD needs of a diverse spectrum of IT Industries
2. Information Systems	- Designed for the HRD needs of a diverse spectrum of IT Industries
<b>M.B.A. Programmes</b>	
1. Consultancy Management	- Designed for the HRD needs of a diverse spectrum of consulting firms
2. Finance	- Designed for the HRD needs of business organizations
3. Hospital and Health Systems Management	- Designed for the HRD needs of a diverse spectrum of Hospitals and Healthcare organizations
4. Manufacturing Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
5. Quality Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries

Programmes	Collaborating / Sponsoring Organization
<b>M.Tech. Programmes</b>	
1. Automotive Engineering	- Tata Technologies, Tata Motors, Pune; Mercedes Benz
2. Computing Systems & Infrastructure	- Designed for the HRD needs of a diverse spectrum of IT Industries, and Wipro, Bangalore
3. Data Science & Engineering	- Designed for the HRD requirements of a diverse spectrum of IT Industries
4. Design Engineering	- Designed for the HRD needs of a diverse spectrum of Engineering Industries, SKF and John Deere, Pune
5. Embedded Systems	- Designed for the HRD needs of a diverse spectrum of IT Industries, Cisco, Bangalore; UTC Bangalore and Hyderabad.
6. Environmental Engineering	- Goa Pollution Control Board, Goa
7. Manufacturing Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
8. Microelectronics	- Designed for the HRD needs of a diverse spectrum of IT Industries; Synopsys, Bangalore; Samsung, Gurgaon
Programmes	Collaborating / Sponsoring Organization
9. Pharmaceutical Operations and Management	- Designed for the HRD needs of a diverse spectrum of Pharmaceutical Industries, and Sun Pharmaceutical Industries, Vadodara; Lupin, Mumbai
10. Quality Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
11. Software Engineering	- Wipro Technologies, Dell, SAP Labs, Sabre, EMC, Oracle, Lowe's Services, Bangalore; Avaya, Tech Mahindra, Pune; Capgemini; Qualcomm, Hyderabad
12. Software Systems	- Designed for the HRD requirements of a diverse spectrum of IT Industries; Wipro Technologies, Bangalore; TCS, Hyderabad; Cisco, Synopsys, Bangalore; Samsung, Gurgaon
13. Systems Engineering	- Wipro Infotech, Bangalore
14. Telecommunications & Software Engineering	- Designed for the HRD needs of a diverse spectrum of Telecomm Industries
15. Transportation Engineering	- PWD, Goa
<b>Post Graduate Certificate Programmes</b>	
1. Finance	- Designed for the HRD needs of Business organizations
2. Manufacturing Management	- Designed for the HRD needs of Manufacturing organizations
<b>Post Graduate Certificate Programmes</b>	
1. Big Data Engineering	- Designed for the HRD needs of IT industries
2. General Management	- Designed for the HRD needs of Engineering industries
3. Internet of Things	- Designed for the HRD needs of IT industries
4. Manufacturing Practice	- Designed for the HRD needs of Manufacturing organizations
<b>Certificate Programmes</b>	
1. Manufacturing Practice	- Designed for the HRD needs of Manufacturing organizations
2. General Management	- Designed for the HRD needs of Engineering industries



**ADMISSIONS**

The number of students admitted in each of the semester is given below.

	PG Certificate & Diploma Programmes	Integrated First Degree Programmes	Higher Degree Programmes	Total
Second Semester 2017-2018	412 (68)	425 (20)	1889 (524)	2726 (612)
First Semester 2018-2019	467 (89)	586 (39)	2729 (535)	3782 (663)
Total	879 (157)	1011 (59)	4618 (1059)	6508 (1275)

The programme-wise details are given in 'Annexure B5-1'.

**NUMBER OF STUDENTS REGISTERED**

The registration processes for both the semesters were completed on the first day of each semester.

Semester	Number of students registered
Second Semester 2017-2018	17177
First Semester 2018-2019	17432

Details of Registration of students for the First Semester 2018-2019 are given in 'Annexure B5-2'.

**AWARD OF DEGREES**

During the year, a total of 4508 students graduated. The details on the award of degrees are given below.

	Number of degrees awarded
82 <sup>nd</sup> Award (vide Board of Governors meeting held on 03.03.2018)	2684(758)
83 <sup>rd</sup> Award (vide Board of Governors meeting held on 20.07.2018)	1823(414)
Total:	4507(1172)

Statistical details of these degrees are given in Annexure B5-6.

**A.17 OBITUARIES**

The Institute deeply mourns the sad demise of the following during the year:

1. Mr. Varun Terala, ID. No. 2016A8PS0249P, a student of Pilani Campus died on December 30, 2017.
2. Shri Sajjan Kumar, PSRN 1111 (Sweeper), Estate Management Unit, Pilani Campus died on February 23, 2018 after prolonged illness.
3. Shri Sanwat Singh, PSRN 1350 (Security guard), Student Welfare Division, Pilani Campus died on the 26<sup>th</sup> November 2018 after prolonged illness.
4. Mr. Gundappa Jindatta Desai, GPSRN. G0045, an employee of K.K. Birla Goa Campus died on January 1, 2018.
5. Mr. Raghav S, ID No. 2015A3PS0340H, a student of Hyderabad Campus died on February 5, 2018.
6. Mr. Prashanth Nayak, UPSRN1196, a staff of BITS Pilani, Dubai Campus died in Road Accident on August 20, 2018.

Note: The complete annual report (Part A and Part B) along with the annexures is given in soft copy.



## PART A - ANNEXURES

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## GENERAL BODY

The 57<sup>th</sup> meeting of the General Body of the Institute was held on 16<sup>th</sup> March 2018 under Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute.

The Chancellor heartily welcomed the members and thanked them for attending the meeting and apprised the members that 3,285 students were admitted to Bachelor's Programme in Academic Year (AY) 2017-18, i.e. an increase of 29% over the AY 2016-17 number of 2,547. The increased student intake is attributable to availability of enhanced facilities i.e. hostels and academic blocks at all three campuses and admission to Higher Degree (HD) and PhD Programmes was at 870 (598 + 272) compared to 512 (378 + 134) during AY 2016-17. Focus on admissions to these programmes continues.

However, the number of applicants for Birla Institute of Technology and Science Admission Test (BITSAT) recorded a modest decline with 1.7 Lac in AY 2017-18 compared to 1.78 Lac in AY 2016-17. It may be noted that the IIT JEE Mains also saw a drop of ~10% in registrations.

The Chancellor also apprised the members that the student placements exhibited improvements. There was an increase of ~6.6% in recruiter visit in AY 2017-18 over AY 2016-17 due to addition of new profiles such as Data Science, Machine Learning and Artificial Intelligence. Key first-time recruiters included a number of reputed companies such as Apple, Uber, PayTM, Sandisk, Toshiba, Ecozen, Oyo, Societe Generale, Sling Media, Deutsche Bank, Telstra, Quantiphi, Bombardier, Michelin, Holiday IQ, BNY Mellon, Ola, Sedemac. 83% of FD students had been placed as on 28<sup>th</sup> February 2018. The median annual salary increased from Rs. 9 Lac to Rs. 10.3 Lac and the average annual salary grew by 14.4%.

The Chancellor informed the members that with the rapidly changing business environment, the demand for Work Integrated Learning Programmes (WILP) has gained further impetus. Today, organizations encourage their workforce to opt for higher education, not just to retain good talent but also to equip employees with necessary skills and knowledge to take on higher roles and responsibilities. Some of the new initiatives in WILP during the year include programmes in Big Data Engineering and Internet of Things, Faculty Development Programmes, Partner Engagement Programmes and Digitization of Admission process. These efforts are focused on defining and articulating the enhanced value proposition that we offer to students and the organizations that partner with us in these programmes.

The Chancellor also informed the members that at Dubai Campus admission in First Degree (FD) decreased AY 2017-18 possibly due to economic downturn of UAE and GCC countries. 342 (37% female) students were admitted including 307 in FD and 35 in HD and PhD programmes. As part of the drive to enhance admissions numbers for AY 2018-19, a scholarship examination was conducted online with the help of Phyzok, one of India's leading ed-media tech companies in December 2017 where 8250 students appeared. Additionally, BPDC organized a conference in January 2018, which was attended by 120 leadership delegates from top schools of India and UAE. Attention is also focused on making it attractive for students to stay on-campus since hostels are under-occupied. Number of companies visiting Dubai Campus this year is higher due to which percentage of students placed increased for higher degree students, however median salary decreased by 21.4% in AY 2017-18 compared to AY 2016-17. New initiatives were taken this year to enhance the number of recruiters' including a drive to enable Dubai students getting placed through Indian campuses.

The Chancellor apprised that Institute's efforts to hire high quality faculty continues, with the focus remaining on entry-level Assistant Professor position and on those who have earned their PhDs from reputed Universities in India and overseas. Increasing the faculty strength year-on-year remains a challenge. The overall mix of our faculty has improved. Number of tenured, full-time regular (Assistant Professors and above) faculty members has increased while there is a steep decrease in non-tenured faculty members (Lecturers, Visiting Faculty, etc.) as planned.

Attracting and retaining quality faculty remain a priority for BITS. The establishment of new MHRD Institutions such as IITs, NITs, and IIMs has added to the challenge.

The Chancellor informed that BITS's focus on enhancing the scale of sponsored research is yielding results. Sponsored research grant approvals has seen a healthy rise last year. During Financial Year 2017-18 (first 11 months), 97 project proposals were approved to receive research grants totaling over Rs. 28.8 crore. 112 PhDs were conferred in 2017.

The Chancellor told the members that the Modernisation and Expansion plans at the three Indian campuses are in full swing. Substantial work has been completed in the last three years. At Pilani Campus, renovation and augmentation of Vishwakarma Bhawan, Malaviya Bhawan 'A', Meera Bhawan 7 and 8 have been completed and they have been handed over. Married PhD student housing for 60 families has been handed over and renovation of FD-1 has been completed. Two boys' hostels, Lecture Theatre Complex, and expansion of girls' mess has been completed and handed over in Hyderabad Campus. Faculty housing 01 and 02 has been completed in Hyderabad campus. One boys' hostel, one girls' hostel, a 16-apartment faculty housing and Phase 1 of New Academic Block has been handed over in Goa Campus.

The Chancellor informed the members that the engagement with alumni continues to strengthen, with alumni participating and supporting BITS in many ways. The first Dean, Alumni Relations have been appointed to lead these efforts supported by a newly formed Student Alumni Cell. The Institute is working to establish a much stronger connect with the alumni through engagement with Birla Institute of Technology and Science Alumni Association (BITSAA) and the Indian chapters. Several initiatives are on the anvil to derive substantial alumni support for Institute infrastructure, scholarship and research initiatives.

The General Body noted the actions of the Chancellor approving the following:

- (a) Extension of the term of appointment of Prof. Ashoke Kumar Sarkar as Director, Pilani Campus with effect from 16<sup>th</sup> April 2018 for a period of two years.
- (b) Constitution of the Selection Committee consisting of the following for the appointment of Registrar:
  1. Chancellor, BITS Pilani
  2. Mr. D. Bhattacharya, Member, Board of Governors, BITS Pilani
  3. Vice-Chancellor, BITS Pilani
  4. Prof. G. Sundar, Director, Hyderabad Campus, BITS Pilani
- (c) Constitution of the following Selection Committee for the Distinguished Alumnus Award (DAA) of 2017:
  1. Mr. Uday Kotak (Chairman), Managing Director of Kotak Mahindra Bank
  2. Mr. D. Bhattacharya, Vice Chairman, HINDALCO and Member, BoG, BITS Pilani
  3. Prof. P.P. Chakraborty, Director, IIT Kharagpur
  4. Dr. Vijay Chandru, Co-founder and Chairman of Strand Life Sciences and DAA Winner
  5. Vice-Chancellor, BITS Pilani
  6. Prof. G. Raghurama (Director, Goa Campus, BITS Pilani)
  7. Prof. Arya Kumar (Dean, Alumni Relations) - Member-Secretary
- (d) Increase in the number of awardees for Distinguished Alumnus Award (DAA) from 5 to 7 and reduction of the areas for inviting nominations to three as mentioned below for 2018:
  1. Academia and Research
  2. Corporate Leadership
  3. Entrepreneurship, Public Life and Philanthropy
- (e) Implementation of amended maternity leave policy for all Indian campuses of BITS with effect from 1<sup>st</sup> April 2017 as notified by Government of India on 28<sup>th</sup> March 2017

The General Body received and recorded the reports on Research Activities of the Institute and collaboration with various Institutions/organisations both within India and abroad.

The General Body adopted the Report of the Board of Governors as to the state and condition of the Institute for the period from 1<sup>st</sup> January 2017 to 31<sup>st</sup> December 2017. While adopting the report the members expressed their happiness and satisfaction over the functioning of the Institute. The General Body also adopted the Balance Sheet and Income & Expenditure Account for the year ended on 31<sup>st</sup> March 2017 and approved the Budget Estimates of the Institute for the financial year 2018-2019 as recommended by the Finance Committee and the Board of Governors.

The General Body also noted the following:

- (a) An application has been submitted to Ministry of Human Resource Development, Government of India, New Delhi by the Institute on 11<sup>th</sup> December 2017 for selection as Institution of Eminence under Government's initiative to establish twenty 'Institutions of Eminence' to achieve world class status, from amongst the existing Government/private institutions and new institutions from the private sector.
- (b) The review report of the UGC Expert Committee who visited the Institute during 15<sup>th</sup> to 17<sup>th</sup> September 2017 about the functioning of the Institute.

The General Body unanimously reelected Dr. Kumar Mangalam Birla as Chancellor of the Institute for another term of five years with effect from 14<sup>th</sup> September 2018.

*The members congratulated Dr. Kumar Mangalam Birla on his unanimous election. They were appreciative that under his dynamic leadership, the Institute is progressing in all directions and wished that under his continued leadership, the Institute will further grow, excel and reach greater heights. The members also assured him whole-hearted cooperation and support.*

The General Body unanimously reappointed Smt. Shobhana Bhartia as Pro-Chancellor of the Institute for another term of five years with effect from 14<sup>th</sup> September 2018.

Under any other item, Chancellor proposed that Shri Chandramauli Balan, President, Kesoram Industries Limited - Cement Division, Hyderabad may be admitted as a member of the General Body in place of Shri Enrico Malerba with effect from 16<sup>th</sup> March 2018 for the term ending on 29<sup>th</sup> April 2019. The members unanimously approved the same.

## BOARD OF GOVERNORS

The Board of Governors of the Institute held its 71<sup>st</sup> Meeting on 16<sup>th</sup> March 2018 under Chairmanship of Dr. Kumar Mangalam Birla, Chancellor of the Institute.

The Chancellor heartily welcomed the members and thanked them for attending the meeting and apprised the members that 3,285 students were admitted to Bachelor's Programme in Academic Year (AY) 2017-18, i.e. an increase of 29% over the AY 2016-17 number of 2,547. The increased student intake is attributable to availability of enhanced facilities i.e. hostels and academic blocks at all three campuses and admission to Higher Degree (HD) and PhD Programmes was at 870 (598 + 272) compared to 512 (378 + 134) during AY 2016-17. Focus on admissions to these programmes continues.

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The Board of Governors noted the actions of the Chancellor approving the following:

- (a) Re-nomination of the following as members on the Board of Governors under the constituency "Four Nominees of the Birla Education Trust" with effect from 3<sup>rd</sup> September 2018 for a term of three years:
  1. Shri B.K. Birla
  2. Shri Sidharth Birla
  3. Shri Hemant Kumar
- (b) Re-nomination of the following as members on the Board of Governors under the constituency "Four Members co-opted by the Board of Governors of the Institute" with effect from 30<sup>th</sup> April 2018 for a term of three years:
  1. Smt. Manjushree Khaitan
  2. Shri D. Bhattacharya
- (c) Extension of the term of appointment of Prof. Ashoke Kumar Sarkar as Director, Pilani Campus with effect from 16<sup>th</sup> April 2018 for a period of two years.
- (d) Re-constitution of the Institute level 3-person Selection Committee for Senior Professorship consisting of the following:
  1. Dr. Kumar Mangalam Birla, Chancellor, BITS Pilani
  2. Mr. D. Bhattacharya, Member, Board of Governors, BITS Pilani
  3. Vice-Chancellor, BITS Pilani
- (e) Nomination of Prof. Ashoke Kumar Sarkar (Director, Pilani Campus) as member on the Board of Governors under the constituency "One Director by rotation from out of the Directors of Campuses of the Institute" with effect from 28<sup>th</sup> July 2018 for a term of three years.
- (f) Re-constitution of the Institute level Committee consisting of the following to recommend the list of names for faculty promotion for the consideration and approval of the Chancellor:
  1. Mr. D. Bhattacharya, Member, Board of Governors, BITS Pilani
  2. Vice-Chancellor, BITS Pilani
  3. Mr. Hemant Kumar, Member, Board of Governors, BITS Pilani
- (g) Constitution of the Selection Committee consisting of the following for the appointment of Registrar:
  1. Chancellor, BITS Pilani
  2. Mr. D. Bhattacharya, Member, Board of Governors, BITS Pilani
  3. Vice-Chancellor, BITS Pilani
  4. Prof. G. Sundar, Director, Hyderabad Campus, BITS Pilani
- (h) Appointment of the Institute wide Dean, Alumni Relations to drive the Alumni network globally.
- (i) Permission for raising funds from the alumni against naming rights of existing and proposed buildings and other similar infrastructural facilities.
- (j) Additional budget sanction of Rs. 1.83 crore towards Library expenses for e-subscription during Financial Year 2017-18.
- (k) Enhancement of 5% in compensation (salary, special allowances, housing rent) of Prof. R.N. Saha, Director, Dubai Campus effective from 1<sup>st</sup> April 2017.
- (l) Increase in the number of admissions of international students with some increase in fees.
- (m) Constitution of the following Selection Committee for the Distinguished Alumnus Award (DAA) of 2017:
  1. Mr. Uday Kotak (Chairman), Managing Director of Kotak Mahindra Bank
  2. Mr. D. Bhattacharya, Vice Chairman, HINDALCO and Member, BoG, BITS Pilani
  3. Prof. P.P. Chakraborty, Director, IIT Kharagpur
  4. Dr. Vijay Chandru, Co-founder and Chairman of Strand Life Sciences and DAA Winner
  5. Vice-Chancellor, BITS Pilani
  6. Prof. G. Raghurama (Director, Goa Campus, BITS Pilani)
  7. Prof. Arya Kumar (Dean, Alumni Relations) - Member-Secretary



- (n) Increase in the number of awardees for Distinguished Alumnus Award (DAA) from 5 to 7 and reduction of the areas for inviting nominations to three as mentioned below for 2018:
  1. Academia and Research
  2. Corporate Leadership
  3. Entrepreneurship, Public Life and Philanthropy
- (o) Additional budget sanction of Rs. 1 crore towards OPERA awards during Financial Year 2017-18.
- (p) Payment of Performance-linked Variable Pay to the Vice-Chancellor and Directors of the Institute for the Academic Year 2016-17.
- (q) Implementation of amended maternity leave policy for all Indian campuses of BITS with effect from 1<sup>st</sup> April 2017 as notified by Government of India on 28<sup>th</sup> March 2017.

The Board of Governors noted the following:

- (a) Nomination of Prof. Rajive Kumar, Advisor-I, P&AP, All India Council for Technical Education (AICTE), New Delhi by the AICTE to serve as a member on the Board of Governors of this Institute under the constituency "One Nominee of the All India Council for Technical Education" for a term of three years with effect from 23<sup>rd</sup> March 2017.
- (b) Nomination of Shri Akshay Poddar by the Zuari Global Limited, Gurgaon to serve as a member on the Board of Governors of this Institute under the constituency "One Nominee of the Zuari Industries Limited, Goa" for a term of three years with effect from 28<sup>th</sup> March 2017.
- (c) Nomination of Shri R. Subrahmanyam, Additional Secretary (Technical Education), Department of Higher Education, Ministry of Human Resource Development, Government of India, New Delhi by the Government of India to serve as a member on the Board of Governors of this Institute under the constituency "Three Nominees of the Government of India" for a term of three years with effect from 16<sup>th</sup> October 2017.
- (d) Executed Surety Bonds for a total amount of Rs. 19,90,45,652 for Pilani, Hyderabad and Goa campuses in favour of various research funding agencies as a mandatory requirement by the Institute.
- (e) An application has been submitted to Ministry of Human Resource Development, Government of India, New Delhi by the Institute on 11<sup>th</sup> December 2017 for selection as Institution of Eminence under Government's initiative to establish twenty 'Institutions of Eminence' to achieve world class status, from amongst the existing Government/private institutions and new institutions from the private sector.
- (f) The review report of the UGC Expert Committee who visited the Institute during 15<sup>th</sup> to 17<sup>th</sup> September 2017 about the functioning of the Institute.

The Board received and recorded the reports on Research Activities of the Institute and collaboration with various Institutions/organisations both within India and abroad.

The Board adopted the Report as to the state and condition of the Institute for the period from 1<sup>st</sup> January 2017 to 31<sup>st</sup> December 2017 and resolved to recommend the same to the General Body for adoption. While adopting the report the members expressed their happiness and satisfaction over the functioning of the Institute. The Board of Governors also approved the Balance Sheet and Income & Expenditure Account for the year ended on 31<sup>st</sup> March 2017 and recommended the same to the General Body for adoption.

The Board also recommended to the General Body the Budget Estimates of the Institute for the financial year 2018-2019 for its approval.

The Board of Governors, through its Circulatory Resolution dated 13<sup>th</sup> July 2017 has approved the conferment of 5431 degrees (81<sup>st</sup> Award) on the students since the last meeting of the Board of Governors and 13 medals to eligible students who have graduated for the academic year 2016-17.

The Board of Governors also approved the conferment of 2908 Degrees (82<sup>nd</sup> Award) on the students since the Circulatory Resolution dated 13<sup>th</sup> July 2017 of the Board of Governors.

DETAILS OF ADMISSIONS MADE DURING THE YEAR 201 8

(A) On-Campus Programmes:

Second Semester 201 7-2018

BITS Pilani, Dubai Campus

PROGRAMMES	No. of students joined
<i>1. Integrated First Degree Programmes:</i>	
B.E.	
Biotechnology	01(01)
Chemical Engineering	01(01)
Electrical and Electronics Engineering	01(00)
Mechanical Engineering	01(00)
Electronics and Instrumentation Engineering	00(00)
Computer Science	02(01)
Electronics and Communication Engineering	01(00)
Civil Engineering	00(00)
Total	07 (03)
<i>2. Higher Degree Programmes:</i>	
M.E.	
Microelectronics	00(00)
Design Engineering	03(00)
Software Systems	00(00)
Biotechnology	00(00)
M.B.A	06(01)
Total	09 (01)
Grand Total	16 (04)

3. Doctoral Programmes (Ph.D.):

BITS Pilani, Pilani Campus	50 (21)
BITS Pilani, K.K. Birla Goa Campus	40 (12)
BITS Pilani, Hyderabad Campus	54(20)
BITS Pilani, Dubai Campus	05 (03)
Total	149 (56)

PROGRAMMES	No. of students joined	BITSAT Cut-off scores	
		Highest	Lowest
<b>1. Integrated First Degree Programmes</b>			
<b>(a) Pilani Campus</b>			
<u>Group A</u>			
B.E.			
Chemical	74(13)	345	280
Civil	70(6)	333	274
EEE	114(9)	378	338
Mechanical	102(1)	370	313
B. Pharm.	49(20)	314	213
Computer Science	145(9)	434	378
Electronics & Instrumentation	73(6)	378	319
Manufacturing	36(5)	320	270
	<b>663 (69)</b>		
<u>Group B</u>			
M.Sc.			
Biological Sciences	70(13)	302	259
Chemistry	66(14)	327	265
Economics	80(15)	354	308
Mathematics	78(15)	371	297
Physics	81(11)	333	288
	<b>375(68)</b>		
<u>Group C</u>			
M.Sc.			
Gen. Studies	9(5)		
	9(5)		
Total :	<b>1047(142)</b>		
<b>(b) K.K. Birla Goa Campus:</b>			
<u>Group A</u>			
B.E.			
Chemical	76(8)	292	260
Electrical & Electronics	84(7)	346	308
Mechanical	108(2)	344	283
Computer Science	172(10)	398	347
Electronics & Instrumentation	83(11)	343	289
Electronics & Communication	87(10)	340	314
	<b>610(48)</b>		
<u>Group B</u>			
M.Sc.			
Biological Sciences	44(4)	294	252
Chemistry	50(5)	276	255
Economics	70(4)	338	292
Mathematics	66(10)	340	277
Physics	58(10)	336	275
	<b>288(33)</b>		
Total :	<b>898(81)</b>		

(c) Hyderabad Campus:

Group A

B.E.

Chemical	62(13)	286	257
Civil	64(4)	290	258
EEE	106(12)	320	298
Mechanical	148(13)	321	275
B.Pharm.(Hons.)	50(31)	282	177
Computer Science	185(21)	390	334
Electronics & Instrumentation	58(12)	311	286
Electronics & Communication	122(23)	371	312

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**795(129)**

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Group B

M.Sc.

Biological Sciences	42(8)	273	250
Chemistry	47(13)	310	254
Economics	79(17)	330	283
Mathematics	75(12)	297	267
Physics	55(11)	311	265

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**298(61)**

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Total : **1093(190)**

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Note:

- The above list consists of 88(27) students who are admitted under 'International students admissions' at Pilani 20(4), Hyderabad 34(14) and Goa 31(9).
- The above list consists of 13 students who are First rank holders from different central/ state boards admitted under 'direct admission of board toppers' scheme.
- The above numbers also include 30 admissions of staff children(28) and of BET school students(2), made under special dispensation consisting of 2 in Bio Sciences, 2 in Chemistry, 6 in Economics, 5 in Mathematics, 6 in Physics and 9 in General Studies.

(d) Dubai Campus:

*Admission to Integrated First Degree Programmes*

B.E.

Chemical Engineering	9 (03)
Civil	9 (03)
Electrical and Electronics Engineering	16 (04)
Mechanical Engineering	58(05)
Computer Science	157(57)
Electronics and Instrumentation Engineering	04(01)
Biotechnology	17(12)
Electronics and Communication Engineering	25(11)

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Total **295(96)**

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2. Higher Degree Programmes :

(a) Pilani Campus

M.E.

Biotechnology	21(17)
Chemical Engineering	8(03)
Civil (Structural Engineering)	22(03)
Civil (Transportation Engineering)	20(03)
Civil (Infrastructure Engineering)	11(02)
Computer Science	21(07)
Communication Engineering	22(07)
Design Engineering	19(01)
Embedded Systems	17(06)
Manufacturing Systems Engineering	15( 0)
Mechanical Engineering	20(01)
Microelectronics	27(05)
Software Systems	29(09)
MBA	62(17)
M.Pharm.	12(07)
M.Pharm. (Pharmaceutics)	13(09)
M.Pharm. (Pharmaceutical Chemistry)	8(02)

Total 347(99)

(b) Goa Campus

M.E.

Biotechnology	17(16)
Chemical Engineering	12(03)
Computer Science	39(10)
Design Engineering	38(03)
Embedded Systems	30(14)
Microelectronics	33(06)

Total 169(52)

(c) Hyderabad Campus

M.E.

Biotechnology	20(15)
Chemical Engineering	8(07)
Civil (Structural Engineering)	22(00)
Civil (Transportation Engineering)	14(07)
Computer Science	33(08)
Communication Engineering	19(06)
Design Engineering	24(02)
Mechanical Engineering	22(03)
Microelectronics	27(16)
M.Pharm. (Pharmaceutics)	21(14)
Thermal	19(01)

Total 229(79)

(d) Dubai Campus

M. E.

Design Engineering	04 (02)
Electrical PED	05 (00)
Software Systems	08 (03)

M.B.A

09 (02)

Total 26 (07)

3. Doctoral Programmes (Ph.D.):

(a) Pilani Campus	54 (22)
(b) K.K. Birla Goa Campus	41 (18)
(c) Hyderabad Campus	45 (23)
(d) Dubai Campus	10 (07)

Total 150 (70)

### Work-integrated Learning Programmes

1. PG Certificate & Diploma Programmes:

Certificate

General Management 65(001)

Post Graduate Certificate

Big Data Engineering 240(057)

Internet of Things 103(009)

Post Graduate Diploma

Finance 4(001)

Sub total 412(068)

2. Integrated First Degree Programmes:

B.Tech.

Engineering Technology 209(002)

Manufacturing Technology 40(001)

Process Engineering 88(001)

M.Sc.

Business Analytics 88(016)

Sub Total 425(020)

3. Higher Degree Programmes:

M.Tech.

Automotive Engineering 41(000)

Computing Systems & Infrastructure 397(200)

Design Engineering 183(024)

Embedded Systems 79(013)

Manufacturing Management 68(005)

Microelectronics 103(023)

Quality Management 78(011)

Software Engineering 92(043)

Software Systems 642(149)

MBA

Consultancy Management 38(012)

Finance 36(009)

Hospital & Health Systems Management 53(024)

Manufacturing Management 44(004)

Quality Management 35(007)

Sub total 1889(524)

Total 2726(612)

(B) First Semester 2018 -2019

PROGRAMMES	No. of students joined
1. PG Certificate & Diploma Programmes:	
Certificate	
Manufacturing Practice	87(004)
Post Graduate Certificate	
Big Data Engineering	273 (065 )
Internet of Things	96(016)
Post Graduate Diploma	
Finance	11 (005 )
Sub total	<u>467(089)</u>
2. Integrated First Degree Programmes:	
B.Tech .	
Engineering Technology	356 (17 )
Manufacturing Technology	109(02 )
Process Engineering	22 (2 )
M.Sc.	
Business Analytics	99 (18 )
Sub total	<u>586(039)</u>
3. Higher Degree Programmes:	
M.Tech.	
Automotive Engineering	40(04)
Computing Systems & Infrastructure	160(30)
Data Science & Engineering	395(57)
Design Engineering	198(16)
Embedded Systems	192(41)
Manufacturing Management	135(09)
Microelectronics	85(16)
Pharmaceutical Operations & Management	94(12)
Quality Management	95(10)
Software Engineering	98(42)
Software Systems	808(183)
Systems Engineering	51(6)
MBA	
Consultancy Management	83(24)
Finance	54(13)
Hospital & Health Systems Management	79(30)
Manufacturing Management	92(12)
Quality Management	70(30)
Sub total	<u>2729(535)</u>
Total	<u>3782(663)</u>

## SUMMARY

		II Semester 2017-2018	I Semester 2018-2019
1. BITS, Pilani – Pilani Campus			
Integrated First Degree Programmes		-	1047(142)
Higher Degree Programmes		-	347(99)
Doctoral Programmes		50(21)	54( 22)
	Total	50(21)	1448(263)
2. BITS, Pilani – K.K. Birla Goa Campus			
Integrated First Degree Programmes		-	898(81)
Higher Degree Programmes		-	169(52)
Doctoral Programmes		40(12)	41 ( 18 )
	Total	40(12)	1108(151)
3. BITS, Pilani – Hyderabad Campus			
Integrated First Degree Programmes		-	1093(190)
Higher Degree Programmes		-	229( 79 )
Doctoral Programmes		54(20)	45 (23)
	Total	54(20)	1367(292)
4. BITS, Pilani – Dubai Campus			
Integrated First Degree Programmes		07(03)	295(96)
Higher Degree Programmes		09 (01)	26(07)
Doctoral Programmes		05 (03)	10(07)
	Total	21 (07)	331 (110)
5. Work-Integrated Learning Programmes			
	II Semester 2017-18	I Semester 2018-19	Total
PG Certificate & Diploma Programmes	412(068)	467(089)	879(0157)
Integrated First Degree Programmes	425(020)	586(039)	1011(0059)
Higher Degree Programmes	1889(524)	2729(535)	4618(1059)
Total	2726(612)	3782(663)	6508(1275)



ADMISSIONS: QUALITY OF STUDENTS' INPUT

Year of Admission	Percentage of marks in Qualifying Subjects (General PCM)	
	Max.	Min.
1966-67	93.7	38.2
1967-68	91.2	52.0
1968-69	95.0	47.3
1969-70	92.7	51.6
1970-71	96.7	45.0
1971-72	92.3	56.2

Year of Admission	Semester	Normalised aggregate percentage	
		Highest	Lowest
1972-73	I Sem.	94.30	65.22
	II Sem.	88.16	65.22
1973-74	I Sem.	100.00	70.97
	II Sem.	94.41	70.97
1974-75	I Sem.	97.83	73.00
	II Sem.	97.83	80.11
1975-76	I Sem.	97.00	78.61
	II Sem.	96.14	79.76
1976-77	I Sem.	99.73	78.50
	II Sem.	92.30	69.63
1977-78	I Sem.	100.00	79.11
	II Sem.	97.19	82.84
1978-79	I Sem.	100.00	60.00
	II Sem.	98.05	79.67
1979-80	I Sem.	100.00	69.46
	II Sem.	99.87	84.24
1980-81	I Sem.	100.00	78.72
	II Sem.	(No admissions made)	
1981-82	I Sem.	100.00	81.10
	II Sem.	97.15	86.30
1982-83	I Sem.	100.00	84.13
	II Sem.	100.00	86.64
1983-84	I Sem.	100.00	84.68
	II Sem.	99.22	85.35
1984-85	I Sem.	99.89	85.60
	II Sem.	96.67	85.60
1985-86	I Sem.	100.00	85.05
	II Sem.	99.04	85.56

Year of Admission	Semester	Normalised aggregate percentage	
		Highest	Lowest
1986-87	I Sem.	100.00	88.63
	II Sem.	97.61	88.63
1987-88	I Sem.	100.00	88.11
	II Sem.	97.81	88.37
1988-89	I Sem.	100.00	88.86
	II Sem	100.00	92.63
1989-90	I Sem	100.00	89.03
	II Sem	98.96	89.03
1990-91	I Sem	100.00	90.90
	II Sem.	100.00	93.87
1991-92	I Sem.	100.00	90.96
	II Sem.	100.00	96.11
1992-93	I Sem	100.00	93.81
	II Sem.	100.00	94.71
1993-94	I Sem.	100.00	93.91
	II Sem.	100.00	95.02
1994-95	I Sem.	100.00	94.53
	II Sem.	99.52	94.99
1995-96	I Sem.	100.00	94.70
	II Sem	98.66	96.07
1996-97	I Sem.	100.00	95.27
	II Sem.	97.87	95.30
1997-98	I Sem.	100.00	95.31
	II Sem.	99.52	95.32
1998-99	I Sem.	100.00	95.10
	II Sem.	100.00	95.31
1999-2000	I Sem.	100.00	96.09
	II Sem.	98.89	96.70
2000-01	I Sem.	100.00	96.11
	II Sem.	99.79	96.11
2001-02	I Sem.	100.00	97.15
	II Sem.	100.00	97.44
2002-03	I Sem.	100.00	98.069
	II Sem.	100.00	98.069
2003-04	I Sem.	100.00	98.374
	II Sem.	100.00	98.374
2004-05	I Sem.	100.00	97.323
	II Sem.	99.673	97.323

Year of Admission	Semester	BITSAT Test Score	
		Highest	Lowest
2005-06	I Sem.	434	245
	II Sem.	366	267
2006-07	I Sem.	430	283
	II Sem.	300	283
2007-08	I Sem.	411	260
	II Sem.	386	251
2008-09	I Sem.	419	230
2009-10	I Sem.	422	255
	II Sem.	304	251
2010-11	I Sem.	398	258
2011-12	I Sem.	414	211
2012-13	I Sem.	414	258
2013-14	I Sem.	418	266
2014-15	I Sem.	430	160
2015-16	I Sem.	419	201
2016-17	I Sem.	423	224
2017-18	I Sem.	442	200
2018-19	I Sem.	378	177

STATEMENT SHOWING THE NUMBER OF CANDIDATES WHO HAVE BEEN PERMITTED IN THE ACADEMIC YEAR 2018-2019 TO PURSUE VARIOUS DUAL DEGREE PROGRAMMES UNDER VARIOUS PRIORITIES

(i) Pilani Campus:

FIRST PRIORITY

(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓ To →	A1	A2	A3	A4	A5	A7	A8	AB	Total
B1	11	09	07	06	-	10	03	03	49
B2	17	12	07	11	-	08	10	05	70
B3	05	07	22	08	-	26	04	06	78
B4	08	08	13	11	-	20	13	03	76
B5	04	06	16	15	-	16	09	02	68
Total	45	42	65	51	-	80	39	19	341

OTHER PRIORITIES

Programmes* From ↓ To →	B3	Total
A1	01	01
Total	01	01

Transfer within same tier

Programmes* From ↓ To →	A3	A7	A8	Total
A1	2		1	3
A2				
A3		3		3
A4		1		1
A8	2			2
AB				
B4		1		1
B5				
Total	4	5	1	10

Transfer within B to B

Program mes* From ↓ To →	B3	B4	Total
B1		1	1
B2	2	1	3
B5	1		1
Total	3	2	5

Vertical Transfers

From	To	No. of Students
B.E. Computer Science	M.E. Computer Science	1
M.Sc. Economics & B.E. Electrical & Electronics B.E. Electrical & Electronics	M.E. Embedded Systems	2
B.E. Civil	M.E. Civil (with Specialization in Transportation Engineering)	2
M.Sc. Chemistry & B.E. Electrical & Electronics B.E. Civil	M.E. Software Systems	2
B. Pharm.	M. Pharm. (with Specialization in Pharmaceutics)	1
B.E. Manufacturing Engineering	M.E. Mechanical Engineering	1
M.E. Design Engineering	Ph.D. in Mechanical	1
	Total	10

Minor Programmes: During the Academic year 2018-19, 122 students were admitted in Minor Programme, out of them 107 in Finance, 13 in Physics and 2 Film and Media.

(ii) K.K. Birla Goa Campus:

**FIRST PRIORITY**  
(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓ To →	A1	A3	A4	A7	A8	AA	Total
B1	8	1	6	4	1	3	<b>23</b>
B2	7	6	6	5	8	4	<b>36</b>
B3	6	8	7	21	12	10	<b>64</b>
B4	5	11	13	21	7	12	<b>69</b>
B5	7	7	9	15	5	5	<b>48</b>
<b>Total</b>	<b>33</b>	<b>33</b>	<b>41</b>	<b>66</b>	<b>33</b>	<b>34</b>	<b>240</b>

**OTHER PRIORITIES**

Programmes* From ↓ To →	B3	B4	B5	Total
A3				
A4	1	1		<b>2</b>
A7				
A8		1	1	<b>2</b>
<b>Total</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>4</b>

Transfer within same tier

Programmes* From ↓ To →	A3	A7	AA	Total
A3		1		1
A4	1			1
A8			1	1
AA		1		1
B4		2		2
<b>Total</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>6</b>

Transfer within B to B

Programmes* From ↓ To →	B1	B2	B3	B4	B5	Total
B1						
B2				1		<b>1</b>
B3						
B4			1			<b>1</b>
B5	1		2			<b>3</b>
<b>Total</b>	<b>1</b>		<b>3</b>	<b>1</b>		<b>5</b>

Vertical Transfers

From	To	No. of Students
M.E. Biotechnology	Ph.D.	3
	<b>Total</b>	<b>3</b>

(iii) Hyderabad Campus:

FIRST PRIORITY  
(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓ To →	A1	A2	A3	A4	A7	A8	AA	AB	Total
B1	3	2	8	4	2	-	2	-	21
B2	11	4	2	13	5	2	3	-	40
B3	2	8	11	5	33	4	14	-	77
B4	4	5	6	7	28	7	13	-	70
B5	3	4	9	15	12	6	10	-	59
Total	23	23	36	44	80	19	42	-	267

OTHER PRIORITIES

Programmes* From ↓ To →	A4	B3	Total
AA	-	1	1
AB	1	-	1
Total	1	1	2

Transfer within same tier:

Programmes* From ↓ To →	A3	A4	A7	A8	AA	Total
A1	1		-		-	1
A2	-	1	-		-	1
A3	-		1		2	3
A4	1		-	1	-	2
AA	-		2		-	2
B3			1			1
B4			1			1
Total	2	1	5	1	2	11

Transfer within B to B

Programmes* From ↓ To →	B3	B4	Total
B1	-		
B2			
B4	2	-	2
B5	1	2	3
Total	3	2	5

VERTICAL TRANSFERS

From	To	No. of Students
M.E. Biotechnology	Ph.D.	1
Total		1

(iv) Dubai Campus: One

S.NO.	ID NO	NAME	PERMITTED TO DUAL
1	2017A7PS0155U	SIMRAN MORE	MECHANICAL

\*Legend :

- A1 B.E. Chemical
- A2 B.E. Civil
- A3 B.E. Electrical & Electronics
- A4 B.E. Mechanical
- A5 B.Pharm.
- A7 B.E. Computer Science
- A8 B.E. Electronics and Instrumentation
- A9 B.E. Biotechnology
- AA B.E. Electronics & Communication
- AB B.E. Manufacturing Engineering
- B1 M.Sc. Biological Sciences
- B2 M.Sc. Chemistry
- B3 M.Sc. Economics
- B4 M.Sc. Mathematics
- B5 M.Sc. Physics
- C2 M.Sc. General Studies
- C5 M.Sc. Engineering Technology
- C6 M.Sc. Information Systems
- C7 M.Sc. Finance



FACULTY DATA

Pilani Campus

List of Faculty members who joined between 01 -01-2018 to 31 -12-2018.

S.No.	Name of the faculty member	Designation	Department	Date of Joining
1.	Gaurav Dwivedi	Assistant Professor, Gr-I	Mathematics	2-Jan-18
2.	Sandeep Sundriyal	Assistant Professor, Gr-I	Pharmacy	2-Jan-18
3.	Rajesh Kumar	Assistant Professor, Gr-I	Civil Engineering	4-Jan-18
4.	Yenuganti Sujan	Assistant Professor, Gr-I	EEE	23-Jan-18
5.	Etika Krishna Chaitanya	Assistant Professor, Gr-I	Chemical Engineering	15-Mar-18
6.	Samata Satish Mujumdar	Assistant Professor,(OC)-Gr-I	WILPD-Engineering	15-Mar-18
7.	Pratik Narang	Assistant Professor, Gr-I	CS&IS	8-Jun-18
8.	Bijoy Krishna Mukherjee	Assistant Professor, Gr-I	EEE	2-Jul-18
9.	Priyansh Singh	Visiting Faculty	Civil Engineering	2-Jul-18
10.	Nishant Roy	Assistant Professor, Gr-I	Civil Engineering	11-Jul-18
11.	Mukund Lahoti	Assistant Professor, Gr-I	Civil Engineering	17-Jul-18
12.	Ravinder Kumar	Visiting Faculty	ME	20-Jul-18
13.	Syed Mohammad Zafaruddin	Assistant Professor, Gr-I	EEE	20-Jul-18
14.	Meetha V. Shenoy	Assistant Professor, Gr-I	EEE	21-Jul-18
15.	Gaurav Watts	Visiting Faculty	ME	23-Jul-18
16.	Richa Shrivastava	Assistant Professor, Gr-I	Pharmacy	27-Jul-18
17.	Arun Kumar Giri	Associate Professor	Eco.&Fin.	1-Aug-18
18.	Rupam Goswami	Assistant Professor, Gr-I	EEE	4-Aug-18
19.	Dixit Vaibhav Anil	Assistant Professor, Gr-I	Pharmacy	30-Aug-18
20.	Vaibhav Soni	Assistant Professor, Gr-I	CS&IS	30-Aug-18
21.	Pankaj Arora	Assistant Professor, Gr-I	EEE	7-Sep-18
22.	A R Harikrishnan	Assistant Professor, Gr-I	ME	1-Oct-18
23.	Febin A Vahab	Assistant Professor(OC)-Gr-II	WILPD-CSIS	1-Oct-18
24.	Sadhana Jha	Assistant Professor, Gr-I	CS&IS	8-Oct-18
25.	Gaurav Nagpal	Assistant Professor,(OC)-Gr-I	WILPD-MGTS	2-Nov-18
26.	Sidharth Mishra	Associate Professor-Off Campus	WILPD-MGTS	12-Nov-18
27.	Rejesh N A	Assistant Professor,(OC)-Gr-I	WILPD-EEE	3-Dec-18
28.	Mohammad Faraz Naim	Assistant Professor, Gr-I	Management	10-Dec-18
29.	Aneesh A M	Assistant Professor, Gr-I	ME	17-Dec-18
30.	Nithin Tom Mathew	Assistant Professor,(OC)-Gr-I	WILPD-Eng.	17-Dec-18

List of Faculty members who left the Institute between 01 -01-2018 to 31-12-2018

S.No.	Name of Faculty	Desig.	Date of Leaving	Reason
1.	Ravi Kant Mittal	Senior Professor	17-Jul-18	Normal Retirement
2.	Raghunathan Rajasekaran	Associate Professor	18-Dec-18	Permanent Int Cpny Transfer
3.	Subit Kumar Saha	Professor	21-Dec-18	Permanent Int Cpny Transfer
4.	Somdatta Bhattacharya	Assistant Professor, Gr-I	19-May-18	Resignation
5.	Nayan Khare	Assistant Professor,(OC)-Gr-I	31-Jul-18	Resignation
6.	Prasanta Kumar Sahu	Assistant Professor, Gr-I	16-Dec-18	Permanent Int Cpny Transfer
7.	Kuldeep Kumar	Assistant Professor, Gr-I	5-Jan-18	Resignation
8.	Vishakha Vijay Sakhare	Assistant Professor, Gr-I	11-Jan-18	Resignation
9.	Varsha Mamidi	Assistant Professor,(OC)-Gr-I	6-Jan-18	Resignation
10.	Dhanashree N P	Assistant Professor(OC)-Gr-II	20-Jul-18	Resignation
11.	Mudliar Mahalakshmi Rajan	Associate Professor-Off Campus	14-Aug-18	Resignation
12.	Nilanjan Chattaraj	Assistant Professor, Gr-I	18-Dec-18	Resignation
13.	Asutosh Kar	Assistant Professor, Gr-I	10-May-18	Resignation
14.	Surabhi Koul	Visiting Assistant Professor	13-Jan-18	Resignation
15.	Varun Sharma	Assistant Professor, Gr-I	9-Jun-18	Resignation
16.	Simanchal Kar	Assistant Professor, Gr-I	18-Jul-18	Resignation
17.	Arindam Das	Assistant Professor, Gr-I	15-May-18	Resignation
18.	Nagendra Kumar	Assistant Professor, Gr-I	19-May-18	Resignation
19.	Rambir Rameshwar S Bhadouriya	Associate Professor-Off Campus	15-Dec-18	Resignation
20.	Gayathri Ananthanarayanan	Assistant Professor, Gr-I	18-Dec-18	Resignation

K.K. Birla Goa Campus

List of Faculty Members Joined for the period from 01 -Jan-2018 to 31 -Dec-2018

S.No	Name	Designation	Department	Date of Joining
1	Prof. Sandhya Mehrotra #	Associate Professor	BIO	01-Jan-2018
2	Prof. Rajesh Mehrotra	Associate Professor	BIO Sciences	01-Jan-2018
3	Dr. Meetha V. Shenoy	Visiting Faculty	EEE	08-Jan-2018
4	Dr. Sasanka Sankhar Reddy Chenna Reddy	Visiting Faculty	EEE	08-Jan-2018
5	Ms. Geeta Patil	Visiting Faculty	CS&IS	08-Jan-2018
6	Dr. Jitendra Kumar	Asst. Professor, Gr-I	EEE	10-Jan-2018
7	Ms. Parul Sahu	Visiting Faculty	Chemical Engg	12-Jan-2018
8	Mr. Partha Saha	Visiting Faculty	Economics	16-Jan-2018
9	Mr. Debidas Kundu	Visiting Faculty	EEE	29-Jan-2018
10	Dr. Vadiraj Hemadri	Asst. Professor, Gr-I	ME	30-Jan-2018
11	Dr. Darshak Bhatt	Asst. Professor, Gr-I	EEE	01-Mar-2018
12	Dr. Siddhartha Tripathi	Asst. Professor, Gr-I	ME	15-Mar-2018
13	Dr. Sukumar Vellakkal**	Asst. Professor, Gr-I	Economics	09-Apr-2018

S.No	Name	Designation	Department	Date of Joining
14	Dr. Shubhangi Gawali**	Asst. Professor, Gr-I	CS & IS	16-May-2018
15	Prof. Vinayak Naik	Asst. Professor, Gr-I	CS & IS	23-May-2018
16	Dr. Rajiv Kumar Chaturvedi	Asst. Professor, Gr-I	HSS	02-Jul-2018
17	Dr. Ritika Jaiswal	Visiting Asst. Professor	Economics	09-Jul-2018
18	Prof. Abhijit Pethe	Associate Professor	EEE	16-Jul-2018
19	Dr. Sasanka Sankhar Reddy Chenna Reddy*	Visiting Faculty	EEE	25-Jul-2018
20	Dr. Arfat Sofi	Asst. Professor, Gr-I	Economics	01-Aug-2018
21	Prof. Vinayak Naik**	Professor	CS&IS	01-Aug-2018
22	Dr. Hareesh A.G.	Visiting Faculty	HSS	04-Aug-2018
23	Dr. Paramita Haldar	Asst. Professor, Gr-I	Chemical Engg.	16-Aug-2018
24	Dr. Bidisha Banerjee	Asst. Professor, Gr-I	HSS	21-Aug-2018
25	Dr. Anindita Ghosh	Asst. Professor, Gr-I	HSS	23-Aug-2018
26	Ms. Vaishali Sharma	Visiting Faculty	Mathematics	01-Sep-2018
27	Dr. Mithun M.S.	Asst. Professor, Gr-I	EEE	06-Sep-2018
28	Prof. Basabdatta Bhattacharya	Associate Professor	CS & IS	26-Sep-2018
29	Dr. Subhasish Roy	Asst. Professor, Gr-I	Chemistry	08-Oct-2018
30	Dr. Anushaya Mohapatra	Asst. Professor, Gr-I	Mathematics	01-Nov-2018
31	Dr. Devendra Gokul Patil	Asst. Professor, Gr-I	ME	15-Nov-2018
32	Dr. Swastibrata Bhattacharyya	Asst. Professor, Gr-I	Physics	16-Nov-2018
33	Dr. Sayantani Sarkar	Asst. Professor, Gr-I	HSS	30-Nov-2018
34	Dr. Mohan Kumar Bera	Asst. Professor, Gr-I	HSS	01-Dec-2018
35	Dr. Soumyadip Bandyopadhyay	Asst. Professor, Gr-I	CS&IS	01-Dec-2018
36	Dr. Anup Basil Mathew	Asst. Professor, Gr-I	CS&IS	03-Dec-2018
37	Dr. Naveen Gupta	Asst. Professor, Gr-I	EEE	10-Dec-2018
38	Dr. Sujith Thomas	Visiting Asst. Professor	CS&IS	24-Dec-2018

# Joined as Assistant Professor, Gr -I and promoted to Associate Professor on 01<sup>st</sup> July 2018

\* Re-joined

\*\* indicates Re -designation

List of Faculty Members left between 01 -Jan-2018 to 31 -Dec-2018

S.No	Name	Designation	Department	Date of Exit
1	Ms. Parul Sahu	Lecturer	Chemical Engg.	04-Jan-2018
2	Dr. Bhupendra Reniwal	Assistant Professor, Gr-I	EEE	12-Jan-2018
3	Dr. Gaurav Singh	Assistant Professor, Gr-I	ME	15-May-2018
4	Dr. Siva Rama Krishna Prasad Talasila	Assistant Professor, Gr-II	CS&IS	18-May-2018
5	Dr. Mahadev Gawas	Visiting Faculty	CS&IS	30-May-2018
6	Dr. Jitendra Kumar	Assistant Professor, Gr-I	EEE	31-May-2018
7	Dr. Sreejith K.K.	Visiting Asst. Professor	HSS	07-Jun-2018
8	Dr. Shivam Verma	Assistant Professor, Gr-I	EEE	09-Jun-2018
9	Ms. Metilda Sagary Mary N.J.	Assistant Professor, Gr-II	EEE	04-Jul-2018
10	Dr. Dhanya Ram V.	Assistant Professor, Gr-I	Chemical Engg.	12-Jul-2018
11	Ms. Pragayan Barik	Assistant Professor, Gr-II	HSS	17-Jul-2018
12	Dr. Sasanka Sankhar Reddy Chenna Reddy	Visiting Faculty	EEE	17-Jul-2018
13	Dr. Meetha V. Shenoy	Visiting Faculty	EEE	17-Jul-2018
14	Dr. Alpeshkumar M. Dhorajia	Assistant Professor, Gr-I	Mathematics	31-Jul-2018

S.No	Name	Designation	Department	Date of Exit
15	Dr. Akshay Rane	Assistant Professor, Gr-I	Mathematics	16-Aug-2018
16	Dr. Anindita Ghosh	Assistant Professor, Gr-I	HSS	15-Dec-2018
17	Dr. Darshak Bhatt	Assistant Professor, Gr-I	EEE	20-Dec-2018
18	Dr. Rahul Thakur	Assistant Professor, Gr-I	CS&IS	26-Dec-2018
19	Mr. Shailendra Kumar Dhakad	Visiting Faculty	EEE	31-Dec-2018
20	Ms. Parul Sahu	Visiting Faculty	Chemical Engg.	31-Dec-2018
21	Mr. Debidas Kundu	Visiting Faculty	EEE	31-Dec-2018
22	Ms. Vaishali Sharma	Visiting Faculty	Mathematics	31-Dec-2018

### Hyderabad Campus

List of Faculty members who joined between 01 -01-2018 to 31-12-2018.

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
1	Amarthaluri Satyapaul Singh	Assistant Professor, Gr-I	CE	2-Jan-18
2	Lov Kumar	Assistant Professor, Gr-I	CS&IS	3-Jan-18
3	Nirmal Jayabalan	Assistant Professor, Gr-I	Pharmacy	3-Jan-18
4	Swastik Bhattacharya	Assistant Professor, Gr-I	Physics	3-Jan-18
5	Soumen Nandi	Visiting Faculty	CS&IS	5-Jan-18
6	Bandhan Bandhu Majumdar	Assistant Professor, Gr-I	CE	9-Jan-18
7	Vajjha Venkata Hara Gopal	Visiting Professor	Mathematics	20-Jan-18
8	Chayan Bhar	Visiting Faculty	EEE	27-Jan-18
9	Amit Ashok Vernekar	Assistant Professor, Gr-I	Chemistry	12-Mar-18
10	Akash Chaurasiya	Assistant Professor, Gr-I	Pharmacy	12-Mar-18
11	Jayesh A K	Assistant Professor, Gr-I	HSS	16-Mar-18
12	J Jabez Christopher	Assistant Professor, Gr-I	CS&IS	2-Apr-18
13	B Nandini	Assistant Professor, Gr-I	Chem. Engg.	5-Apr-18
14	Sourav Nandi	Visiting Faculty	EEE	16-Apr-18
15	Odelu Vanga	Assistant Professor, Gr-I	CS&IS	16-May-18
16	Santanu Koley	Assistant Professor, Gr-I	Mathematics	29-Jun-18
17	Rajesh Kumar Tripathy	Assistant Professor, Gr-I	EEE	5-Jul-18
18	R N Ponnalagu	Assistant Professor, Gr-I	EEE	5-Jul-18
19	Abhishek Kumar Thakur	Visiting Faculty	CS&IS	18-Jul-18
20	Aranya Bhuti Bhattacharjee	Professor	Physics	18-Jul-18
21	Sayan Kanungo	Assistant Professor, Gr-I	EEE	30-Jul-18
22	Manish Narwaria	Assistant Professor, Gr-I	EEE	30-Jul-18
23	Narasimha Bolloju	Visiting Professor	CS&IS	1-Aug-18
24	Deepika	Assistant Professor, Gr-I	Mathematics	1-Aug-18
25	Karumbaiah C N	Assistant Professor, Gr-I	EEE	1-Oct-18
26	Anhiti Patnaik	Assistant Professor, Gr-I	HSS	1-Oct-18
27	Paresh Saxena	Assistant Professor, Gr-I	CS&IS	1-Oct-18
28	Aswathy Raveendran	Assistant Professor, Gr-I	HSS	15-Oct-18

S.No.	Name of Faculty	Desig.	Discipline	Date of Joining
29	Ravi Shanker Vidyarthi	Assistant Professor, Gr-I	ME	10-Dec-18
30	Gurugubelli Venkata Pradha Saradhi	Assistant Professor, Gr-I	ME	17-Dec-18
31	Prasanta Kumar Sahu	Assistant Professor, Gr-I	CE	17-Dec-18
32	Raghunathan Rajasekaran	Associate Professor	Eco.&Fin.	19-Dec-18
33	Parikshit Parshuram Sahatiya	Assistant Professor, Gr-I	EEE	20-Dec-18
34	Shilpaa Anand	Associate Professor	HSS	20-Dec-18
35	Subit Kumar Saha	Professor	Chemistry	22-Dec-18
36	Rajib Ranjan Maiti	Assistant Professor, Gr-I	CS&IS	28-Dec-18
37	Prashant K Wali	Assistant Professor, Gr-I	EEE	29-Dec-18

List of Faculty members who Left the Institute between 01 -01-2018 to 31 -12-2018

S.No.	Name of Faculty	Desig.	Date of Leaving	Reason
1	Vijaya Bhaskar Marisetty	Professor	6-Jan-18	Resignation
2	Anand Magadi Narasimhamurthy	Associate Professor	31-Jan-18	Resignation
3	Siva Prasad A V S	Assistant Professor, Gr-I	12-May-18	Resignation
4	Chayan Bhar	Visiting Faculty	16-Jul-18	Resignation
5	K Chandra Sekhara Murty	Visiting Faculty	17-Jul-18	Term End
6	Subhas Ghosal	Associate Professor	15-Dec-18	Resignation
7	Asma Ahmed	Assistant Professor, Gr-I	18-Dec-18	Resignation
8	Abhishek Kumar Thakur	Visiting Faculty	29-Dec-18	Term End
9	Gokul Kannan Sadasivam	Assistant Professor, Gr-II	31-Dec-18	Term End
10	Soumen Nandi	Visiting Faculty	31-Dec-18	Term End

### Dubai Campus

List of Faculty members who joined between 01 -01-2018 to 31 -12-2018

S.No.	Name of Faculty	Designation	Discipline	Date of Joining
1.	Vivek Balachandra Kartha	Assistant Professor	Civil	17-Jan-18
2.	Deepthi Mary Dilip	Assistant Professor	Civil	06-Feb-18
3.	Sandeep Kumar Sharma	Assistant Professor	Mechanical	12-Jul-18
4.	Sapna Sadhwani	Lecturer	Computer Science	27-Aug-18

List of Faculty members who Left the Institute between 01 -01-2018 to 31 -12-2018

S.No.	Name of Faculty	Designation	Date of Leaving	Reason
1.	Gudipadu Venkatesh	Assistant Professor	26-Jun-18	Resignation
2.	Vishal Gangadhar Naranje	Assistant Professor	28-Jun-18	Resignation
3.	Saurabh Jain	Lecturer	31-Jul-18	Resignation
4.	Sandeep Kumar Sharma	Assistant Professor	15-Aug-18	Resignation

DETAILS OF DISTRIBUTION OF PS-I STUDENTS AND FACULTY OVER PRACTICE SCHOOL - I STATIONS  
DURING THE SUMMER 2018

S.No	CENTER_NAME	STATION_NAME	NO. OF STUDENT	NO. OF FACULTY
1	AGRA	IG AGRA RANGE	9	1*
2	AHMEDABAD	ADANI POWER	9	1*
		INFIBEAM	10	1*
		INTERNATIONAL CENTRE FOR ENTREPRENEURSHIP AND TECHNOLOGY (ICREATE)	12	1*
		RAJNAGAR TEXTILE MILLS (NATIONAL TEXTILE CORPORATION LTD)	9	1*
3	ALWAR	HONDA MOTORCYCLE & SCOOTER INDIA PVT. LTD.	5	1**
4	AURANGABAD	AURANGABAD ELECTRICALS	10	1
		GOODYEAR SOUTH ASIA TYRES PVT LTD.	5	1*
5	BAHADURGARH	HINDUSTAN PETROLEUM CORPORATION LTD.	5	1
6	BANGALORE	ADARSHA CONTROL & AUTOMATION PVT. LTD.	7	1**
		COUTURE AI PVT LTD.	6	1**
		HAL HELICOPTER DIVISION	12	1**
		HAPPIEST MINDS	6	1**
		HEADOUT	6	1**
		METARAIN DISTRIBUTORS PVT LTD	6	1**
		METRON LABS SOFTWARE TECHNOLOGIES PVT. LTD.	10	1**
		PAYTM	10	1**
		POWER GRID CORPORATION OF INDIA LIMITED	6	1**
		SEN SEI TECHNOLOGIES	5	1**
		SUNPLUS SYSTEM SOLUTIONS PVT. LTD.	4	1**
		TAPCHIEF +	7	1**
		ZINNOV MANAGEMENT CONSULTING+	2	1**
7	BHARUCH	BIRLA CELLULOSIC	13	1
8	BHOPAL	AIIMS	18	1*
		NEW BHOPAL TEXTILE MILLS BHOPAL (NATIONAL TEXTILE CORPORATION LTD)	7	1*
9	BHUBANESHWAR	THE INSTITUTE OF MINERALS AND MATERIALS TECHNOLOGY	16	1
10	CHANDRAPUR	MANIKGARH CEMENT	4	1
11	CHENNAI	BELIEF SYSTEMS+	5	1**
		CARBORUNDUM UNIVERSAL LTD.	9	1**
		CENTER FOR MEDICAL GENETICS	6	1**
		CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE	16	1**
		CENTRAL LEATHER RESEARCH INSTITUTE+	54	1
		EYWA PHARMA PVT. LTD.	4	1**
		NATIONAL METALLURGICAL LABORATORY	5	1**
		TAMIL NADU EGOVERNANCE AGENCY	20	1**
		TAMIL NADU SCIENCE AND TECHNOLOGY CENTRE	12	1**
		UST GLOBAL +	5	1**
12	COIMBATORE	CAMBODIA MILLS (NATIONAL TEXTILE CORPORATION LTD.)	5	1*
		COIMBATORE MURUGAN MILLS (NATIONAL TEXTILE CORPORATION LTD.)	5	1
		SOUTHERN REGIONAL OFFICE (NTCL)	5	1*
		ZF WINDPOWER	4	1*
13	DAMANJODI	NATIONAL ALUMINIUM COMPANY LIMITED - SMELTER PLANT	17	1
14	DEHRADUN	INDIAN INSTITUTE OF PETROLEUM	5	1
		INDIAN INSTITUTE OF REMOTE SENSING	20	1*
15	DELHI	505 ARMY BASE WORKSHOP	21	1*

S.No	CENTER_NAME	STATION_NAME	NO. OF STUDENT	NO. OF FACULTY
		COSMOS INFRA ENGINEERING (INDIA) PVT. LTD.	7	1**
		G.M.R. VARALAKSHMI FOUNDATION	5	1**
		GAIL (INDIA) LIMITED	5	1**
		INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS	7	1*
		INDIAN RED CROSS SOCIETY BLOOD BANK	22	1*
		JAGUAR OVERSEAS LTD.	4	1*
		MAPMYINDIA	11	1**
		NATIONAL TEXTILE CORPORATION LIMITED	10	1
16	DHANBAD	CSIR-CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH (CIMFR)	16	1
17	FARIDABAD	ESCORTS	15	1**
		SUPERSEALS INDIA LTD.	9	1**
18	GANDHINAGAR	BHASKARACHARYA INSTITUTE FOR SPACE APPLICATIONS AND GEOINFORMATIC	21	1*
		GUJARAT ENVIRONMENT MANAGEMENT INSTITUTE	10	1
		INSTITUTE OF SEISMOLOGICAL RESEARCH (ISR) DST	10	1*
		SRISTI SUMMER SCHOOL	1	1
19	GAUHATI	GAUHATI REFINERY	25	1
20	GOA	CG PPI ADHESIVE PRODUCTS LTD	4	1
		DEPARTMENT OF AGRICULTURE	5	1*
		ENCUBE ETHICALS PVT	5	1*
		FUNSKOOL (INDIA) LTD.	8	1*
		HELIX TECH.	5	1*
		HELPAGE INDIA	6	1
		MORMUGAO PORT TRUST	7	1*
		NATIONAL CENTRE FOR ANTARTIC AND OCEAN RESEARCH	12	1*
		NATIONAL INSTITUTE OF OCEANOGRAPHY	11	1*
		ORCHID BIO MEDICAL SYSTEMS	10	1*
		PARINATI SOLUTIONS PRIVATE LIMITED	5	1*
		PENTAIR WATER INDIA PVT. LTD.	4	1*
		QUALPRO DIAGNOSTICS	8	1
		SMART LINK NETWORK SYSTEMS	5	1*
		STARFLEX SEALING INDIA PVT. LTD.	5	1
		ZEPHYR BIOMEDICAL	9	1*
21	GREATER NOIDA	BHARAT PETROLEUM CORPORATION LTD.	6	1
22	GURGAON	CONVERGENT TECHNOLOGIES	5	1**
		MARUTI SUZUKI INDIA LIMITED	22	1
		POWER GRID CORPORATION OF INDIA	6	1*
23	HALOL	ADITYA BIRLA INSULATORS	4	1
24	HARIHAR	BIRLA POLYFIBERS	7	1
25	HUBBALLI	DESHPANDE FOUNDATION	6	1
26	HYDERABAD	ALEXA APPS +	15	1**
		CAPIOT SOFTWARE PVT. LTD.	7	1**
		DRDO - ASL	7	1**
		DRDO - CAS	10	1*
		DRDO - RCI	13	1
		EGNIFYA TECHNOLOGIES	8	1**
		G.M.R. VARALAKSHMI FOUNDATION	15	1**
		H.B.L. POWER SYSTEMS LTD.	9	1**
		L.V.PRASAD EYE INSTITUTE	10	1**
		MYTRAH ENERGY	6	1
		NCCCM	15	1*
		ONE97 COMMUNICATIONS LIMITED	3	1**
		PASS CONSULTING	10	1**
		POWER GRID CORPORATION OF INDIA LIMITED	5	1**
		RA CHEM PHARMA	4	1**
		VASANT CHEMICALS PRIVATE LIMITED +	5	1**

S.No	CENTER_NAME	STATION_NAME	NO. OF STUDENT	NO. OF FACULTY
		TELANGANA E-GOVERNANCE	37	1**
27	JAFRABAD	ULTRATECH CEMENT LIMITED	5	1*
28	JAGGAYAPET	THE RAMCO CEMENTS LTD.	19	1
29	JAIPUR	IT DEPARTMENT GOVERNMENT OF RAJASTHAN	11	1*
		JAIPUR DEVELOPMENT AUTHORITY	15	1
		KEC INTERNATIONAL LTD.	18	1*
30	JHARSUGUDA	SESA STERLITE LTD. (VEDANTA ALUMINIUM & POWER)	9	1*
31	JODHPUR	BIRLA WHITE CEMENTS	6	1
		REGIONAL REMOTE SENSING CENTRE	5	1*
32	KALPAKKAM	INDIRA GANDHI CENTRE FOR ATOMIC RESEARCH (IGCAR)	50	1
33	KOLAR	HONDA MOTORCYCLE & SCOOTER INDIA PVT. LTD.	6	1**
34	KOLKATA	DELTA STEP LEARNING PVT. LTD	6	1**
		DEPARTMENT OF PLANNING STATISTICS AND PROGRAM IMPLEMENTATION	15	1*
		HEDGE QUANTS ADVISORY LLP	5	1
		IRRIGATION AND WASTE WATER DEPARTMENT	8	1*
		TEXMACO LTD.	9	1**
		VARIABLE ENERGY CYCLOTRON CENTRE	5	1*
		WEST BENGAL E-GOVERNANCE	15	1**
35	KOTPUTLI	ULTRATECH CEMENT LTD.	8	1
36	KOVAYA	ULTRATECH CEMENT LIMITED	8	1
37	LUCKNOW	BOARD OF REVENUE - UP GOVERNMENT	18	1
		COUNCIL OF SCIENCE & TECHNOLOGY (CST)	20	1*
		UP -100 (POLICE EMERGENCY MANAGEMENT SYSTEM)	10	1*
38	MAHAPE	L & T ELECTRIC DIVISION	7	1*
39	MALKHED	RAJSHREE CEMENT	8	1
40	MANESAR	HONDA MOTORCYCLE & SCOOTER INDIA PVT. LTD.	8	1*
41	MOHALI	IDS INFOTECH LTD	10	1*
		SEMI- CONDUCTOR LABS MOHALI	5	1*
42	MUMBAI	ARCON TECHSOLUTIONS PVT LTD.	7	1**
		ASTECH SYSTEMS	6	1*
		ATOMIC ENERGY REGULATORY BOARD	10	1*
		CENTURY RAYON +	18	1
		COUTURE AI PVT LTD	5	1**
		HINDUSTAN PETROLEUM CORPORATION LIMITED	4	1*
		HOMI BHABHA CENTRE FOR SCIENCE EDUCATION	15	1*
		INDIA UNITED MILLS (NATIONAL TEXTILE CORPORATION LTD)	10	1*
		INSTAKASH TECHNOLOGIES PVT LTD	4	1
		KANSAI NEROLAC PAINTS LIMITED	6	1*
		LENEST	13	1**
		MAHINDRA SUSTEN PVT. LTD.	10	1**
		MUMBAI RAIL VIKAS CORPORATION LTD.	10	1**
		ORIENT ENTERPRISES	8	1
		PODAR MILLS MUMBAI (NATIONAL TEXTILE CORPORATION LTD)	6	1*
		REGIONAL OFFICE (NTCL)	15	1*
		SAMHITA SOCIAL VENTURES	10	1**
		TATA MILLS- DADAR (MUMBAI) (NATIONAL TEXTILE CORPORATION LTD)	10	1
		ULTRATECH CEMENT LTD AHURA CENTER	13	1**
43	NAGDA	GRASIM CHEMICALS	10	1*
		GRASIM INDUSTRIES +	51	1*
44	NAGPUR	METAL FAB HIGH TECH PVT LTD.	10	1*
45	NANDYAL	NANDI GROUP OF COMPANIES	16	1
46	NASHIK	CG POWER AND INDUSTRIAL SOLUTIONS LTD.	10	1*
		STARLITE LIGHTING LTD.	5	1*
47	NEEMUCH	VIKRAM CEMENT WORKS	8	1



S.No	CENTER_NAME	STATION_NAME	NO. OF STUDENT	NO. OF FACULTY
48	NOIDA	MILLION SPARKS FOUNDATION	5	1*
		NOIDA METRO RAIL CORPORATION (NMRC)	10	1*
49	PILANI	BIRLA MUSEUM	7	1**
		CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE +	38	1**
50	PITHAMPUR	MAHLE ENGINE COMPONENTS INDIA PVT. LTD.	6	1
		PINNACLE INDUSTRIES LTD.	5	1*
51	PUNE	APS LIFETECH	6	1**
		ASCENT CYBER SOLUTIONS PVT. LTD.	10	1**
		BANK OF MAHARASHTRA	20	1
		BHARAT FORGE LTD +	19	1**
		CENTURY TEXTILES	10	1**
		CHIZEL PRINTS MANUFACTURING PVT LTD	6	1*
		FORBES MARSHALL	10	1
		INDIAN METEOROLOGICAL DEPARTMENT	12	1**
		INTER-UNIVERSITY CENTRE FOR ASTRONOMY AND ASTROPHYSICS (IUCCA)	4	1*
		LIVEWEAVER INDIA PVT.LTD	10	1**
		MINDA CORPORATION LTD +	5	1**
		SA ELECTRONIC	5	1**
		TATA COMMUNICATIONS LTD.	5	1**
		TATA MOTORS LTD. +	10	1*
		TATA TECHNOLOGIES LIMITED	10	1**
52	RAIPUR	RAWAN CEMENT WORKS	10	1
53	REDDIPALAYAM	REDDIPALAYAM CEMENT WORKS	8	1
54	RENUKOOT	HINDALCO INDUSTRIES LIMITED	8	1
55	RENUSAGAR	HINDALCO INDUSTRIES LIMITED	13	1*
56	RISHRA	ADITYA BIRLA INSULATOR	6	1*
57	ROORKEE	GOVERNMENT IRRIGATION WORKSHOP	9	1*
58	ROURKELA	ROURKELA STEEL PLANT	68	1
59	SAHIBABAD	BHARAT ELECTRONICS LIMITED	5	1**
60	SANGAREDDY	AB-INBEV INDIA LIMITED (CHARMINAR BREWERIES)	4	1
61	SHAMBUPURA	ADITYA CEMENT WORKS	6	1*
62	SHIMLA	HELPEGE INDIA	6	1
63	SIMGA	HIRMI CEMENT WORKS	9	1*
64	SURAT	JNJ MACHINES PVT. LTD.	3	1*
		MAVERICK INSTITUTE PVT LTD	9	1*
65	TADPATHRI	ULTRATECH CEMENT LIMITED	6	1*
66	THANE	ECLIPSE INSTRUMENTATION PVT. LTD.	7	1*
67	TIRORA	ADANI POWER	7	1*
68	TRIVANDRUM	CENTRE FOR DEVELOPMENT OF IMAGING TECHNOLOGY	7	1
		ISRO INERTIAL SYSTEMS UNIT	5	1*
		UST GLOBAL +	40	1*
69	UDAIPUR	PYROTECH ELECTRONICS PVT. LTD.	15	1*
		VINAYAK BUILDTECH	4	1*
70	UMIAM	NORTH EASTERN SPACE APPLICATIONS CENTRE	14	1*
71	VIJAYAWADA	ANDHRA PRADESH INNOVATION SOCIETY	15	1**
		EFFTRONICS SYSTEMS PVT. LTD.	11	1**
72	VIJAYNAGAR	JSW STEEL	29	1**
73	VISAKHAPATNAM	ANDHRA PRADESH INNOVATION SOCIETY	9	1*
		HINDUSTAN PETROLEUM CORPORATION LIMITED	4	1*
		SARDA METALS & ALLOYS	8	1
74	VITHALPUR	HONDA MOTORCYCLE & SCOOTER INDIA PVT. LTD.	3	1
		205	2119	103

\* Faculty looking after more than one PS-I station

\*\* PS-II Faculty looking after PS-I

+ PS-I organizations hosting PS-II also

**SOME PRACTICE SCHOOL - II STATISTICS****Statistical Details of the Distribution of Students & Faculty over Practice School-II and Practice School (for Higher Degree) Stations during the year 2018**

S.No	Stations	Second Semester 17 - 18 (06.01.2018-18.06.2018)		First Semester 18-19 (04.07.2018-14.12.2018)		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
Aurangabad						
1	Bajaj Auto	2	1	-	-	2
2	Skoda Auto India Pvt. Ltd.	3	1*	2	1*	5
Bangalore						
3	A.T.E. Enterprises Private Limited, Research & Development	2	1*	-	-	2
4	Acko General Insurance Ltd.	-	-	1	1*	1
5	Aditya Auto products & Engg (I) .P.Ltd.	-	-	2	1*	2
6	Aditya Birla Group -Data and Analytics	-	-	4	1*	4
7	Adobe Systems	3	1	4	1	7
8	Altair Engineering India Pvt. Ltd. - Software Division	2	1	2	1*	4
9	Altisource Business Solutions	3	1	-	-	3
10	Amazon Development Center	9	1*	10	1*	19
11	Amazon Fulfillment Center	1	1*	-	-	1
12	American Express - Big Data Labs (BDL)	-	-	3	1*	3
13	American Express - Risk Information Management Capabilities (RIM- C)	-	-	2	1*	2
14	American Express India	2	1	-	-	2
15	Analog Devices - Design and Simulation	3	1	-	-	3
16	Analog Devices - Design Verification	2	1*	-	-	2
17	Analog Devices India Pvt Ltd -Quality management	1	1*	-	-	1
18	Analog Devices India Pvt. Ltd.	-	-	2	1	2
19	ARM Embedded Technologies Private Limited	9	1	14	1	23
20	Auquan	-	-	2	1*	2
21	Bank of Hodlers	-	-	1	1*	1
22	Beckman Coulter (formerly ReaMetrix India P Ltd)	2	1	2	1	4
23	belong.co	2	1	3	1*	5
24	Blue Jeans Network India Pvt. Ltd.	7	1	6	1*	13
25	Bosch Research and Technology center	-	-	4	1*	4
26	Bundl Technologies Private Limited (Swiggy)	6	1	19	1*	25
27	Cadence Design Systems India Pvt Ltd. - CAD Software	1	1	-	-	1
28	Capillary Technologies - Testing Automation	2	1*	3	1*	5
29	Centre for Artificial Intelligence & Robotics	3	1	4	1	7
30	Cisco Systems (India) Pvt. Ltd - Software Engineering	31	1	6	1*	37
31	Cloudcherry Analytics Pvt Ltd	-	-	4	1*	4
32	Cohesity Storage Solutions India Pvt. Ltd.	-	-	2	1*	2
33	Cypress Semiconductor India Pvt Ltd.	6	1*	-	-	6
34	Decision Resources Group	1	1	-	-	1
35	Dell R&D	4	1*	3	1*	7
36	Deloitte Consulting US India	1	1*	-	-	1
37	EMC	1	1	-	-	1
38	EnSci - A Unit of Weir Minerals India Pvt. Ltd.	2	1	-	-	2
39	Ericsson Global India Pvt. Ltd.	2	1	4	1*	6
40	Ernst & Young Global Delivery Services	1	1*	3	1*	4
41	Fidelity Investments	2	1*	3	1*	5

S.No	Stations	Second Semester 17 - 18 (06.01.2018-18.06.2018)		First Semester 18-19 (04.07.2018-14.12.2018)		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
42	Flipkart Analytics	6	1	-	-	6
43	Flipkart Internet Services Pvt. Ltd	20	1*	-	-	20
44	Frost & Sullivan India Pvt. Ltd.	3	1*	-	-	3
45	Genpact	7	1	21	1	28
46	Goldman Sachs - IT	1	1*	-	-	1
47	Goldman Sachs India Pvt. Ltd. - Operations	13	1*	12	1*	25
48	Goodera (NextGen PMS Pvt. Ltd)- Non IT	1	1*	7	1*	8
49	Goodera (NextGen PMS) - IT	8	1*	10	1	18
50	Groww	-	-	1	1*	1
51	HAPPAY (VA Tech Ventures Pvt Ltd.)	-	-	1	1*	1
52	HCL Technologies	-	-	6	1*	6
53	HealthCubed	-	-	2	1*	2
54	Here Maps	2	1*	-	-	2
55	Hindustan Unilever Research Centre	20	1*	10	1*	30
56	Holiday IQ- Tech	2	1*	-	-	2
57	Hortonworks Data Platform India Pvt. Ltd.	3	1	-	-	3
58	HSBC Electronic Data Processing India Pvt. Ltd.	-	-	4	1*	4
59	IBM India Software Group	13	1*	15	1	28
60	IBM Security - Fiberlink	8	1*	-	-	8
61	IMS Health	5	1*	-	-	5
62	Infinera	2	1*	5	1*	7
63	Ingersoll Rand India Ltd	1	1*	-	-	1
64	InMobi - Global Outreach	2	1	-	-	2
65	InMobi - Market, Sales Delivery	7	1*	-	-	7
66	InMobi - Software Development	-	-	6	1	6
67	InMobi - Supply Chain	9	1*	-	-	9
68	InMobi- Business Development	2	1*	24	1	26
69	Intel - Computer and VLSI Architecture	2	1*	6	1	8
70	Intel - Embedded Software	6	1*	-	-	6
71	Intel - GPU and VLSI Design	1	1*	5	1*	6
72	Intel - Testing & Verification	4	1*	3	1*	7
73	JDA Software Solutions	3	1*	26	1	29
74	John F Welch Technology Center (GE)	2	1*	6	1*	8
75	JP Morgan Chase - Technology	1	1*	10	1*	11
76	JPMC CIB Operations	5	1*	8	1*	13
77	Kristal.AI	-	-	2	1*	2
78	Kubric.io	-	-	2	1*	2
79	Lavelle Networks	3	1*	0	-	3
80	Lowes India	-	-	5	1*	5
81	MathWorks India Private Limited	1	1*	-	-	1
82	Media Iq Digital	3	1*	5	1*	8
83	MediaTek Bangalore Pvt. Ltd.	9	1*	-	-	9
84	Mercedes Benz	7	1*	8	1	15
85	Microsoft india Development center	3	1	-	-	3
86	MoEngage India Pvt. Ltd.	2	1*	-	-	2
87	National Aerospace Laboratories	2	1*	3	1	5
88	National Centre for Biological Sciences	3	1*	-	-	3
89	National Entrepreneurship Network	-	-	7	1*	7
90	National Instruments Systems (India) Pvt. Ltd.	-	-	1	1*	1
91	NetApp	5	1*	-	-	5
92	NetSkope Software India Pvt. Ltd.	4	1*	1	1*	5
93	Nutanix Technologies India Pvt Ltd - Data Science	-	-	1	1*	1
94	Nutanix Technologies India Pvt Ltd - MTS	-	-	10	1	10
95	Nutanix Technologies India Pvt. Ltd.	19	1*	-	-	19
96	Nvidia Graphics - Hardware	34	1	20	1	54
97	Nvidia Graphics -Software	7	1*	19	1*	26
98	Oracle India Pvt Ltd.	-	-	7	1*	7

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		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
99	PAYPAL	13	1*	2	1*	15
100	Petasense - Embedded Software	1	1*	-	-	1
101	Petasense - Machine Learning	2	1*	-	-	2
102	Petasense - Services & App Development	2	1*	3	1*	5
103	Postman	3	1*	4	1*	7
104	PricewaterhouseCoopers (PWC)	-	-	4	1*	4
105	Qualcomm India Pvt Ltd- Bangalore	8	1*	-	-	8
106	Qubole	4	1*	9	1	13
107	Rakuten- Artificial Intelligence	2	1*	-	-	2
108	Rakuten Inc	2	1*	-	-	2
109	Rakuten-Human resources& operations and recruitment	3	1*	-	-	3
110	Rakuten-Mobile App	1	1*	-	-	1
111	Reliance Jio	-	-	7	1*	7
112	Robert Bosch Center for Cyber Physical Systems	2	1*	2	1*	4
113	Robert Bosch Engineering & Business Solutions Private Limited	-	-	1	1*	1
114	S.R Batliboi & Associates LLP	1	1*	-	-	1
115	Samsung R &D Institute - CP (Communication Protocol)	1	1	-	-	1
116	Samsung R &D Institute - Image & Video Processing	8	1*	6	1*	14
117	Samsung R &D Institute - Intelligent Services	6	1*	5	1*	11
118	Samsung R &D Institute - Networks	20	1*	7	1	27
119	Samsung Semiconductor India R&D Center	4	1*	7	1	11
120	SanDisk	4	1*	-	-	4
121	Sattva Media & Consulting Pvt Ltd	3	1*	4	1*	7
122	Shell Technology Center	1	1*	-	-	1
123	SKF India Ltd.	1	1*	2	1*	3
124	STAR TV	1	1*	-	-	1
125	StateStreet Global Advisors	2	1*	4	1*	6
126	Sun Mobility	-	-	10	1*	10
127	Supply Basics - Business	5	1*	-	-	5
128	SupplyBasics - E-Commerce	2	1*	-	-	2
129	TapChief +	2	1*	5	1*	7
130	Tejas Networks	-	-	8	1*	8
131	TESCO Hindustan Service Centre	2	1*	5	1*	7
132	Texas Instruments (I) Pvt. Ltd - Systems	-	-	3	1*	3
133	Texas Instruments (I) Pvt. Ltd. -Analog	8	1*	2	1*	10
134	Texas Instruments (I) Pvt. Ltd. -Digital	1	1*	1	1*	2
135	Thinkerbell Labs - Electronics	-	-	1	1*	1
136	Thinkerbell Labs - People Operations	-	-	1	1*	1
137	Thorogood	-	-	4	1*	4
138	TimeInc.(Time Analytic & Shared Services Private Limited)	1	1*	-	-	1
139	Tonbo Imaging Pvt Ltd. - Embedded Systems	2	1*	-	-	2
140	Tonbo Imaging Pvt Ltd. - Image & Video Processing	1	1*	-	-	1
141	Toshiba Software (India) Pvt Ltd	1	1*	-	-	1
142	Truecaller	2	1*	-	-	2
143	Udhyam Learning Foundation	-	-	1	1*	1
144	VMware Software India Pvt. Ltd.	8	1*	3	1*	11
145	Vymo	1	1*	-	-	1
146	Walmart Global Technology Services	10	1*	-	-	10
147	Wealth India Financial Services Pvt. Ltd	-	-	3	1*	3
148	Zendrive India Pvt Ltd	3	1*	-	-	3
149	Zeotap India Pvt. Ltd.	5	1*	-	-	5

S.No	Stations	Second Semester 17 - 18 (06.01.2018-18.06.2018)		First Semester 18-19 (04.07.2018-14.12.2018)		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
150	Zinnov Management Consulting Pvt. Ltd (IT Project)	-	-	3	1	3
151	Zinnov Management Consulting Pvt. Ltd.+	3	1*	10	1*	13
152	Zynga Game Network India Pvt. Ltd.	1	1*	-	-	1
Bhopal						
153	LHD INDIA	2	1*	-	-	2
Chennai						
154	Agarwals Healthcare Limited	-	-	1	1*	1
155	Amazon Development Center	6	1	-	-	6
156	Amazon Fulfillment Center	1	1*	-	-	1
157	Apollo Tyres Ltd. Advanced Engineering centre	-	-	6	1*	6
158	Belief Systems +	-	-	1	1*	1
159	Central Leather Research Institute (CLRI) +	3	1*	7	1	10
160	Crigloo	-	-	2	1*	2
161	Ericsson Global India Pvt. Ltd.	-	-	7	1*	7
162	FreshWorks Inc	-	-	5	1	5
163	Frost & Sullivan	1	1*	-	-	1
164	HDFC Bank	1	1*	-	-	1
165	Healthcare Technology Innovation Centre (HTIC)	-	-	3	1*	3
166	Paypal	21	1	13	1	34
167	Pfizer Ltd.	4	1*	-	-	4
168	PricewaterhouseCoopers (PWC)	-	-	2	1*	2
169	Qualcomm India Pvt Ltd- Chennai	1	1*	-	-	1
170	S.R Batliboi & Associates LLP	1	1*	3	1*	4
171	UST Global- Chennai +	2	1*	6	1*	8
172	VESTAS TECHNOLOGY LTD.	5	1*	-	-	5
173	Wealth India Financial Services Pvt. Ltd.	1	1*	1	1*	2
174	India Mart	1	1*	-	-	1
Cochin						
175	UST Global - Business Domain( Cochin)	1	1	-	-	1
176	UST Global - Cochin	-	-	5	1*	5
Dahej						
177	SRF Ltd	-	-	1	1*	1
Delhi						
178	Amazon Development Center	1	1	1	1*	2
179	Bombardier	1	1*	-	-	1
180	DMI Finance Private Limited	-	-	1	1*	1
181	Ecom Express Pvt. Ltd.	-	-	3	1*	3
182	Goodera (Next Gen PMS) (Non IT)	-	-	2	1*	2
183	Jarvis Technology & Strategy Consulting Pvt Ltd	-	-	8	1	8
184	LEA Associates	8	1*	-	-	8
185	National Council of Applied Economic Research	3	1*	2	1*	5
186	National Institute of Science and Tech. Dev. Studies (NISTADS)	-	-	2	1*	2
187	PricewaterhouseCoopers (PWC)	-	-	9	1	9
188	Sattva Media and Consulting Pvt Ltd	-	-	1	1*	1
189	Vision India Foundation	1	1*	-	-	1
Gandhinagar						
190	Amrut International	-	-	1	1	1
Germany						
191	FATH GmbH Components	-	-	1	1*	1
Goa						
192	Anant Infomedia Pvt. Ltd.	-	-	4	1	4
193	IFB Industries	3	1	-	-	3
194	IFB Home Appliances Division	3	1*	-	-	3
Greater noida						
195	Mahle Behr	-	-	3	1*	3

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		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
Gurgaon						
196	American Express India-Risk Information Management-Capabilities(RIM-C)	2	1*	2	1*	4
197	Decision Resources Group	3	1*	-	-	3
198	Ericsson Global India Pvt. Ltd.	-	-	3	1*	3
199	Ernst & Young (Advisory Services)	2	1*	2		4
200	IMS Health	7	1*	-	-	7
201	Kinapse Ltd	2	1*	-	-	2
202	Nykaa	-	-	3	1*	3
203	OYO Tech	-	-	4	1*	4
204	Pluss Advanced Technologies Pvt. Ltd.	0		1	1*	1
205	PricewaterhouseCoopers (PWC)	4	1*	-	-	4
206	Rivigo Tech	4	1*	3	1*	7
207	Skoda Auto India Pvt. Ltd.	-	-	1	1*	1
208	SRF Ltd.	2	1*	4	1*	6
209	United Airlines Business Services Pvt. Ltd.	2	1*	2	1*	4
210	Urban Clap	3	1*	-	-	3
211	Zinnov Management Consulting Pvt. Ltd.	-	-	4	1*	4
Halol						
212	Aditya Birla Insulators	6	1	5	1*	11
Haridwar						
213	SKF	1	1*	-	-	1
Hyderabad						
214	Alexa Apps +	2	1	-	-	2
215	Amazon Business Intelligence	3	1	1	1*	4
216	Amazon Development Center	11	1*	9	1	20
217	Amazon Fulfillment Center	1	1*	-	-	1
218	Apple India Pvt. Limited	-	-	6	1*	6
219	Bombardier Transportation	3	1*	-	-	3
220	Centre for DNA Fingerprinting and Diagnostics	3	1*	-	-	3
221	DataM Intelligene 4Market research	-	-	5	1*	5
222	Deloitte Consulting US India	6	1	-	-	6
223	Dr. Reddys Laboratories	5	1*	-	-	5
224	Dream Vu	2	1*	1	1	3
225	Egnify Technologies	-	-	1	1*	1
226	FTD India Private Limited	-	-	1	1*	1
227	GGK Technologies - Mobile Services	6	1*	30	1	36
228	iBÂ Hubs	3	1*	-	-	3
229	IMI Connect Product Development	2	1	4	1*	6
230	IMI Mobile Data Analytics	2	1*	-	-	2
231	IMI Mobile R&D	2	1*	7	1	9
232	JDA Software Solutions	5	1*	9	1*	14
233	JPMC - Technology	-	-	5	1*	5
234	Market Data Forecast (Research Associate)	6	1*	-	-	6
235	Microsoft India Development Center	6	1*	-	-	6
236	Mytrah Energy (India) Private Limited +	1	1*	2	1*	3
237	Next Education India Pvt. Ltd.	2	1*	-	-	2
238	Novartis	-	-	2	1*	2
239	Nvidia Graphics - Hardware	2	1	-	-	2
240	Nvidia Graphics - Software	2	1*	1	1*	3
241	Oracle India Pvt Ltd.	-	-	7	1*	7
242	OYO Tech	-	-	5	1*	5
243	Perceptive Analytics	3	1*	-	-	3
244	PricewaterhouseCoopers (PWC)	2	1*	5	1*	7
245	Qualcomm India Pvt Ltd- Bangalore	9	1*	-	-	9
246	RBJ Technologies Pvt Ltd	-	-	4	1*	4
247	ReportGarden Technologies Pvt. LTd.	7	1	12	1	19

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		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
248	Servicenow Software Development India	4	1*	-	-	4
249	Synergiz Global	2	1*	3	1*	5
250	Synopsys India Pvt. Ltd.	1	1*	2	1*	3
251	Tau Films India Pvt. Ltd	1	1*	-	-	1
252	UBS Business Solutions (India) Private Limited - Group Operations	-	-	2	1*	2
253	Vasant Chemicals and Organics Ltd. +	-	-	2	1	2
254	Worley Parsons India	-	-	2	1*	2
255	Xilinx India Technology Services Pvt. Ltd.	3	1*	6	1	9
Jaipur						
256	CEG Limited	4	1	-	-	4
257	NBC Bearings	1	1*	-	-	1
Jamshedpur						
258	Tata Motors Ltd.	2	1*	-	-	2
Jodalli						
259	Spicer India Ltd.	1	1*	-	-	1
Kolkata						
260	LEA Associates	1	1*	-	-	1
261	PriceWaterHouseCoopers	1	1*	-	-	1
262	Texmaco Rail & Engineering Ltd.	-	-	2	1	2
Lucknow						
263	Tata Motors Ltd.	-	-	3	1*	3
Mumbai						
264	Aditya Birla Science & Technology Company Ltd.	3	1	4	1*	7
265	Baldor Technologies Pvt Ltd	2	1	4	1*	6
266	Breakthrough Management Group India Pvt Ltd	-	-	2	1*	2
267	Bundl Technologies Private Limited (Swiggy)	1	1*	-	-	1
268	Century Rayon +	2	1*	2	1	4
269	Credit Suisse - Credit Analytics	5	1	5	1	10
270	Credit Suisse - Enterprise Operational Risk Management	-	-	1	1*	1
271	Credit Suisse - Finance Change	-	-	1	1*	1
272	Credit Suisse - Global Markets Controls COO	2	1*	5	1*	7
273	Credit Suisse - International Wealth Management	3	1*	-	-	3
274	Credit Suisse - Market Risk Quant	5	1*	4	1*	9
275	Credit Suisse - MLR Non-quant	2	1*	3	1*	5
276	Credit Suisse - Model Risk Management	2	1*	4	1*	6
277	Credit Suisse - Prime Services	3	1*	3	1*	6
278	Credit Suisse - Risk & Finance Data Analytics, Reporting	-	-	3	1*	3
279	Credit Suisse - Stress Testing	-	-	1	1*	1
280	DBOI - Credit Risk	-	-	7	1*	7
281	DBOI - MLRM, Risk Methodology & NFRM	-	-	6	1	6
282	DBOI - Trading Risk & PL	-	-	5	1*	5
283	DBOI (Deutsche Bank) - Operations	17	1	-	-	17
284	Development Consultants Pvt. Ltd. (DCPL)	2	1*	2	1*	4
285	Edelweiss Financial Services	1	1	2	1*	3
286	Edelweiss General Insurance	-	-	2	1*	2
287	Exponentia data	-	-	5	1	5
288	Geometric Limited	1	1*	-	-	1
289	Goodera - (Next Gen) (Non IT)	-	-	2	1*	2
290	Grasim Industries, Pulp and Fibre Division	1	1*	2	1*	3
291	HDFC Bank	1	1*	-	-	1
292	Here Maps - Data Structures	2	1*	-	-	2
293	Here Maps - Distributed Data	1	1*	10	1*	11
294	Hindalco Innovation Centre - Semifab, Taloja	3	1	1	1	4
295	Hourglass Research	3	1*	2	1*	5

S.No	Stations	Second Semester 17 - 18 (06.01.2018-18.06.2018)		First Semester 18-19 (04.07.2018-14.12.2018)		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
296	J P Morgan Services - Quant	10	1*	5	1*	15
297	J P Morgan Services -Centralized Research Group(CRG)	6	1*	10	1*	16
298	J P Morgan Services- Global Markets Group(GMG) - (Markets +Risk)	4	1*	8	1*	12
299	J P Morgan services- Global research Centre(GRC)	8	1*	12	1*	20
300	Jarvis Technology and Strategy Consulting Pvt. Ltd.	-	-	7	1*	7
301	JPMC - Technology	-	-	5	1*	5
302	JPMC CIB Operations	10	1*	12	1*	22
303	Morningstar	5	1*	5	1*	10
304	MSCI (Global Implementation Services)	1	1*	1	1*	2
305	MSCI (IMR)	2	1*	2	1*	4
306	MSCI (NPD â€™ Index Research)	2	1*	1	1*	3
307	MSCI Financial Planning & Analysis	1	1*	-	-	1
308	Multi Commodity Exchange of India Ltd.	-	-	2	1*	2
309	My POS Technologies Pvt. Ltd.	-	-	2	1*	2
310	Nomura - FinTech	2	1*	3	1*	5
311	Nomura - Wholesale Strategy	1	1*	-	-	1
312	Nomura Global Finance	1	1*	3	1*	4
313	Nomura Global Markets	4	1*	3	1*	7
314	Nomura Global Risk	11	1*	6	1*	17
315	PaySense	-	-	2	1*	2
316	Piramal Group	2	1*	4	1*	6
317	PricewaterhouseCoopers (PWC)	1	1*	3	1*	4
318	QUANTIPHI	-	-	6	1*	6
319	Reliance Jio	-	-	4	1*	4
320	Samhita Social Ventures	-	-	1	1*	1
321	Skoda Auto India Pvt. Ltd.	5	1*	7	1	12
322	Thornton Tomasetti	2	1*	-	-	2
323	UBS Business Solutions (India) Private Limited - GRC	-	-	5	1*	5
324	UBS Business Solutions (India) Private Limited - Group Operations	-	-	4	1*	4
325	UBS Business Solutions (India) Pvt. Ltd. - IMT	-	-	1	1*	1
326	UltraTech Cement Limited (Ahura Centre)	-	-	5	1	5
327	UPGRAD	7	1*	4	1*	11
328	Viacom18 Media Pvt. Ltd - Corporate Strategy	2	1*	2	1*	4
329	Viacom18 Media Pvt. Ltd - Digital Ventures	5	1*	5	1*	10
330	VMS (Vakil Mehta Seth) Consultants Private Limited	2	1*	2	1*	4
331	Worley Parsons India	-	-	2	1*	2
332	Amazon Fulfillment Center	2	1	-	-	2
Nagda						
333	Grasim Industries Ltd. +	3	1	5	1*	8
Nagpur						
334	Techtute Structures Pvt Ltd.	4	1*	2	1	6
Navi Mumbai						
335	GEP	-	-	4	1	4
Neemrana						
336	Hero MotoCorp Ltd	-	-	2	1*	2
New Delhi						
337	Investopad	-	-	2	1*	2
Noida						
338	Adobe Systems	3	1	4	1*	7
339	ARM Embedded Technologies Private Limited	-	-	2	1	2



S.No	Stations	Second Semester 17 - 18 (06.01.2018-18.06.2018)		First Semester 18-19 (04.07.2018-14.12.2018)		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
340	Indiamart Intermesh Ltd.	1	1*	-	-	1
341	Mentor Graphics	3	1	3	1*	6
342	Nucleus Software Export Ltd	7	1*	16	1	23
Pantnagar						
343	Tata Motors Ltd.	-	-	1	1*	1
Pilani						
344	Central Electronics Engineering Research Institute +	3	1	1	1	4
Pune						
345	A.T.E. Enterprises Private Limited	1	1	-	-	1
346	AFour Technologies	-	-	2	1	2
347	B.G.Shirke Construction Technology Pvt. Ltd.	1	1	2	1*	3
348	Bajaj Auto	2	1*	-	-	2
349	Bharat Forge Ltd +	3	1	4	1	7
350	Cadence Design Systems India Pvt Ltd. - Processor Design	2	1	-	-	2
351	Century Enka Ltd.	-	-	3	1*	3
352	Credit Suisse - Product Control	4	1*	2	1*	6
353	Credit Suisse - Risk & Finance Data Analytics, Reporting	-	-	3	1*	3
354	Credit Suisse - Technology	1	1*	-	-	1
355	Credit Suisse- Finance Change	2	1*	-	-	2
356	Divgi TorqTransfer Systems Pvt. Ltd, Shivare	1	1*	2	1	3
357	Divgi TorqTransfer Systems Pvt. Ltd. - Bhosari	2	1*	1	1*	3
358	Ecozen Solutions (P) Ltd.	2	1*	2	1*	4
359	Geometric Limited	1	1*	-	-	1
360	HCL Technologies	-	-	1	1*	1
361	IBM India Software Group	-	-	5	1*	5
362	IDeaS - SAS - Analytics	2	1*	-	-	2
363	IDeaS - SAS - Software Development	3	1	5	1*	8
364	Knorr-Bremse Technology Center India Private Limited	-	-	1	1	1
365	Mahle Behr	1	1	4	1	5
366	Minda Corporation +	-	-	3	1	3
367	National Chemical Laboratory	2	1*	1	1*	3
368	Nvidia Graphics - Hardware	1	1*	-	-	1
369	Nvidia Graphics - Software Systems	1	1*	7	1*	8
370	Propeluss	2	1*	-	-	2
371	Reflexis Systems India Pvt Ltd.	13	1*	16	1	29
372	Skoda Auto India Pvt. Ltd. (Chakan)	1	1*	-	-	1
373	Sokrati Technologies Pvt. Ltd.	4	1*	-	-	4
374	Spicer India Ltd.	1	1*	5	1*	6
375	Symantec Software Solutions Pvt. Ltd - Data Analytics	3	1*	-	-	3
376	Symantec Software Solutions Pvt. Ltd. - Data Structures and Algorithms	6	1*	3	1*	9
377	Tata Autocomp Systems Ltd.	3	1*	2	1*	5
378	Tata Chemical Innovation Center	2	1*	4	1*	6
379	Tata Motors Ltd. +	-	-	11	1*	11
380	UBS	4	1*	-	-	4
381	UBS Business Solutions (India) Private Limited - Group Operations	-	-	1	1*	1
382	UBS Business Solutions (India) Private Limited - IMT	-	-	3	1*	3
383	UBS Business Solutions (India) Private Limited - RAS FINANCE	-	-	7	1*	7
384	Veritas Software Technologies India	1	1*	-	-	1

S.No	Stations	Second Semester 17 - 18 (06.01.2018-18.06.2018)		First Semester 18 -19 (04.07.2018-14.12.2018)		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
Thiru vananthapuram						
385	Law Pundits	-	-	2	1*	2
386	UST Global Infinity labs- Cyber security	1	1*	-	-	1
387	UST Global Infinity lAbs- Machine learning	6	1*	-	-	6
388	USt Global Infinity Labs-Block Chain	4	1*	-	-	4
389	USt Global Infinity labs-Internet of Things	2	1*	-	-	2
390	UST Global Infinity Labs-Robotics	4	1*	-	-	4
391	UST Global- Infinity Research- 3D printing	1	1*	-	-	1
392	UST Global Infinity-Cloud Computing	2	1*	-	-	2
393	UST Global- Trivandrum+	-	-	28	1	28
394	UST Global-Infinity lab-Artificial Intelligence	7	1*	-	-	7
395	UST Global-Infinity Labs- Augmented Reality	8	1*	-	-	8
Udaipur						
396	munshiG Pvt Ltd	-	-	5	1	5
Visakhapatnam						
397	Dr Reddys Laboratories	3	1*	-	-	3
Total		1048	55	1204	56	2252

+Stations hosting PS-I also

\*Faculty looking after more than one PS-II Station

## PRACTICE SCHOOL GROWTH STATISTICS

## PRACTICE SCHOOL-I

Session	No. of students who attended PS -I	No. of faculty who supervised PS -I	No. of PS -I stations
Summer 1973	15	04	01
Summer 1974	89	17	09
Summer 1975	244	26	14
Summer 1976	355	33	28
Summer 1977	349	32	38
Summer 1978	335	35	38
Summer 1979	474	45	53
Summer 1980	397	34	42
Summer 1981	372	33	36
Summer 1982	462	39	44
Summer 1983	476	43	49
Summer 1984	491	40	52
Summer 1985	514	42	52
Summer 1986	507	38	49
Summer 1987	497	35	49
Summer 1988	552	42	59
Summer 1989	574	42	58
Summer 1990	572	46	63
Summer 1991	530	43	62
Summer 1992	625	53	78
Summer 1993	648	56	87
Summer 1994	612	55	81
Summer 1995	607	54	80
Summer 1996	648	54	89
Summer 1997	628	53	86
Summer 1998	638	53	87
Summer 1999	568	42	73
Summer 2000	656	52	85
Summer 2001	770	52	100
Summer 2002	807	52	98
Summer 2003	861	60	115
Summer 2004	861	57	95
Summer 2005	840	54	83
Summer 2006	1376	68	129
Summer 2007	1340	79	138
Summer 2008	1399	72	133
Summer 2009	1355	68	121
Summer 2010	1926	95	204
Summer 2011	2065	107	203
Summer 2012	2036	105	183
Summer 2013	2081	74	178
Summer 2014	2038	93	170
Summer 2015	2096	107	182
Summer 2016	2184	100	182
Summer 2017	2192	111	197
Summer 2018	2119	103	205

PRACTICE SCHOOL-II FOR INTEGRATED FIRST DEGREE

Semesters	No. of students who attended PS -II	No. of faculty who supervised PS -II	No. of PS-II stations
Second Sem. 72-73	10	04	01
First Sem. 73-74	12	04	01
Second Sem. 73-74	12	08	01
First Sem.74-75	36	05	06
Second Sem. 74-75	56	15	09
First Sem.75-76	31	06	05
Second Sem. 75-76	75	12	15
First Sem.76-77	121	18	15
Second Sem. 76-77	110	21	18
First Sem.77-78	151	16	16
Second Sem. 77-78	159	19	20
First Sem.78-79	166	23	20
Second Sem. 78-79	171	23	26
First Sem. 79-80	159	25	23
Second Sem. 79-80	153	25	22
First Sem.80-81	183	27	25
Second Sem. 80-81	195	26	28
First Sem.81-82	181	28	30
Second Sem. 81-82	184	27	31
First Sem.82-83	208	26	32
Second Sem. 82-83	212	23	34
First Sem.83-84	213	30	31
Second Sem. 83-84	200	23	35
First Sem.84-85	217	30	34
Second Sem. 84-85	213	37	41
First Sem. 85-86	239	33	41
Second Sem. 85-86	231	34	46
First Sem.86-87	248	36	47
Second Sem. 86-87	249	40	45
First Sem.87-88	231	40	48
Second Sem. 87-88	232	36	46
First Sem.88-89	274	39	51
Second Sem. 88-89	269	30	51
First Sem.89-90	275	31	49
Second Sem. 89-90	272	32	49
First Sem.90-91	272	30	49
Second Sem. 90-91	274	29	57
First Sem. 91-92	306	32	62
Second Sem. 91-92	297	36	66
First Sem.92-93	297	38	68
Second Sem. 92-93	281	34	69
First Sem.93-94	311	36	69
Second Sem. 93-94	314	38	79
First Sem.94-95	335	36	80
Second Sem. 94-95	344	35	79
First Sem.95-96	330	43	84
Second Sem. 95-96	323	40	91
First Sem.96-97	321	42	92
Second Sem. 96-97	323	43	89
First Sem.97-98	320	42	86

Semesters	No. of students who attended PS -II	No. of faculty who supervised PS -II	No. of PS -II stations
Second Sem. 97-98	330	42	87
First Sem.98-99	317	36	82
Second Sem. 98-99	327	37	89
First Sem. 1999-2000	324	42	84
Second Sem. 1999-2000	335	42	91
First Sem. 2000-2001	347	43	85
Second Sem. 2000-2001	336	44	93
First Sem. 2001-2002	330	43	88
Second Sem. 2001-2002	349	36	84
First Sem. 2002-2003	400	40	99
Second Sem. 2002-2003	406	43	93
First Sem. 2003-2004	427	42	88
Second Sem. 2003-2004	426	43	88
First Sem. 2004-2005	456	44	94
Second Sem. 2004-2005	459	46	101
First Sem. 2005-2006	499	53	110
Second Sem. 2005-2006	470	48	113
First Sem. 2006-2007	458	46	103
Second Sem. 2006-2007	570	53	128
First Sem. 2007-2008	708	53	153
Second Sem. 2007-2008	763	54	165
First Sem. 2008-2009	864	54	174
Second Sem. 2008-2009	730	61	193
First Sem. 2009-2010	862	62	194
Second Sem. 2009-2010	871	66	229
First Sem. 2010-2011	897	62	219
Second Sem. 2010-2011	874	69	261
First Sem. 2011-2012	1085	72	259
Second Sem. 2011-2012	1087	63	273
First Sem. 2012-2013	1190	64	256
Second Sem 2012-2013	1147	63	263
First Sem 2013-2014	1127	60	246
Second Sem 2013-2014	1128	49	244
First Sem 2014-2015	1138	48	221
Second Sem 2014-2015	1107	45	208
First Sem 2015-2016	1078	46	179
Second Sem 2015-2016	760	51	172
First Sem 2016-2017	1070	57	162
Second Sem 2016-2017	812	57	168
First Sem 2017-2018	1174	57	226
Second Sem 2017-2018	787	54	218
First Sem. 2018-2019	1204	56	259

PRACTICE SCHOOL FOR HIGHER DEGREE

Semesters	No. of students who attended PS	No. of faculty who supervised PS	No. of PS stations where Higher Degree students were also sent
Second Sem. 91-92	18	09	12
First Sem.92-93	39	19	20
Second Sem. 92-93	41	19	21
First Sem.93-94	35	16	17
Second Sem. 93-94	41	11	15
First Sem.94-95	43	18	22
Second Sem. 94-95	45	17	17
First Sem.95-96	53	29	36
Second Sem. 95-96	52	27	35
First Sem.96-97	60	25	36
Second Sem. 96-97	55	25	33
First Sem.97-98	45	21	28
Second Sem. 97-98	56	22	29
First Sem.98-99	38	20	28
Second Sem. 98-99	46	19	24
First Sem. 1999-2000	62	26	34
Second Sem. 1999-2000	63	26	33
First Sem. 2000-2001	39	23	27
Second Sem. 2000-2001	50	26	36
First Sem. 2001-2002	85	23	27
Second Sem. 2001-2002	100	27	39
First Sem. 2002-2003	69	25	35
Second Sem. 2002-2003	46	20	22
First Sem. 2003-2004	02	02	02
Second Sem. 2003-2004	59	22	27
First Sem. 2004-2005	43	11	16
Second Sem. 2004-2005	88	20	32
First Sem. 2005-2006	46	16	19
Second Sem. 2005-2006	95	22	31
First Sem. 2006-2007	50	18	24
Second Sem. 2006-2007	111	30	47
First Sem. 2007-2008	55	23	31
Second Sem. 2007-2008	129	41	67
First Sem. 2008-2009	63	35	53
Second Sem. 2008-2009	174	48	84
First Sem. 2009-2010	38	18	21
Second Sem. 2009-2010	146	40	78
First Sem. 2010-2011	63	29	41
Second Sem. 2010-2011	181	42	96
First Sem. 2011-2012	78	29	44
Second Sem. 2011-2012	230	40	105
First Sem. 2012-2013	72	22	34
Second Sem 2012-2013	217	16	75
First Sem 2013-2014	2	4	2
Second Sem 2013-2014	217	35	88
First Sem 2014-2015	0	0	0
Second Sem 2014-2015	32	12	14
First Sem 2015-2016	2	1	1
Second Sem 2015-2016	239	43	85
First Sem 2016-2017	0	0	0
Second Sem 2016-2017	284	45	88
First Sem 2017-2018	0	0	0
Second Sem 2017-2018	261	41	104
First Sem. 2018-2019	0	0	0

+ It may be noted that the faculty members and PS stations indicated in this table are common to that of integrated First Degree PS-II Programme and thus numbers shown under the columns 3 and 4 are subsets of the respective columns of table "PRACTICE SCHOOL - II FOR INTEGRATED FIRST DEGREE" given above.

## FACILITIES AVAILABLE AT PS -II STATIONS DURING THE YEAR 2018

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
Aurangabad				
1	Bajaj Auto	20000	No	No
2	Skoda Auto India Pvt. Ltd.	14000	No	No
Bangalore				
3	A.T.E. Enterprises Private Limited, Research & Development	20000	No	No
4	Acko General Insurance Ltd.	10000	No	No
5	Aditya Auto products & Engg (I) .P.Ltd.	20000	Acco. for boys only	Free Breakfast & Lunch
6	Aditya Birla Group -Data and Analytics	30000	No	-
7	Adobe Systems	50000	Yes	Free Lunch, First class to and fro train fare from hometown to internship location
8	Altair Engineering India Pvt. Ltd. - Software Division	21500	No	Subsidised Canteen Facilities
9	Altisource Business Solutions	35000	No	No
10	Amazon Development Center	30000	No	Company bus
11	Amazon Fulfillment Center	40000	No	No
12	American Express - Big Data Labs (BDL)	100000	No	No
13	American Express - Risk Information Management Capabilities (RIM- C)	30000	No	No
14	American Express India	100000	No	No
15	Analog Devices - Design and Simulation	25000	No	No
16	Analog Devices - Design Verification	25000	No	No
17	Analog Devices India Pvt Ltd -Quality management	25000	No	No
18	Analog Devices India Pvt. Ltd.	25000	No	No
19	ARM Embedded Technologies Private Limited	28000	No	Subsidized Canteen Facilities, First Class Rail Fare, Company bus
20	Auquan	35000	No	No
21	Bank of Hodlers	20000	No	No
22	Beckman Coulter (formerly ReaMetrix India P Ltd)	15000	No	No
23	belong.co	20000	No	No
24	Blue Jeans Network India Pvt. Ltd.	50000	No	Subsidized Canteen Facilities, Reimbursement of Cheapest Mode, Reimbursement for Volvo Bus Pass Economy, flight tickets to and from home town to Bangalore
25	Bosch Research and Technology center	30000	No	No
26	Bundl Technologies Private Limited (Swiggy)	40000	No	No
27	Cadence Design Systems India Pvt Ltd. - CAD Software	18000	No	No

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
28	Capillary Technologies - Testing Automation	40000	No	No
29	Centre for Artificial Intelligence & Robotics	0	No	BITS provides Rs. 12000 scholarship to the students having 7 CGPA and above.
30	Cisco Systems (India) Pvt. Ltd - Software Engineering	44000	No	No
31	Cloudcherry Analytics Pvt Ltd	30000	No	No
32	Cohesity Storage Solutions India Pvt. Ltd.	90000	No	Subsidized Lunch, Air Fare, Initial 7 days accommodation
33	Cypress Semiconductor India Pvt Ltd.	25000	No	No
34	Decision Resources Group	25000	No	No
35	Dell R&D	25000	No	No
36	Deloitte Consulting US India	25000	No	No
37	EMC	25000	No	No
38	EnSci - A Unit of Weir Minerals India Pvt. Ltd.	20000	No	No
39	Ericsson Global India Pvt. Ltd.	35000	No	No
40	Ernst & Young Global Delivery Services	25000	No	No
41	Fidelity Investments	50000	Yes	INR 15,000 one time travel allowance
42	Flipkart Analytics	50000	No	No
43	Flipkart Internet Services Pvt. Ltd	50000	No	No
44	Frost & Sullivan India Pvt. Ltd.	18000	No	No
45	Genpact	18000	No	No
46	Goldman Sachs - IT	25000	No	No
47	Goldman Sachs India Pvt. Ltd. - Operations	35000	No	No
48	Goodera (NextGen PMS Pvt. Ltd)- Non IT	40000	No	
49	Goodera (NextGen PMS) - IT	65000	No	No
50	Groww	42000	No	Very High Chances of PPO
51	HAPPAY (VA Tech Ventures Pvt Ltd.)	40000	No	Subsidised Canteen Facilities
52	HCL Technologies	18000	No	No
53	HealthCubed	15000	No	No
54	Here Maps	30000	No	No
55	Hindustan Unilever Research Centre	20000	No	No
56	Holiday IQ- Tech	20000	No	No
57	Hortonworks Data Platform India Pvt. Ltd.	45000	No	No
58	HSBC Electronic Data Processing India Pvt. Ltd.	40000	No	Two way ticket & 14 days accommodation apart from the stipend
59	IBM India Software Group	30000	No	No
60	IBM Security - Fiberlink	30000	No	No
61	IMS Health	16500	No	No
62	Infinera	35000	No	No
63	Ingersoll Rand India Ltd	15000	No	No
64	InMobi - Global Outreach	25000	No	No
65	InMobi - Market, Sales Delivery	25000	No	No
66	InMobi - Software Development	35000	No	Free Breakfast, Lunch & Dinner



S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
67	InMobi - Supply Chain	25000	No	No
68	InMobi- Business Development	25000	No	Free Breakfast, Lunch & Dinner
69	Intel - Computer and VLSI Architecture	22000	No	Subsidised Lunch & Breakfast, Free Air Fare,
70	Intel - Embedded Software	22000	No	No
71	Intel - GPU and VLSI Design	22000	No	Subsidised Lunch & Breakfast, Free Air Fare,
72	Intel - Testing & Verification	22000	No	Subsidised Lunch & Breakfast, Free Air Fare,
73	JDA Software Solutions	25000	No	No
74	John F Welch Technology Center (GE)	25000	No	No
75	JP Morgan Chase - Technology	35500	No	Subsidised Canteen Facilities, Company bus
76	JPMC CIB Operations	35000	No	Subsidised Canteen Facilities
77	Kristal.AI	40000	No	No
78	Kubric.io	25000	No	No
79	Lavelle Networks	30000	No	No
80	Lowes India	25000	No	No
81	MathWorks India Private Limited	35000	No	No
82	Media Iq Digital	35000	No	Free Breakfast & Lunch,
83	MediaTek Bangalore Pvt. Ltd.	33000	No	No
84	Mercedes Benz	25000	No	Breakfast and Lunch available at Rs.100 per month (Deducted from stipend)
85	Microsoft india Development center	45000	No	No
86	MoEngage India Pvt. Ltd.	50000	No	No
87	National Aerospace Laboratories	0	No	BITS provides Rs. 12000 scholarship to the students having 7 CGPA and above.
88	National Centre for Biological Sciences	0	No	BITS provides Rs. 12000 scholarship to the students having 7 CGPA and above.
89	National Entrepreneurship Network	15000	No	No
90	National Instruments Systems (India) Pvt. Ltd.	30000	No	No
91	NetApp	35000	No	No
92	NetSkope Software India Pvt. Ltd.	40000	No	Subsidized Breakfast, Lunch & Dinner
93	Nutanix Technologies India Pvt Ltd - Data Science	90000	No	No
94	Nutanix Technologies India Pvt Ltd - MTS	90000	No	Free food
95	Nutanix Technologies India Pvt. Ltd.	90000	No	No
96	Nvidia Graphics - Hardware	35000	No	Free Lunch & Subsidized Breakfast, Air Fare will be reimbursed to and fro
97	Nvidia Graphics -Software	35000	No	Free Lunch & Subsidized Breakfast, Air Fare will be reimbursed to and fro
98	Oracle India Pvt Ltd.	35000	Yes	Subsidized Food

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
99	PAYPAL	50000	No	Subsidized Canteen Facilities , Company bus,
100	Petasense - Embedded Software	40000	No	No
101	Petasense - Machine Learning	40000	No	No
102	Petasense - Services & App Development	40000	No	No.
103	Postman	40000	No	No
104	PricewaterhouseCoopers (PWC)	40000	No	No
105	Qualcomm India Pvt Ltd- Bangalore	30000	No	No
106	Qubole	85000	No	No
107	Rakuten- Artificial Intelligence	40000	No	No
108	Rakuten Inc	40000	No	No
109	Rakuten-Human resources& operations and recruitment	40000	No	No
110	Rakuten-Mobile App	40000	No	No
111	Reliance Jio	35000	No	No
112	Robert Bosch Center for Cyber Physical Systems	10000	No	No
113	Robert Bosch Engineering & Business Solutions Private Limited	10000	No	No
114	S.R Batliboi & Associates LLP	21000	No	Subsidized Lunch
115	Samsung R &D Institute - CP (Communication Protocol)	35000	No	No
116	Samsung R &D Institute - Image & Video Processing	35000	No	Onward and Return Economy airfare over and above 500 kms from Bangalore, 1st class A/C train fare up to 500 kms of distance from Bangalore. First week Eligible to use company transport (to and from the company - Charges 800 per month ) and cafeteria- free of cost,
117	Samsung R &D Institute - Intelligent Services	35000	No	Onward and Return Economy airfare over and above 500 kms from Bangalore OR 1st class A/C train fare up to 500 kms of distance from Bangalore. First week Eligible to use company transport (to and from the company - Charges 800 per month ) and cafeteria- free of cost,
118	Samsung R &D Institute - Networks	35000	No	Free Canteen Facility, , , Stipend: INR 35,000 per month & Onward and Return Economy airfare over and above 500 kms from Bangalore OR 1st class A/C train fare up to 500 kms of distance from Bangalore - First week Eligible to use company transport (to and from

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
				the company - Charges 800 per month ) and cafeteria- free of cost,
119	Samsung Semiconductor India R&D Center	35000	No	Free Lunch, We would provide flight tickets if the distance is above 500kms, if the distance is less than 500kms we would reimburse train / bus tickets. We would be providing them with first 7 days of accommodation. Canteen facility will be provided to the students.
120	SanDisk	35000	No	No
121	Sattva Media & Consulting Pvt Ltd	18000	No	Lunch and Tea Free
122	Shell Technology Center	20000	No	No
123	SKF India Ltd.	6000	No	Free Canteen Facility, III AC Train Fare on one side
124	STAR TV	65000	No	No
125	StateStreet Global Advisors	40000	No	No
126	Sun Mobility	15000	No	Free Canteen Facility
127	Supply Basics - Business	15000	No	No
128	SupplyBasics - E-Commerce	25000	No	No
129	TapChief +	10000	No	No
130	Tejas Networks	25000	No	No
131	TESCO Hindustan Service Centre	30000	No	Subsidised Canteen Facilities
132	Texas Instruments (I) Pvt. Ltd - Systems	40000	No	No
133	Texas Instruments (I) Pvt. Ltd. -Analog	40000	No	canteen facilities, provide Rs.850/month as cafeteria allowance Cash in Lieu of accommodation of INR 10000 Onetime payment of INR 15000 towards travel
134	Texas Instruments (I) Pvt. Ltd. -Digital	40000	No	canteen facilities, provide Rs.850/month as cafeteria allowance Cash in Lieu of accommodation of INR 10000 Onetime payment of INR 15000 towards travel
135	Thinkerbell Labs - Electronics	25000	No	No
136	Thinkerbell Labs - People Operations	22500	No	No
137	Thorogood	25000	No	Subsidized Lunch
138	TimeInc.(Time Analytic & Shared Services Private Limited)	15500	No	No
139	Tonbo Imaging Pvt Ltd. - Embedded Systems	28000	No	No
140	Tonbo Imaging Pvt Ltd. - Image & Video Processing	28000	No	No

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
141	Toshiba Software (India) Pvt Ltd	25000	No	No
142	Truecaller	40000	No	No
143	Udhyam Learning Foundation	20000	No	No
144	VMware Software India Pvt. Ltd.	35000	Yes	Subsidized Breakfast, Lunch & Dinner, Initial
145	Vymo	30000	No	No
146	Walmart Global Technology Services	30000	No	No
147	Wealth India Financial Services Pvt. Ltd	30000	No	No
148	Zendrive India Pvt Ltd	40000	No	No
149	Zeotap India Pvt. Ltd.	45000	No	No
150	Zinnov Management Consulting Pvt. Ltd (IT Project)	30000	No	Subsidized Canteen Facilities
151	Zinnov Management Consulting Pvt. Ltd.+	15000	No	No
152	Zynga Game Network India Pvt. Ltd.	35000	No	No
Bhopal				
153	LHD INDIA	25000	No	No
Chennai				
154	Agarwals Healthcare Limited	25000	No	No
155	Amazon Development Center	30000	No	Company bus
156	Amazon Fulfillment Center	40000	No	No
157	Apollo Tyres Ltd. Advanced Engineering centre	25000	No	No
158	Belief Systems +	12000	No	No
159	Central Leather Research Institute (CLRI) +	0	No	BITS provides Rs. 12000 scholarship to the students having 7 CGPA and above.
160	Crigloo	30000	No	No
161	Ericsson Global India Pvt. Ltd.	35000	No	No
162	FreshWorks Inc	25000	Acco. for boys only	Subsidized Canteen Facilities
163	Frost & Sullivan	18000	No	No
164	HDFC Bank	20000	No	No
165	Healthcare Technology Innovation Centre (HTIC)	10000	Acco. for boys only	Subsidized Canteen Facilities
166	Paypal	50000	No	Subsidized Canteen Facilities, Company bus,
167	Pfizer Ltd.	12500	No	No
168	PricewaterhouseCoopers (PWC)	40000	No	No
169	Qualcomm India Pvt Ltd	30000	No	No
170	S.R Batliboi & Associates LLP	21000	No	Subsidised Lunch
171	UST Global +	10000	No	No
172	Vestas Technology Ltd.	30000	No	No
173	Wealth India Financial Services Pvt. Ltd.	30000	No	No
174	India Mart	20000	No	No
Cochin				
175	UST Global - Business Domain	20000	No	No
176	UST Global - Cochin	20000	No	No
Dahej				
177	SRF Ltd	18000	No	No
Delhi				
178	Amazon Development Center	30000	No	Company bus

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
179	Bombardier	20000	No	No
180	DMI Finance Private Limited	20000	No	No
181	Ecom Express Pvt. Ltd.	30000	No	No
182	Goodera (Next Gen PMS) (Non IT)	40000	No	Subsidized Canteen Facilities @ Rs. 600 p.m,
183	Jarvis Technology & Strategy Consulting Pvt Ltd	30000	No	No
184	LEA Associates	10000	No	No
185	National Council of Applied Economic Research	6500	No	BITS provides Rs. 5500 scholarship to the students having 7 CGPA and above.
186	National Institute of Science and Tech. Dev. Studies (NISTADS)	3000	No	BITS provides Rs. 9000 scholarship to the students having 7 CGPA and above.
187	PricewaterhouseCoopers (PWC)	40000	No	No
188	Sattva Media and Consulting Pvt Ltd	20000	No	No
189	Vision India Foundation	10000	No	No
Gandhinagar				
190	Amrut International	8000	No	No
Germany				
191	FATH GmbH Components	1150(Euro)	No	No
Goa				
192	Anant Infomedia Pvt. Ltd.	25000	No	No
193	IFB Industries	15000	No	No
194	IFB Home Appliances Division	15000	No	No
Greater Noida				
195	Mahle Behr	8000	No	No
Gurgaon				
196	American Express India-Risk Information Management-Capabilities(RIM-C)	30000	Accommodation for initial 7 days	Subsidized Breakfast, Lunch & Dinner, will book To and fro air tickets for interns
197	Decision Resources Group	25000	No	No
198	Ericsson Global India Pvt. Ltd.	35000	No	No
199	Ernst & Young (Advisory Services)	15100	No	No
200	IMS Health	16500	No	No
201	Kinapse Ltd	10000	No	No
202	Nykaa	40000	No	No
203	OYO Tech	45000	Acco. Initially 1 week	No
204	Pluss Advanced Technologies Pvt. Ltd.	12000	No	No
205	PricewaterhouseCoopers (PWC)	40000	No	No
206	Rivigo Tech	70000	No	Subsidised Lunch
207	Skoda Auto India Pvt. Ltd.	14000	No	No
208	SRF Ltd.	18000	No	Subsidised Lunch & Breakfast
209	United Airlines Business Services Pvt. Ltd.	32000	No	No
210	Urban Clap	40000	No	No
211	Zinnov Management Consulting Pvt. Ltd.	18000	No	Subsidised Canteen Facilities

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
Halol				
212	Aditya Birla Insulators	15000	Acco. for boys only	Subsidised Canteen Facilities
Haridwar				
213	SKF	6000	No	No
Hyderabad				
214	Alexa Apps +	20000	No	No
215	Amazon Business Intelligence	40000	No	Subsidised Canteen Facilities
216	Amazon Development Center	30000	No	Company bus
217	Amazon Fulfillment Center	40000	No	No
218	Apple India Pvt. Limited	45000	No	No
219	Bombardier Transportation	20000	No	No
220	Centre for DNA Fingerprinting and Diagnostics	0	No	BITS provides Rs. 12000 scholarship to the students having 7 CGPA and above.
221	DataM Intelligene 4Market research	15000	No	offer PPO (based on performance)
222	Deloitte Consulting US India	25000	No	No
223	Dr. Reddys Laboratories	10000	No	No
224	Dream Vu	25000	No	No
225	Egnify Technologies	20000	No	No
226	FTD India Private Limited	25000	No	No
227	GGK Technologies - Mobile Services	25000	No	Subsidised Canteen Facilities
228	iBÂ Hubs	7500	No	No
229	IMI Connect Product Development	35000	No	No
230	IMI Mobile Data Analytics	25000	No	No
231	IMI Mobile R&D	35000	No	No
232	JDA Software Solutions	25000	No	No
233	JPMC - Technology	35500	No	Subsidised Canteen Facilities
234	Market Data Forecast (Research Associate)	8000	No	No
235	Microsoft India Development Center	45000	No	No
236	Mytrah Energy (India) Private Limited +	25000	No	No
237	Next Education India Pvt. Ltd.	25000	No	No
238	Novartis	25000	No	tier AC fare amount) + Free Office Transportation at Hyderabad
239	Nvidia Graphics - Hardware	35000	No	Free Lunch & Subsidised Breakfast, to and fro Air Fare will be reimbursed for travel from hometown to Bangalore
240	Nvidia Graphics - Software	35000	No	No
241	Oracle India Pvt Ltd.	35000	Yes	Subsidised Food
242	OYO Tech	45000	Initially one week acco	No
243	Perceptive Analytics	20000	No	No
244	PricewaterhouseCoopers (PWC)	40000	No	No

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
245	Qualcomm India Pvt Ltd	30000	No	No
246	RBJ Technologies Pvt Ltd	15000	No	No
247	ReportGarden Technologies Pvt. LTd.	25000	No	No
248	Servicenow Software Development India	32000	No	No
249	Synergiz Global	15000	No	No
250	Synopsys India Pvt. Ltd.	20000	No	No
251	Tau Films India Pvt. Ltd	30000	No	No
252	UBS Business Solutions (India) Private Limited - Group Operations	25000	No	Subsidised Canteen Facilities, Company bus
253	Vasant Chemicals and Organics Ltd. +	7500	No	No
254	Worley Parsons India	19000	No	No
255	Xilinx India Technology Services Pvt. Ltd.	20000	No	No
Jaipur				
256	CEG Limited	10000	No	No
257	NBC Bearings	4000	No	No
Jamshedpur				
258	Tata Motors Ltd.	18000	No	No
Jodalli				
259	Spicer India Ltd.	8000	No	No
Kolkata				
260	LEA Associates	10000	No	No
261	PriceWaterHouseCoopers	40000	No	No
262	Texmaco Rail & Engineering Ltd.	4000	Acco. for boys only	Free Breakfast, Lunch & Dinner
Lucknow				
263	Tata Motors Ltd.	18000	No	No
Mumbai				
264	Aditya Birla Science & Technology Company Ltd.	13000	No	No
265	Baldor Technologies Pvt Ltd	50000	No	No
266	Breakthrough Management Group India Pvt Ltd	10000	No	Subsidised Canteen Facilities
267	Bundl Technologies Private Limited (Swiggy)	40000	No	No
268	Century Rayon +	7500	No	No
269	Credit Suisse - Credit Analytics	40000	No	No
270	Credit Suisse - Enterprise Operational Risk Management	40000	No	No
271	Credit Suisse - Finance Change	40000	No	No
272	Credit Suisse - Global Markets Controls COO	40000	No	No
273	Credit Suisse - International Wealth Management	40000	No	No
274	Credit Suisse - Market Risk Quant	40000	No	No
275	Credit Suisse - MLR Non-quant	40000	No	No
276	Credit Suisse - Model Risk Management	40000	No	No
277	Credit Suisse - Prime Services	40000	No	No
278	Credit Suisse - Risk & Finance Data Analytics, Reporting	40000	No	No
279	Credit Suisse - Stress Testing	40000	No	No
280	DBOI - Credit Risk	30000	No	Subsidised Canteen Facilities
281	DBOI - MLRM, Risk Methodology & NFRM	30000	No	No

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
282	DBOI - Trading Risk & PL	30000	No	Subsidised Canteen Facilities
283	DBOI (Deutsche Bank) - Operations	30000	No	No
284	Development Consultants Pvt. Ltd. (DCPL)	8500	Acco. for boys only on payment basis	Subsidised Canteen Facilities
285	Edelweiss Financial Services	30000	No	No
286	Edelweiss General Insurance	30000	No	No
287	Exponentia data	25000	No	No
288	Geometric Limited	15600	No	No
289	Goodera - (Next Gen) (Non IT)	40000	No	Subsidised Canteen Facilities
290	Grasim Industries, Pulp and Fibre Division	17000	No	No
291	HDFC Bank	20000	No	No
292	Here Maps - Data Structures	30000	No	No
293	Here Maps - Distributed Data	30000	No	No
294	Hindalco Innovation Centre - Semifab, Taloja	10000	No	No
295	Hourglass Research	17000	No	No
296	J P Morgan Services - Quant	75000	No	No
297	J P Morgan Services -Centralized Research Group(CRG)	50000	No	No
298	J P Morgan Services- Global Markets Group(GMG) - (Markets + Risk)	75000	No	No
299	J P Morgan services- Global research Centre(GRC)	75000	No	No
300	Jarvis Technology and Strategy Consulting Pvt. Ltd.	30000	No	No
301	JPMC - Technology	35500	No	Subsidised Canteen Facilities
302	JPMC CIB Operations	35000	No	Subsidised Canteen Facilities
303	Morningstar	35000	No	No
304	MSCI (Global Implementation Services)	40000	No	No
305	MSCI (IMR)	40000	No	No
306	MSCI (NPD Index Research)	40000	No	No
307	MSCI Financial Planning & Analysis	40000	No	No
308	Multi Commodity Exchange of India Ltd.	15000	No	No
309	My POS Technologies Pvt. Ltd.	50000	No	Subsidised Food
310	Nomura - FinTech	50000	No	No
311	Nomura - Wholesale Strategy	50000	No	No
312	Nomura Global Finance	50000	No	No
313	Nomura Global Markets	50000	No	No
314	Nomura Global Risk	50000	No	No
315	PaySense	25000	No	No
316	Piramal Group	70000	No	III AC Train Fare To & Fro
317	PricewaterhouseCoopers (PWC)	40000	No	No
318	QUANTIPHI	30000	No	No
319	Reliance Jio	35000	No	No
320	Samhita Social Ventures	18000	No	No



S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
321	Skoda Auto India Pvt. Ltd.	14000	No	No
322	Thornton Tomasetti	15000	No	No
323	UBS Business Solutions (India) Private Limited - GRC	25000	No	Subsidised Canteen Facilities, Company bus
324	UBS Business Solutions (India) Private Limited - Group Operations	25000	No	Subsidised Canteen Facilities, Company bus
325	UBS Business Solutions (India) Pvt. Ltd. - IMT	25000	No	No
326	UltraTech Cement Limited (Ahura Centre)	50000	No	No
327	UPGRAD	40000	No	No
328	Viacom18 Media Pvt. Ltd - Corporate Strategy	30000	No	No
329	Viacom18 Media Pvt. Ltd - Digital Ventures	30000	No	No
330	VMS (Vakil Mehta Seth) Consultants Private Limited	10000	No	No
331	Worley Parsons India	19000	No	No
332	Amazon Fulfillment Center	40000	No	No
Nagda				
333	Grasim Industries Ltd. +	8500	No	No
Nagpur				
334	Techture Structures Pvt Ltd.	12000	No	No
Navi Mumbai				
335	GEP	30000	No	No
Neemrana				
336	Hero MotoCorp Ltd	5000	No	No
New Delhi				
337	Investopad	10000	No	No
Noida				
338	Adobe Systems	50000	Yes	Free Lunch, First class to and fro train fare from hometown to internship location
339	ARM Embedded Technologies Private Limited	28000	No	Subsidised Canteen Facilities, First Class Rail Fare, Company bus
340	Indiamart Intermesh Ltd.	20000	No	No
341	Mentor Graphics	30000	No	No
342	Nucleus Software Export Ltd	30000	Initially one week acco.	Subsidised Lunch & Snacks
Pantnagar				
343	Tata Motors Ltd.	18000	No	No
Pilani				
344	Central Electronics Engineering Research Institute +	0	No	BITS provides Rs. 12000 scholarship to the students having 7 CGPA and above.
Pune				
345	A.T.E. Enterprises Private Limited	20000	No	No
346	AFour Technologies	25000	No	Company bus
347	B.G.Shirke Construction Technology Pvt. Ltd.	10000	No	Subsidised Canteen Facilities, Company Bus at Cost
348	Bajaj Auto	20000	No	No
349	Bharat Forge Ltd +	7500	No	No

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
350	Cadence Design Systems India Pvt Ltd. - Processor Design	18000	No	No
351	Century Enka Ltd.	10000	No	No
352	Credit Suisse - Product Control	40000	No	No
353	Credit Suisse - Risk & Finance Data Analytics, Reporting	40000	No	No
354	Credit Suisse - Technology	40000	No	No
355	Credit Suisse- Finance Change	40000	No	No
356	Divgi TorqTransfer Systems Pvt. Ltd, Shivare	12500	No	No
357	Divgi TorqTransfer Systems Pvt. Ltd. - Bhosari	12500	No	No
358	Ecozen Solutions (P) Ltd.	20000	No	No
359	Geometric Limited	15600	No	No
360	HCL Technologies	18000	No	No
361	IBM India Software Group	30000	No	No
362	IDeaS - SAS - Analytics	25000	No	No
363	IDeaS - SAS - Software Development	30000	No	Free Lunch
364	Knorr-Bremse Technology Center India Private Limited	15000	No	subsidised Canteen (INR 550/pm) and transport facility (INR 1500/pm) to students.
365	Mahle Behr	8000	No	No
366	Minda Corporation +	10000	No	No
367	National Chemical Laboratory	0	No	BITS provides Rs. 12000 scholarship to the students having 7 CGPA and above.
368	Nvidia Graphics - Hardware	35000	No	Free Lunch & Subsidized Breakfast, to and fro Air Fare will be reimbursed for travel from hometown to Bangalore
369	Nvidia Graphics - Software Systems	35000	No	Free Breakfast, Lunch & Dinner, Company Bus at Cost
370	Propeluss	30000	No	No
371	Reflexis Systems India Pvt Ltd.	30000	No	Subsidized Canteen Facilities
372	Skoda Auto India Pvt. Ltd. (Chakan)	12000	No	No
373	Sokrati Technologies Pvt. Ltd.	10000	No	No
374	Spicer India Ltd.	8000	No	No
375	Symantec Software Solutions Pvt. Ltd - Data Analytics	40000	No	No
376	Symantec Software Solutions Pvt. Ltd. - Data Structures and Algorithms	40000	No	Subsidized Lunch & Breakfast, Company bus
377	Tata Autocomp Systems Ltd.	12000	No	No
378	Tata Chemical Innovation Center	10000	Yes	Subsidized Breakfast, Lunch & Dinner
379	Tata Motors Ltd. +	18000	No	No
380	UBS	25000	No	No
381	UBS Business Solutions (India) Private Limited - Group Operations	25000	No	Subsidized Canteen Facilities, Company bus
382	UBS Business Solutions (India) Private Limited - IMT	25000	No	Subsidized Canteen Facilities, Company bus

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)	Accommodation provided	Other
383	UBS Business Solutions (India) Private Limited - RAS FINANCE	25000	No	Subsidized Canteen Facilities, Company bus
384	Veritas Software Technologies India	40000	No	No
Thiruvananthapuram				
385	Law Pundits	12500	No	No
386	UST Global Infinity labs- Cyber security	20000	No	No
387	UST Global Infinity IAbs- Machine learning	20000	No	No
388	UST Global Infinity Labs-Block Chain	20000	No	No
389	UST Global Infinity labs-Internet of Things	20000	No	No
390	UST Global Infinity Labs-Robotics	20000	No	No
391	UST Global- Infinity Research- 3D printing	20000	No	No
392	UST Global Infinity-Cloud Computing	20000	No	No
393	UST Global- Trivandrum+	20000	No	No
394	UST Global-Infinity lab-Artificial Intelligence	20000	No	No
395	UST Global-Infinity Labs- Augmented Reality	20000	No	No
Udaipur				
396	munshiG Pvt Ltd	21000	No	Subsidised Canteen Facilities, First Class Rail Fare, Company bus, Quarterly field visits (2-4 days) Mumbai/ Bangalore/ Chennai/ Delhi
Visakhapatnam				
397	Dr Reddys Laboratories	10000	No	No

LIST OF PROJECT ASSIGNMENTS FOR SECOND SEMESTER 2017 -2018

- 1 A.T.E. Enterprises Private Limited , Pune
  1. Development & Execution of Marketing Communication Plan
- 2 A.T.E. Enterprises Private Limited, Research & Development , Bangalore
  2. Design Fabrication and development of two stage evaporative cooling
- 3 Aditya Birla Insulators , Halol
  3. DEVELOP MEASURES FOR OTIF & IMPROVE IT IN THE SUPPLY CHAIN
  4. Inventory management of Finish goods to improve the inventory turnover ratio
  5. Lead time reduction in R&D quality testing
  6. Metal Cap Design Optimization.
  7. Positioning of quality control points for input materials and its impact on OTIF
  8. Reduction of Manual Touch Point in Production Line
- 4 Aditya Birla Science & Technology Company Ltd. , Mumbai
  9. CFD modelling and simulation of copper electro-refining process
  10. Modeling and Simulation of an Industrial Rotary Dryer
  11. STUDY OF AGGLOMERATION TENDENCY OF PIGMENTS IN DOPE DYED VISCOSE
- 5 Adobe Systems , Bangalore
  12. An offline publishing solution for Designers
  13. Offline Searching over the Document Cloud
- 6 Adobe Systems , Noida
  14. Deep Product Search
  15. Photoshop Express
- 7 Alexa Apps , Hyderabad
  16. Voice Applications for Alexa
- 8 Altair Engineering India Pvt. Ltd. - Software Division , Bangalore
  17. Context Building for StressToolBox
  18. MODIFICATIONS IN FATIGUE PROCESS MANAGER MODULE & DEVELOPMENT OF MODAL SUPERPOSITION MODULE
- 9 Altisource Business Solutions , Bangalore
  19. 1. Production Monitoring System PoC, 2. Spring Boot REST Application
  20. Data Extraction
  21. Dynamic Form studio
- 10 Amazon Business Intelligence , Hyderabad
  22. Address Normalization, Anomaly Detection Platform
  23. Geocode Prediction and Anomaly Detection
- 11 Amazon Development Center , Bangalore
  24. (a) To implement sandbox environment for our service in AWS. (b) To write integration tests for the service being developed.
  25. ADDING DEBUG SUPPORT FOR RECOMMENDATION SERVICE AND IMPROVING PERFORMANCE OF BOILERPLATE REMOVAL ALGORITHM
  26. Adding functionality to ASIN Finder Tool
  27. API CONSOLE INTEGRATION FOR BADGER SERVICE
  28. Asset Translation in Amazon Prime Video service
  29. Authorization control of PayStation resources using Bindles
  30. Development of Machine Learning and Training Platform for Advertising
  31. Merchant Configuration Tool
  32. Omega Bidder Engine
- 12 Amazon Development Center , Chennai
  33. Alexa
  34. Alexa
  35. Catalog Image Processing
  36. Framework for Echo Device Software to perform A/B testing .
  37. Generic Data Dumper
  38. IMAGE SEARCH BY COLOR COMBINATION
  39. Multimodal tablet

- 13 Amazon Development Center , Delhi
  - 40. Order Clustering Service for Abuse Detection
- 14 Amazon Development Center , Hyderabad
  - 41. Addons to Queue Management
  - 42. BCP Web Application
  - 43. Customer Returns Label Page Migration
  - 44. DUMBDOWNDEBUGGING & BULK UPLOAD PICKUP CONFIGURATIONS
  - 45. Forecasting Integrated with Simulation Tool
  - 46. GPS Metadata based check for Forgery Detection ; Third party OCR evaluation
  - 47. Herd Workflow Viewer, VIS Migration
  - 48. Internal Service Portal
  - 49. Return Shipment Tracking, Shipment Tracking Analytics
  - 50. TestMarketplace along with UI, Full CD for SWAFlashService, DDB Stream Migration
  - 51. Vendor Central Invoice Management Turkey Launch
- 15 Amazon Fulfillment Center , Bangalore
  - 52. Improving Inbound Operations Efficiency And Managing The Launch Of New Amazon.in Ventures
 Amazon Fulfillment Center , Chennai
  - 53. Process improvements for reducing OB FPY DPMO at MAA4
- 16 Amazon Fulfillment Center , Hyderabad
  - 54. creturn productivity and salability improvement project
- 17 Amazon Fulfillment Center, Mumbai , Mumbai
  - 55. TRANSSHIPMENT & PICK PRODUCTIVITY IMPROVEMENT IN OUTBOUND OPERATIONS
  - 56. TRANSSHIPMENT/IXD DEFECT INJECTION REDUCTION
- 18 American Express India , Bangalore
  - 57. Distributed Deep Learning
  - 58. Online Gradient Boosting Machine
- 19 American Express India -Risk Information Management -Capabilities(RIM -C) , Gurgaon
  - 59. Deep Learning Experimentations on Credit Card Industry Data
  - 60. Using deep learning for classification of semi-structured data
- 20 Analog Devices - Design and Simulation , Bangalore
  - 61. Auto commissioning using deep learning
  - 62. Firmware patch scripting and Fast Models Tarmac
  - 63. Post layout corner, PVT and Brown out Simulation on a Power On Reset block.
- 21 Analog Devices - Design Verification , Bangalore
  - 64. Detection of Human Hand on objects using Machine Learning
  - 65. Interfacing of MEMS Microphones with ADuCM4050 MCU
- 22 Analog Devices India Pvt Ltd -Quality management , Bangalore
  - 66. Ensuring project/process performance through facilitation, automation and auditing for automotive software projects.
- 23 ARM Embedded Technologies Private Limited , Bangalore
  - 67. Asymmetric Aging
  - 68. Floorplan Architect for A - Class CPU
  - 69. FRAMEWORK FOR TRACE UNIT TESTING OF CIRCULAR BUFFER LOGS
  - 70. Mining the technology data as a reference for future scaling
  - 71. NB-IOT
  - 72. SMS PROTOCOL VERIFICATION FOR NB-IOT
  - 73. Spice Based Analysis for Crosstalk and Signoff
  - 74. Standard cell Characterisation for SK Hynix PDK Refresh
  - 75. Top-Down Hierarchical flow of big CPU/GPU
- 24 B.G.Shirke Construction Technology Pvt. Ltd. , Pune
  - 76. Structural Analysis, Design & Scheduling of Precast Structures
- 25 Bajaj Auto , Aurangabad
  - 77. Effective DFA and Build sequence of Qute CNG and LPG models
  - 78. Productivity Improvement of 4S CNG Auto rickshaw â€ Man Power Reduction
- 26 Bajaj Auto , Pune
  - 79. ANALYSIS OF 3WH (RE205) MAIN SHAFT ASSEMBLY SPEED GEAR SEIZURE
  - 80. Standardization of conveyor - c and forming standardization manual

- 27 Baldor Technologies Pvt Ltd , Mumbai  
81. Operations Efficiency  
82. Product Management at Baldor: Agile Strategies
- 28 Beckman Coulter (f ormerly ReaMetrix India P Ltd) , Bangalore  
83. VERIFICATION AND VALIDATION OF DURACLONE 34845 REAGENT ON DXFLEX FLOW CYTOMETER  
84. Verification and validation of Duraclone Tri-T-stat CD3/CD4/CD8 on the Dx-Flex Flow cytometer
- 29 belong.co , Bangalore  
85. Real Time Web Application Development  
86. Sequence Labelling for Email Tagging
- 30 Bharat Forge Ltd , Pune  
87. Implementing Industry 4.0 on PZS-1 line  
88. Modification in the design of tooling for grinding the crankpins of crankshaft having a specific stroke & FEA of driving gear tooth used in crankpin grinding machine  
89. ROOT CAUSE ANALYSIS OF FORGING ROLL GROUP MACHINE AND THE CORRESPONDING PREDICTIVE MAINTENANCE TECHNIQUES
- 31 Blue Jeans Network India Pvt. Ltd. , Bangalore  
90. 1. Implementation of Logger Service 2. Internationalization  
91. Automation framework for primetime streaming.  
92. Development of features and bug fixes for command centre  
93. Development Tasks at BlueJeans Networks  
94. Integrating Shaders in the Graphics Pipeline and iOS Development Tasks  
95. Maintenance of Bluejeans Analytics Service  
96. V3 Search Optimization
- 32 Bombardier , Delhi  
97. Sales and Bid Management Overview in Bombardier Transportation  
Bombardier Transportation , Hyderabad  
98. Fire dynamic analysis of passenger train  
99. Optimization of Underframe corrugated sheet geometry in train floor system  
100. Thermal Comfort in Metro Trains and Development Of 1-D Pressure Drop Tool for HVAC Ducts
- 33 Bundl Technologies Private Limited (Swiggy) , Bangalore  
101. Customer Connect  
102. Data Applications at Swiggy  
103. POP Menu Automation  
104. Pre-Midsem: Managing Late Night and Breakfast as categories, Post-Midsem: RainMode  
105. To increase customer satisfaction by working on discounts at Swiggy
- 34 Bundl Technologies Private Limited (Swiggy) , Mumbai  
106. Business Marketing  
Cadence De sign Systems India Pvt Ltd. - CAD Software , Bangalore  
107. TRANSMISSSION ENVELOP DETECTOR AND DETECTION ENVELOP DETECTOR
- 35 Cadence Design Systems India Pvt Ltd. - Processor Design , Pune  
108. Addition of Benchmark and powediag Convolutiuon  
109. Calculation of the number of MOPS and Creation of API for Deepspeech 2 Architecture for Artificial Speech Recognition
- 36 Capillary Technologies - Testing Automation , Bangalore  
110. Rest Api development for Campaigns Team
- 37 CEG Limited , Jaipur  
111. ANALYSIS AND DESIGN OF PSC GIRDER  
112. Design of Steel Canopy & Bowstring Arch Bridge  
113. Different Aspects of Highway Geometric Design & Their Application in Ongoing Projects  
114. GEOMETRIC DESIGN OF HIGHWAYS
- 38 Central Electronics Engineering Research Institute , Pilani  
115. Design and Analytical Modeling of a MEMS based Torsional Accelerometer
- 39 116. Central Electronics Engineering Research Institute , Pilani  
117. Prediction of health of food grains stored in warehouse using IoT and DL  
118. Soundscape Recreation using Binaural Audio Synthesis
- 40 Central Leather Research Institute (CLRI) , Chennai  
119. Evolving Fluorescent Protein Based pH Sensors For Cell Imaging.

120. Fabrication of siRNA and Chemotherapeutic Agents Incorporated Nanofibers for Colon Cancer Therapeutics
121. Molecular Modelling of protein-ligand complexes: Beta-3-Tubulin
- 41 Centre for Artificial Intelligence & Robotics , Bangalore
122. AUTONOMOUS ROAD SEGMENTATION IN UNSTRUCTURED ENVIRONMENTS
123. SMART STAIR CLIMBER AND NOISE CANCELLATION
- 42 Centre for DNA Fingerprinting and Diagnostics , Hyderabad
124. Characterization of the role of histone modification during Mycobacterial infection
125. Understanding the role of histone proteins in recruitment of the DNA repair factors to the damage site  
2. Title of the project: To study the role of phosphorylation in the degradation of the Hst4 on DNA damage (yeast model)
126. Understanding the roles of PPM Phosphatases in Vesicular Trafficking
- 43 Century Rayon , Mumbai
127. RECOVERY OF ZINC FROM TYRE CORD WASTE EFFLUENT
- 44 Cisco Systems (India) Pvt. Ltd - Software Engineering , Bangalore
128. (i) Autonomous robot for IoT applications (ii) Deploying applications on Cisco IOx
129. 1. Conversational chatbot built with NLP 2. Deploying IOX applications on Cisco IR8x9 router 3. Lab analytics with face recognition
130. 2) AWS Public Cloud ENI migration for High Availability
131. Automated Test Suite Generation
132. Change Based Testing (CBT)
133. CodeLite
134. Consistency Checker for UCS FI switch
135. Data path simulation log analyzer
136. Designing PRISM- Processes, Resources, Infrastructure & Services Monitoring.
137. ET&I Security Tools Delivery Automation
138. Extract Intelligent Information From Logs For Quality Improvement
139. High Availability framework for real life stateful cloud applications
140. High availability framework for real time stateful applications in cloud environment
141. Hosting Session Manager for a Wired Session on the Cloud
142. IM Compatibility tool and UT Automation using unWind!
143. Multi Device Manager(MDM)
144. Multiple PoE Ports per PSE port
145. Network as a Sentinel
146. Network Data Plane Programming using P4 (Programming Protocol - Independent Packet Processors) language
147. OTP based authentication via Web-Auth and avoiding generation of reserved IPv6 interface identifiers
148. PART-I: Performance Improvement of PPPoE Client Emulation on ASR1000 Router; PART-II: Hosting TRex as a Container on ISR4k Router for PPP Sessions
149. PTP and OS clock synchronization
150. RF Profiling
151. SNORT-IDS (INTRUSION DETECTION SYSTEM) Cross Compilation for ARM Processors
152. Space optimization of Application Logs (Single & Distributed)
153. STUDY OF ACCELERATION OF PACKET PROCESSING ALONGSIDE DPDK AND OTHER OPEN SOURCE TECHNIQUES
154. Tech Support Parser
155. Test framework and automation for CISCO's components
156. To verify and validate vWAAS on Suse Linux
157. UPLIFT AND FRAMEWORK INTEGRATION OF UT AUTOMATION IN IOS-XR
- 45 Credit Suisse - Credit Analytics , Mumbai
158. An overview of Global Market Controls - Methods and Protocols
159. Credit Risk Management- AIRB Stress Testing
160. Financial Crime Program
161. Operational Risk Incident Reporting
162. Prime Services
- 46 Credit Suisse - Global Markets Controls COO , Mumbai
163. CONTROLS ATTESTATION: GLOBAL MARKETS CONTROLS
164. Natural Language Processing for Chatbot using Machine Learning in Python

- 47 165. Credit Suisse - International Wealth Management , Mumbai  
166. A Buy Side Analyst's approach to Equity Research in Private Banking  
167. Investment Portfolio Performance Review  
168. Securities Lending
- 48 Credit Suisse - Market Risk Quant , Mumbai  
169. Current Exposure Method Model using R  
170. Economic Risk Capital, Operational Risk, Illiquid Hedge Funds(iHF), Fund linked Products, Liquid Traded Risk(LTR), Traded Risk  
171. Market  
172. MINIMUM CAPITAL REQUIREMENTS FOR MARKET RISK - THE INTERNAL MODELS APPROACH  
173. Supervision and Oversight to mitigate operational risk at Credit Suisse
- 49 Credit Suisse - MLR Non-quant , Mumbai  
174. MARKET RISK MANAGEMENT  
175. X-VALUATION ADJUSTMENTS (xVA) FOR MARKET LIQUIDITY RISK MANAGEMENT (MLRM)
- 50 Credit Suisse - Model Risk Management , Mumbai  
176. CREDIT ANALYTICS: Implementation Checks  
177. SACCR Methodology
- 51 Credit Suisse - Prime Services , Mumbai  
178. RISK CLASSIFICATION AND MODELLING  
179. Understanding the Prime Services Business Balance Sheet Attribution Model across Regions Custom Prime Financing Framework Dividend Forecasting Client Concentration Analysis Forecasting Changes to MSCI DM Europe Index
- 52 Credit Suisse - Product Control , Pune  
180. Analysis tool development for Standard Initial Margin Method (SIMM)  
181. FRONTOFFICE AND BACKOFFICE DATA RECONCILIATION  
182. PRODUCT CONTROL OF EQUITY DERIVATIVES IN INVESTMENT BANKING , AUTOMATION OF LATE TRADES AND CNC  
183. PRODUCT CONTROL OF FOREIGN EXCHANGE TRADES & STREAMLINING OF UNTESTED INVENTORY REPORTING PROCESS IN INVESTMENT BANKING
- 53 Credit Suisse - Technology , Pune  
184. Generic Data Validation Framework using Python, Optimization & support for numerous types of Databases
- 54 Credit Suisse - Finance Change , Pune  
185. Automation of Settlements and Recharges Process  
186. PROFIT & LOSS RECONCILIATION IN PRODUCT CONTROL
- 55 Cypress Semiconductor India Pvt Ltd. , Bangalore  
187. DESIGN AND IMPLEMENTATION OF EUSB REPEATER  
188. Design of High speed transmitters for USB protocols  
189. FX3 related issues and applications  
190. Real Value Modelling For Mixed Signal Verification  
191. Theory and Analysis of Different Stages of RTL2GDSII flow.  
192. USB 3.1 GEN1/2 Electrical Testing & Post Silicon Validation
- 56 DBOI (Deutsche Bank) - Operations , Mumbai  
193. Credit Rating  
194. Credit Rating Analysis  
195. Credit Rating Analysis of Corporates, Asset Manager and Banks  
196. Daily production of Risk and PnL for Emerging Markets  
197. Data Quality and Governance  
198. GLOBAL CREDIT RATING  
199. Market Risk Analysis & Control  
200. Market Risk Analysis and Control  
201. No Project. Daily work  
202. Rating analysis  
203. Risk Methodology and Value at Risk  
204. Strategic Production of Risk using Full Revaluation method  
205. VaR/SVaR (Business As usual)



- 57 Decision Resources Group , Bangalore  
 206. 1) Health Technology Assessment Report Extraction 2) Security and Exchange commission (SEC) filings 3) Managed Entry Agreements in Italy  
 207. Clinical Trials Data Set for Immune Checkpoint Inhibitors  
 208. Secondary Research (Clinical trial dataset for Immune Checkpoint Inhibitor)  
 209. Secondary research (Project: Clinical trials dataset for Immune Checkpoint Inhibitors)
- 58 Dell R&D , Bangalore  
 210. Predicting the Server Component's Part Life Using Machine Learning  
 211. Server performance improvement using data analytics techniques.  
 212. UEFI Based Network Performance Utility  
 213. UWP Application to Manage Dell Client Systems
- 59 Deloitte Consulting US India , Bangalore  
 214. Product Lifecycle Management  
 215. Automation Testing of a US Healthcare and Insurance Application  
 216. Consulting project with various clients to implement HCM Cloud  
 217. Digital Transformation of HR Processes for a Global Oil Multinational  
 218. HCM Implementation in ABM  
 219. Oracle HCM Implementation (Phase 2) - Performance and Compensation module  
 220. US Public and Private Sector Health Care Systems, and Software Testing
- 60 Development Consultants Pvt. Ltd. (DCPL) , Mumbai  
 221. Analysis and design of R.C.C structures  
 222. ANALYSIS AND DESIGN PROCESSES AND METHODOLOGIES FOR POWER PLANT STRUCTURES
- 61 Divgi TorqTransfer Systems Pvt. Ltd, Shivare , Pune  
 223. To implement and improve Overall Equipment Effectiveness (OEE) at Divgi Torq-Transfer Systems Shivare.
- 62 Divgi TorqTransfer Systems Pvt. Ltd. - Bhosari , Pune  
 224. DESIGN,DEVELOPMENT AND VALIDATION OF HEAVY DUTY TRANSFER CASE  
 225. Tool Manual, Costing Guidelines & Databases
- 63 Dr Reddys Laboratories , Visakhapatnam  
 226. Analytical Method Development for Detergent residue detection using High Performance Liquid Chromatography (HPLC) and Validation of Procedure using Statistical Methods.  
 227. Processes in Commercial Production of Drug Product.  
 228. Study of Standard Cleaning Procedures for Pharmaceutical Equipment and optimizing them with better reproducibility and assurance.
- 64 Dr. Reddys Laboratories , Hyderabad  
 229. Analytical method development and validation of API  
 230. Formulation and Evaluation of a Combinational therapy in the treatment of cardiovascular disease.  
 231. Generic product development of Low dose Peptidal hormone injection  
 232. Stability Studies of different API Polymorphs to find a stable polymorph.  
 233. Taste masking of Unpleasant Model Drug for Solution Formulation
- 65 Dream Vu , Hyderabad  
 234. Business Strategy, Marketing Communications and Investor Relations  
 235. Market and Equity Research along with the Sales Strategy
- 66 Ecozen Solutions (P) Ltd. , Pune  
 236. Compressor selection for solar micro cold storage  
 237. Testing of components of Ecofrost V3.0
- Edelweiss Financial Services , Mumbai  
 238. Model Building for Retail Finance
- 67 EMC , Bangalore  
 239. Software Development of NMM modules
- 68 EnSci - A Unit of Weir Minerals India Pvt. Ltd. , Bangalore  
 240. Calculations for Hopper Design and Concept Design for Throughput Monitoring system  
 241. Digital Twin of Weir Using LabVIEW
- 69 Ericsson Global India Pvt. Ltd. , Bangalore  
 242. Functional Verification(SIP Protocol)  
 243. SESSION INITIATION PROTOCOL
- 70 Ernst & Young (Advisory Services) , Gurgaon  
 244. Developing Comprehensive Net Metering Regulations for India

245. Solar Energy Projects undertaken at EY
- 71 Fidelity Investments , Bangalore
246. Corporate Governance
247. Emerging technologies impacting financial services
- 72 Flipkart Analytics , Bangalore
248. 1) Source Allocation Optimization 2) Planning Automation
249. 1) vendor tiering 2)Product Quality 3)Seller calls deep-dive
250. ANALYSIS & REPORTING OF SUPPLY CHAIN BREACH
251. Atom
252. Calls Forecasting and Event Subscriber
253. User Experience
- 73 Flipkart Internet Services Pvt. Ltd , Bangalore
254. Aerospike Backup and Restore Plugin and Removal of Archival Listings from Aerospike
255. Anomaly Detection on Time-Series Signals and Data coherency
256. Automated catalogue creation from eBay data
257. Benchmark Framework
258. Data Driven Collections for Flipkart Pay Later
259. Data Store As A Service
260. Developing components for Journey platform
261. Development of Security Team Dashboard and SonarQube Scanner Facility to Flipkart employees
262. ENHANCING AND SCALING CUSTOMER ASSISTANCE BY SUMMARISATION OF PREVIOUS CHAT RECORDS
263. EVALUATION OF AN OPEN SOURCE SEARCH ENGINE, VESPA FOR E-COMMERCE SEARCH
264. FACILITATING TEMPLATE GENERATION THROUGH CROSS TEMPLATE ATTRIBUTE MATCHING; AND CLASSIFYING IMAGES INTO PRODUCT VERTICALS
265. FKPG Console for payments and refunds
266. Heavy Hitter Metrics, Alerts Service, Application design and feature enhancement
267. Motherhub - Integration of third party sorting technology
268. Partial Match for Long String Queries
269. Performance analysis of Cost Based Optimizer in Hive for the use cases of Flipkart Data Platform
270. Predictive Recommendations
271. Projects done at Flipkart Internet Services Pvt Ltd (1. Benchmarking AI / ML operations on latest GPU platforms 2. Automated Machine Learning)
272. Restructuring and adding features to library for regressive testing automation and integrating it with different services
273. Rich Entity Description Service
- 74 Frost & Sullivan , Chennai
274. Changing Indian agricultural sector with infusion of Information and communication technology(ICT)
275. Analysis of Changing Trends in Telecommunication Industry
276. END USER SEGMENT ANALYSIS, MARKET FEASIBILITY RESEARCH, ISP PROFILING, SUPPLIER PROFILING FOR A MANUFACTURING COMPANY MACRO ECONOMIC ASSESSMENT IN THE MIDDLE EAST & AFRICAN COUNTRIES AND CUSTOMER SERVICE EXPERIENCE BENCHMARKING.
277. Market Research Assessment
- 75 Genpact , Bangalore
278. 1) Lytics Project, 2) Internal team survey analysis for Genentech and FAO
279. Creation of fortnightly dashboard for tracking payments
280. Market Basket Analysis using Associative Machine Learning
281. Social Listening and Insight Generation
282. Social Listening and Insight Generation for Business Related Problems of Client
283. Social Media Research & Insights
284. validate the financial KPIs and prepare a case study on development of financial IT tool.
- 76 Geometric Limited , Mumbai
285. Finding Projected Boundary of CAD model by Calculating the Concave Hull of the CAD model.
- 77 Geometric Limited , Pune
286. HANDS-ON EXPERIENCE OF CAMWorks AND CREATING INTERFACE TO CHANGE TOOL DATA OF TechDBc THROUGH EXCEL
- 78 GGK Technologies - Mobile Services , Hyderabad
287. A Report on Data Science Projects

288. Data Science POCs (Customer Lifetime Value) and Web Development (Zimmet Healthcare)
289. Data Science POCs on Customer Life Time Value and Recommender System
290. Machine learning techniques for Customer Profiling and Customer Lifetime Prediction
291. Village Creed
292. web application developmenr using python ,django framework
- 79 Goldman Sachs - IT , Bangalore
293. I completed a couple of projects: 1. GS client onboarding automation. 2. NBlox to passback appropriate flags to client post execution.
- 80 Goldman Sachs India Pvt. Ltd. - Operations , Bangalore
294. ?a] Inter Systems Reconciliations(BAU) b] Root Cause Analysis c] Workflow Automation
295. 2013B3A10549
296. A. Intersystem reconciliation B. Root cause analysis C. Workflow Automation
297. a] Improving Electronic Settlement of Brokerage Listed Derivatives through Optimization of Matching Rules b] Reporting and Invoicing Solution for Quant Trading
298. Automation of Missing settlements instructions
299. Control Framewrok - Process improvement overview
300. Data Analytics
301. Data Integrity Framework
302. Derivative Confirmations - OCON STP
303. investment guideline
304. Recommendation of ABW furniture based on employee and stakeholder feedback
305. Risk Control by Ensuring Accurate Trade Representation
306. Trade Analytics
- 81 Goodera (NextGen PMS Pvt. Ltd) - Non IT , Bangalore
307. GRANT MANAGEMENT SYSTEM
- 82 Goodera (NextGen PMS) - IT , Bangalore
308. Building Dashboards For CSR-Heads
309. Building Digital Dashboards
310. Developing Digital Dashboards
311. Digital Dashboards â€™ Monitoring CSR Activities
- 83 Grasim Industries Ltd. , Nagda
312. CALCULATION OF TR LOAD IN VISCOSE-1 &VISCOSE-2
313. Exhaust System Employed in the Spinning Division of VSF Plant
314. Study Of Multistage Flash Evaporators in Auxiliary Department-II
- 84 Grasim Industries, Pulp and Fibre Division , Mumbai
315. Advanced data analytics application for resource efficiency modeling of VSF manufacturing operations
- 85 HDFC Bank , Mumbai
316. Analytical Workbench (AWB) for Personal Loans (PL)
- 86 Here Maps - Data Structures , Mumbai
317. ADDITION OF FEATURES AND DEVELOPING A FRONT-END FOR A CODEBASE
318. Data Validation using Product Validation Framework
- 87 Here Maps - Distributed Data , Mumbai
319. Dockerization Of Batch Validation, Migration to POSTGRESQL, Point Address Classification  
Here Maps , Bangalore
320. Maps Solutions
321. OpenSearch Engineering
- 88 Hindalco Innovation Centre - Semifab, Taloja , Mumbai
322. Automation of post processing in HyperView Using TCL
323. Graphical Analysis of Aluminium Rolling Data using R-programming
324. QUANTIFICATION OF MICROSEGREGATION AND MODELING OF RECOVERY AND RECRYSTALLIZATION IN ALUMINIUM ALLOYS
- 89 Hindustan Unilever Research Centre , Bangalore
325. &Double;Effect Of Glycol Ethers On Solution And Foam Properties Of Anionic And Non-ionic Surfactants&Double;
326. ANTIDANDRUFF ACTIVES: (a) QUANTIFICATION OF ZINC PYRITHIONE & (b) INTERACTION STUDIES OF OCTOPIROX WITH IRON(III)
327. Bleaching optimization
328. Computational prediction of stability constants of chelators

- 329. Developing an iron(III) assay to explore environmentally safer alternatives to phosphorus based sequestrants in detergents
- 330. Dissolved Oxygen (DO) in water
- 331. Effect of foam parameters on foam wall interaction
- 332. Establish and Validate the robustness of new foam generation method
- 333. FLUIDIZED BED DRYER: DRYING KINETICS AND PARTICLE SIZE DISTRIBUTION
- 334. In-Silico modelling of Eumelanin Aggregate
- 90 Mapping of the rheological properties of surfactant mixes for various home care applications
- 335. Mechanistic understanding for designing selective adsorption of organic matters via flocculation
- 336. OIL TOLERANCE OF FOAM: INTERACTION BETWEEN SURFACTANTS AND OILS
- 337. STUDY OF STABILITY OF HYDROGEN PEROXIDE (4%) IN MILD ACIDIC CONDITIONS CONTAINING SURFACTANTS IN PRESENCE OF SEQUESTRANTS
- 338. Surfactant Adsorption on Fabric - Experiments and Key Learnings
- 339. Understanding Surface/Interfacial Properties of different Surfactant Systems
- 340. Zein as a Sustainable Biomaterial for Making of Films with Enhanced Barrier Properties
- 91 Holiday IQ - Tech , Bangalore
- 341. Business Strategy & Analytics - Leads
- 342. Nurturing engine and prospect creations
- 92 Hortonworks Data Platform India Pvt. Ltd. , Bangalore
- 343. Deploying Dataplane Services on Individual Pods on Kubernetes Cluster
- 344. Distributed Random Data Generation at Scale using PySpark
- 345. Test case Analytics and Chaos Monkey
- 93 Hourglass Research , Mumbai
- 346. Patent Analytics
- 347. Patent Analytics
- 94 iB Hubs , Hyderabad
- 348. iB Hubs Startup School
- 349. iB LEAD Boot Camp, ER Data & Ragic
- 350. iB LEAD Boot Camps, Content Marketing
- 95 IBM India Software Group , Bangalore
- 351. A language independent correction layer over an automatic speech recognition engine for correcting erroneously detected alphanumeric sequences
- 352. a) A Language Independent Correction Layer Over Automatic Speech Recognition Engines(ASR) For Correcting Erroneously Detected Alphanumeric Sequences b) Email to EDI using Enhanced Business Agent(EBA)
- 353. Additional Notes Automation
- 354. Automating Comment Generation
- 355. Banking Behavior Analytics
- 356. Customer behavior analytics
- 357. Customer Behavior Insights in Commercial Bank Transactional Data
- 358. Customer Behavioral Analytics
- 359. Development of B2B E-mail Analytics Application
- 360. Enabling Smart-buildings using Hybrid Cloud and the Internet-of-things
- 361. Tealeaf Saas integration with AskWatson
- 362. Unsupervised learning from Internet
- 96 IBM Security - Fiberlink , Bangalore
- 363. Cloud Extender
- 364. CORE PLATFORM DEVELOPMENT IN MOBILE DEVICE MANAGEMENT
- 365. Customer Onboarding
- 366. DEVELOPING APPS CATALOG ON MAAS360 PORTAL
- 367. Insights Advisor
- 368. MaaS360 Mobile Device Management
- 369. Streamlining of SCEP Infrastructure (EJBCA) for MaaS360
- 370. UI Enhancement for MaaS360 IOS Agent
- 97 IDEaS - SAS - Analytics , Pune
- 371. fine tuning databases for CMA integration
- 372. G3 Intervention data Analysis

- 98 IDeaS - SAS - Software Development , Pune  
373. Casper- RMSLITE  
374. Recruitment Portal  
375. ShipIT WebApp
- 99 IFB Home appliances division , Verna  
376. Assembly Line Balancing of IFB Industries, Goa  
377. Smart Drive Product Development  
378. Solar Assist based washing machines
- 100 IFB Industries , Goa  
379. Baffle Design and Mechanical Action optimization for front load washing machine  
380. Capacity Enhancement (Drum volume) by optimizing dynamics of vertical axis washing machine.  
381. Concept Development for IFB Dual Wash
- 101 IMI Connect Product Development , Hyderabad  
382. Product Management, Web Development, Prototyping and DevOps for IMIchat  
383. Salesforce app to send SMS using IMI messaging API
- 102 IMI Mobile Data Analytics , Hyderabad  
384. DYNAMIC AUTOMATION AND HANDLING OF CLIENT REPORTS AT IMI DATA ANALYTICS  
385. Product Management in IMI Connect, Projects by IMI Analytics Name and Designation of the expert
- 103 IMI Mobile R&D , Hyderabad  
386. Building bots and Backend development of IMIbot framework
- 104 IMS Health , Bangalore  
387. Global Pharma Market Analysis & Pipeline Landscaping  
388. IDENTIFICATION AND PROFILING OF KEY OPINION LEADERS & MARKET LANDSCAPE ASSESSMENT OF HYPERTRIGLYCERIDEMIA PATIENTS IN CANADA  
389. Identification and Profiling of Key Opinion Leaders, Digital Health Initiatives in south east Asian Countries  
390. Internal Exponential Smoothing Tool and Epidemiology Model  
391. Primary Market Research on Specific diseases
- 105 IMS Health , Gurgaon  
392. 1) TO UPDATE AND VALIDATE CANCER CENTER FACILITIES, 2018 2) QUARTERLY UPDATE OF REPORTS FOR DIFFERENT COMPANIES USING ONCODYNAMICS DATABASE 3) ANALYSIS AND CATEGORIZATION OF BIOMARKERS FROM CLINICAL TRIALS  
393. a) Understand the usage of Anti-Diabetic products and attitude of Physicians towards these products b) Secondary desk research (SDR) on identification of centers for severe Asthma  
394. CAPTURING PRODUCT MONOGRAPHS, INTERNATIONAL PRICING, HEALTH ECONOMICS & OUTCOME RESEARCH AND OTHERS  
395. Forecasting Canadian Asthma Market  
396. Healthcare Pharmaceutical Excel Modeling  
397. Integration of primary and secondary research methodology for assessment of strategic marketing and business operations (clinical) insights for major pharmaceutical companies  
398. Understanding Consumer Health Industry Trends And Making Financial Report Of Consumer Health Company
- 106 India Mart, Chennai , Chennai  
399. Understanding the role responsibilities and difficulties of being a business manager in client servicing division Indiamart Intermesh  
400. Digital Strategy Consultant (ad sales)
- 107 Infinera , Bangalore  
401. Channel Characterization and tuning of High Speed SerDes Links on the MUXPONDER 400  
402. Design and Verification of XTP-Frame Generator  
403. Ingersoll Rand India Ltd , Bangalore  
404. New Product Development of Thermal based Project
- 108 InMobi - Global Outreach , Bangalore  
405. Campaign Management  
406. Performance Marketing: Wadogo
- 109 InMobi - Market, Sales, Delivery , Bangalore  
407. Campaign Management at Brand Delivery-India  
408. EMEA-ANZ Delivery  
409. India Delivery Strategy and Optimization  
410. InMobi Pulse - Market Research Solution  
411. Market Intelligence

- 412. Programmatic Demand Optimization
- 413. Revenue Reporting, Report Optimizations and Supply Set-Up
- 110 InMobi - Supply Chain , Bangalore
  - 414. Business Development and supply Migration
  - 415. India Supply deliverables
  - 416. InMobi - Affiliate Partner Strategy & Operations - WadogoX
  - 417. Market Intel- Strategy & Operations
  - 418. Optimization of workflow on supply and demand side
  - 419. OPTIMIZING REVERSALS BASED ON CLICK TO INSTALL TIME ANALYSIS
  - 420. Private Market Place Programmatic Demand/Revenue Reporting
  - 421. ReTargeting Products at Inmobi
  - 422. S/D Co-ordination
- 111 InMobi - Business Development , Bangalore
  - 423. Ad Pool Enablement, Comscore POP Letter, NPS Survey, TAG
  - 424. Associate Supply-Wadogo
- 112 Intel - Computer and VLSI Architecture , Bangalore
  - 425. Automation of server platform testing and validation
  - 426. Non-Volatile Memory Platform Validation
- 113 Intel - Embedded Software , Bangalore
  - 427. Active Codec Set in Mobile Handset
  - 428. Data center optimization for customer-specific workloads
  - 429. Hardware design of Actuator Board & Dev Board for Haptics Dev Kit
  - 430. Module Testing and build for Interfacing modules of WCDMA firmware
  - 431. Seamless access to FPGA from PC firmware & Optimized learning networks for character-command Recognition
  - 432. Transmit antenna selection in Ite
- 114 Intel - GPU and VLSI Design , Bangalore
  - 433. TLM Based Emulationn Trackers for Memory/Cache Interfaces
- 115 Intel - Testing & Verification , Bangalore
  - 434. Automation and testing of Jazz
  - 435. Bring-Up of Simulation Test cases for 3GFW-CV
  - 436. Clock Design & Distribution in an SoC
  - 437. Resampling of 3D point cloud data using various techniques
- 116 J P Morgan Services - Quant , Mumbai
  - 438. 1) Scheduling Data Queries As A Service 2) Natural Language Interface to Databases
  - 439. CREDIT ANALYSIS & RISK MANAGMENT OF FINANCIAL INSTITUTIONAL GROUPS
  - 440. Liquidity Risk Oversight
  - 441. Machine Learning for Corporate Deposit Rate Modelling in Euro Area
  - 442. Makefiles Framework and Model Reporting
  - 443. Model Exposure Calculation and Reporting using Quantitative Research techniques
  - 444. PRODUCT DEVELOPMENT CUSTODY AND FUND SERVICES
  - 445. RISK MANAGEMENT TOOLS USING QUANTITATIVE RESEARCH TECHNIQUES
  - 446. Risk Management using quantitative research techniques and building tools for valuation control
- 117 J P Morgan Services -Centralized Research Group(CRG) , Mumbai
  - 447. Centralized Research Group (CRG) – Technology, Media, Telecom (TMT) Sector
  - 448. Financial Analysis of Debt Capital Market (DCM)
  - 449. Financial institutions Group At CRG
  - 450. Internship at J.P. Morgan Services
  - 451. Real Estate
- 118 J P Morgan Services - Global Markets Group(GMG) - (Markets +Risk) , Mumbai
  - 452. Assisting in Index Creation & Management and Structuring Equity Derivative Products
  - 453. CTC Credit Risk Management
  - 454. Sales and Structuring of Financial Products in South East Asia (SEA) region
  - 455. STRUCTURING OF FINANCIAL PRODUCTS FOR ASIA AND EMEA MARKETS
- 119 J P Morgan servi ces- Global research Centre(GRC) , Mumbai
  - 456. ASIAN EQUITY RESEARCH
  - 457. Economic Research

458. Equity Research
459. Equity Research and Analysis- European General Financials and Central European Banks Team
460. Quantitative and Derivatives Strategies
- 120 JDA Software Solutions , Bangalore
461. Demand Data Analysis and Forecasting
462. Demand Forecasting at JDA
463. MANAGEMENT OF THE JDA WAREHOUSE MANAGEMENT APPLICATION & TESTING
- 121 JDA Software Solutions , Hyderabad
464. ANALYSIS OF DEMAND PLANNING AND FORECASTING IN SALES SUPPORT
465. Application of Machine Learning in PRM
466. CONFIGURATION MANAGEMENT AND SOFTWARE DEVELOPMENT LIFE CYCLE
467. Mutation Testing (Proof of concept)
468. QA testing, Working on VPGGrid, Junit TestCases.
- 122 John F Welch Technology Center (GE) , Bangalore
469. Boiler circulation system
470. Design Practices for Controlling Emissions in Coal Fired Power Plants
- 123 JP Morgan Chase - Technology , Bangalore
471. Text Extraction using OCR and Document Classification
- 124 JPMC CIB Operations , Bangalore
472. Automation & Process Improvement in Transfer Agency
473. Automation and Analysis of KYC Procedures
474. Efficiency Improvement and Automation of reports at Document Management Operations.
475. Automaiion oppurtunities in financial reporting
476. Financial Reporting (Boston Team) – Process Automation
477. Process Automation in Banks
478. Process Automation of BAU activities
479. Process Improvement for FX Operations
480. robotics and process automation
- 125 Kinapse Ltd , Gurgaon
481. A TARGETED LITERATURE REVIEW ON BURDEN OF ATRIAL FIBRILLATION IN EUROPE
482. To find the burden of chronic obstructive pulmonary disease across the world.
- 126 Lavelle Networks , Bangalore
483. Implementation of Digital Marketing Strategies for Lead Generation and Effective CRM
484. Strategy on Digital Marketing with a focus on market research, database creation, e-mail marketing and lead generation
- 127 LEA Associates , Delhi
485. 73580 - DPR Preparation of Vidisha-Mehlua Section of New NH-346
486. Design, Design Review, Site Visit of Road Structures & Technical Proposal of various projects
487. Hydraulics Analysis in Highway Engineering
488. Introduction to Highway Design
489. Planning and Design of Highway Structures
490. Review and Design of Various Bridge Components; Modeling of a bridge using Autodesk Revit
491. Road Furniture Detailing
492. Two/Four laning of BRT Tiger Reserve Boundary to Bangalore (NH 209)
- 128 LEA Associates , Kolkata
493. Analysis and Design of Box Culvert
- 129 LHD INDIA , Bhopal
494. ?Development of internal invoicing system, Development of grocery ecommerce website
495. Development of internal invoicing system, Development of grocery e-commerce website
- 130 Mahle Behr , Pune
496. ASN Adherence and Warehousing
- 131 Market Data Forecast (Research Associate) , Hyderabad
497. Cards and Payments Market
498. Company profiling, report description and promos
499. Content Writing
500. Market Research and Analysis
501. PROMOTIONS & REPORT DESCRIPTION OF GLOBAL AND REGIONAL MARKETS
502. REPORT DESPRICICTIONS AND PROMOTIONS

- 132 MathWorks India Private Limited , Bangalore  
503. Advanced Coverage Features for Simulink Design Verifier
- 133 Media Iq Digital , Bangalore  
504. AUTOMATION OF SALES PITCHES FOR INDEPENDENT BODY and Standard IR Automation for DE  
505. Feature Selection Service  
506. Project 1: To automate the process repeated requests Project 2: To automate the process customized report Project 3: Insight Report Automation
- 134 MediaTek Bangalore Pvt. Ltd. , Bangalore  
507. AN Efficient Method That Reduce Unknowns To Increase The Compression Efficiency  
508. DIGITAL MACRO IMPLEMENTATION  
509. L4 PS Log Automation for Smartphone Modems  
510. Physical Design Integration  
511. Physical Design of a Digital Macro  
512. RTL SYNTHESIS AND LEC OF HDL DESIGN  
513. SEMI CUSTOM BLOCK LEVEL PHYSICAL DESIGN IMPLEMENTATION OF A DIGITAL BLOCK  
514. SYNTHESIS, LOGIC EQUIVALENCE CHECK AND STATIC TIMING ANALYSIS
- 135 Mentor Graphics , Noida  
515. Development of a UVM environment for CAN Verification IP  
516. UVM based verification of I<sup>2</sup>C (Inter-Integrated Circuit) Protocol
- 136 Mercedes Benz , Bangalore  
517. 1D-3D coupling in Underhood simulations  
518. Finding optimised stimulation values of arm to keep it stationary  
519. Flow and thermal analysis of HVAC right side duct of BR-177( A-class)  
520. Functional Evaluation & Comparison of different LS-DYNA material cards to characterize PC-ABS  
521. NUMERICAL MODELLING OF A-PILLAR OVERFLOW  
522. Optimization of Activation values for Posture Control of Arm  
523. Panel Heating
- 137 Microsoft india Development center , Bangalore  
524. Automated bootstrapping of microservice clusters in pilotfish environments  
525. Intelligent Feeds  
526. Unified Store
- 138 Microsoft India Development Center , Hyderabad  
527. API Level Authorization on Hardware Proxy  
528. Contributions to Service Fabric  
529. Holo Companion  
530. Kaizala Custom Actions  
531. SCOM HTML5 Web Console  
532. Topic Management Portal
- 139 MoEngage India Pvt. Ltd. , Bangalore  
533. Automatic testing and documentation for python files  
534. Multi Channel Push Notification Delivery
- 140 Morningstar , Mumbai  
535. Index - Operations  
536. Index Technology Operations  
537. NPD Monthly Data Refresh Process, Geo-segment Normalization for a project named "EDM"  
538. Transforming Data into solutions for Morningstar Indexes client  
539. Vendor Fundamental Data Methodology Differences
- 141 MSCI (Global Implementation Services) , Mumbai  
540. IMPLEMENTATION OF RISK MANAGEMENT APPLICATIONS FOR LARGE INSTITUTIONAL CLIENTS  
MANAGING MONEY THROUGH INVESTMENTS IN FINANCIAL MARKETS
- 142 MSCI (IMR) , Mumbai  
541. IMR Projects  
542. Index Research – MSCI QER
- 143 **MSCI (NPD "Index Research) , Mumbai**  
543. INDEX RESEARCH  
544. MSCI WOMEN'S LEADERSHIP AND CUSTOM ESG LEADERS INDEXES " SEMI ANNUAL INDEX  
REVIEWS



- 144 MSCI Financial Planning & Analysis , Mumbai  
545. What I Learnt at MSCI
- 145 Mytrah Energy (India) Private Limited , Hyderabad  
546. Generating Execution plans for installation of solar rooftop plants
- 146 National Aerospace Laboratories , Bangalore  
547. Enhancement of Optical properties of metals by heat treatment for high temperature solar absorber applications  
548. Experimental Investigation of Fluid Structure Interaction in Flapping wing MAV
- 147 National Centre for Biological Sciences , Bangalore  
549. Construction, Characterization and Validation of Channelrhodopsin in Purkinje neurons  
550. GENOME-WIDE DISTRIBUTION OF TAXONOMIC AND DOMAIN ARCHITECTURAL VARIATIONS AMONGST HOMOLOGUES OF PROTEIN DOMAIN SUPERFAMILIES: Phylogenetic analyses and towards structure determination of specific examples  
551. Host Plant Mediated Alterations in Antimicrobial Peptides Secretion Of *Spodoptera litura*
- 148 National Chemical Laboratory , Pune  
552. Data Modelling Using Python  
553. EVALUATION OF OPTIMISED DLNNMPC COUPLED WITH SIMULATED ANNEALING TECHNIQUE FOR CONTINUOUS STIRRED TANK REACTOR SYSTEM
- 149 National Council of Applied Economic Research , Delhi  
554. Direct Benefits Transfer Readiness Index Project  
555. Regional Tourism Satellite Account Phase 2  
556. Upgradation of Existing Government Industrial Training Institutes into Model ITIs
- 150 NetApp , Bangalore  
557. Serial Elimination of WAFLIron and Corruption Avoidance on Data ONTAP  
558. Storage Efficiency in Cloud using Trusted Fingerprint  
559. Unit Test and SVM REST API in ONTAP  
560. Workload Signature for Storage System  
561. Workload Signature for Storage System
- 151 NetSkope Software India Pvt. Ltd. , Bangalore  
562. Implementing Cloud Security Standards for AWS and Azure  
563. Implementing Security Standards for Cloud platforms
- 152 Next Education India Pvt. Ltd. , Hyderabad  
564. Creation of academic data warehouse  
565. Kafka Cluster Migration and Central Log Management
- 153 Nomura - FinTech , Mumbai  
566. Nomura FinTech Initiatives  
567. Equity & Derivatives Product Control - PnL Production
- 154 Nomura Global Markets , Mumbai  
568. Automating the Process of Pricing Structured Financial Notes  
569. Automation of Report Booklet and Interest Rate Derivative Pricing  
570. Global Risk Report Automation  
571. Structured Deal Review-Equity
- 155 Nomura Global Risk , Mumbai  
572. "RISK AND CONTROL OVERVIEW  
573. Business Objects Migration and Margin Methodology Development for Financing Risk  
574. Market Risk Powai Credit  
575. Python based software to access Risk Database  
576. Risk and Control: Regulatory Compliance  
577. Risk Monitoring Process-Credit Risk  
578. STRESS TEST and SCENARIO Analysis  
579. TOOL INTEGRATION FOR TEAM HMDG AT NOMURA  
580. Using Python for Risk Data Compliance
- 156 Nucleus Software Export Ltd , Noida  
581. Automatic Query Generation Via NLP  
582. Banking Query Handler using Deep Learning and NLP  
583. Hibernate search integration with Elastic search and implementation of elasticsearch cluster server  
584. Interactive User interface for Object Relational Mapping

- 585. Log management and analysis using ELK stack
- 586. Network development for loan lending portal
- 587. Web Session Replication
- 157 Nutanix Technologies India Pvt. Ltd. , Bangalore
- 588. AUTOMATION AND PERFORMANCE BENCHMARKING OF NUTANIX CLUSTER CHECKS
- 589. Containerisation of a Micro-services application
- 590. Copy Data Virtualization
- 591. Development of modules and optimizations to enhance the SIZER application
- 592. Development Work on Billing & Onboarding platform for Xi Cloud Services
- 593. Distributed cluster management system
- 594. Ergon and Acropolis Improvements
- 595. File Services
- 596. FlatBuffers in Insights Data Fabric
- 597. Foundation Central
- 598. Full Stack Web development
- 599. HyperV the Microsoft Hypervisor, Firewall and Network Segmentation
- 600. Karma - A Unit Test Monitoring System; Minio: Object Versioning
- 601. Machine Learning based Caching
- 602. Panacea Improvement
- 603. Sizer Application
- 604. Tools and Automation, Data Science Pipeline to analyze Campaign Effectiveness
- 605. Unit and Functional tests for SMB Adapter
- 606. Unit Testing and Test Automation of Nutanix Cluster Checks
- 158 Nvidia Graphics - Hardware , Bangalore
- 607. A Tool To Verify The GPU Product Specificationsâ€™ Implementation As Defined In Firmware
- 608. Analyzing latency of memory requests between different GPU units
- 609. Automate Connectivity Check
- 610. Carmel CPU safety verification
- 611. Chip Power Characterization Automation
- 612. Clock Estimation
- 613. Compliance with MISRA Guidelines & RAS Verification
- 614. DCO Safety
- 615. DCO Safety and Verification
- 616. DESIGN AND MODELLING A SWITCH OF GPU MEMORY SUBSYSTEM
- 617. Full Chip Verification - Xprop and GLS
- 618. GPU Power Estimation
- 619. GPU: Low Power Design and Static checks
- 620. GUI Development for SoC design manipulation
- 621. Hybrid FPGA and USB OTG on FPGA
- 622. Improving the PCIe Testbench
- 623. Lint checks on RTL design
- 624. Memory Subsystem Optimization for Graphics Workloads
- 625. MEMORY SUBSYSTEM PERFORMANCE VERIFICATION
- 626. MKPRIV to MKPRIV2 migration
- 627. Modelling of PCIe End Point and Root Complex
- 628. Performance Verification of Crossbar Switch
- 629. Re-Architecting Clocks Verification Components to Optimize Simulation Runtime on Various Testbenches
- 630. Safety, Test Generation, Performance Analysis for Xavier
- 631. Tegra Memory SubSystem Design
- 632. TEGRA PCIe Validation and Verification
- 633. Tegra SoC: Retiming and Padding
- 634. Test Optimization for Clocks and Reset Unit
- 635. Testing the CPU performance and developing the SoC debug interface tool
- 636. Timing and Noise Analysis of Memory Subsystems
- 637. VALIDATION AND FUNCTIONAL SAFETY OF XAVIER SoC
- 638. Verification and coverage of upstream PCIe transactions

- 639. Verification of a cycle accurate model for a hub arbiter
- 159 Nvidia Graphics - Hardware , Hyderabad
  - 640. AUXP Design Ness explorations
  - 641. Formal Verification of CVC module
- 160 Nvidia Graphics - Hardware , Pune
  - 642. Perf-Inspector : Testing and development)
- 161 Nvidia Graphics - Software , Hyderabad
  - 643. Bluetooth Test Suite Automation
  - 644. System software
- 162 Nvidia Graphics - Software Sy stems , Pune
  - 645. GameStreaming with MediaCodec NDK APIs
- 163 Nvidia Graphics -Software , Bangalore
  - 646. Diagnostics and Error Reporting and Handling in QNX for Self-Driving Platform and Throughput between Linux 4.9 based PC and Network-attached-Storage
  - 647. Docker Support for Nvidia applications.
  - 648. Enhancement of Video decoder component in the stack for Automotive Software
  - 649. Feature Enhancement on NTG6 Vehicle Infotainment System
  - 650. Logging using Log4perl and strict check with option processing
  - 651. PORTING OF NEW GCC TOOLCHAIN & BUILDING A ROS FRAMEWORK FOR YOCTO DEVELOPMENT ENVIRONMENT
- 164 PAYPAL , Bangalore
  - 652. Billing Admin
  - 653. Billing Admin Tool
  - 654. Customer Insights
  - 655. Developing a Node Web Application Module
  - 656. Development of Latency Tool using PIG Script for assessment of logs
  - 657. Doctor â€™ Build Scripts for Easy Reporting
  - 658. IMPROVING TIME-TO-MARKET/ MTTR USING SERVICE VIRTUALIZATION
  - 659. Millennium Fulfillment Correction
  - 660. One-Click Reproduction of Issues
  - 661. PayPal MicroApps
  - 662. Stored Value Admin Tool
  - 663. Web application to manage reward programs and API response mocking with tracking functionality in iOS application
- 165 Paypal , Chennai
  - 664. 1) Using Spark to find the contributing fields of transactions , which are causing the declines. 2) Benchmarking Simulator. 3) POC of Hyperledger Blockchain(Fabric)
  - 665. Automating eKYC While User Onboarding
  - 666. DEVELOPING A DASH BOARD FOR ELASTIC SEARCH
  - 667. Exception Records â€™ Analysis and Remediation
  - 668. GALILEO
  - 669. Hercule Poirot: Controlled Delivery Tool
  - 670. HERCULES POIROT: Controlled delivery tool
  - 671. Loss Forecasting Tool
  - 672. Making PayPal Payment Switch more resilient to transaction failures by enforcing a single threshold across multiple payment channels
  - 673. Masking Sensitive Data and Developing a Search Engine
  - 674. MoneyAdmin tool Enhancement And SOR FT Suit
  - 675. Omni : A computational knowledge search engine for PayPal
  - 676. Payouts Node js Application Development
  - 677. Prediction of high valued merchants
  - 678. Seller Risk Action Monitoring
- 166 Perceptive Analytics , Hyderabad
  - 679. Internal Accounting Tool for Quick book Upload and Excel automation projects.
  - 680. Report on Tapered Quote Breakout Worksheet Tool and Jobs Binning Tool.
  - 681. Time Tracker Tool
- 167 Petasense - Embedded Software , Bangalore
  - 682. Development for Petasense Webapp

- 683. Battery Life Prediction and Battery Anomaly Detection
- 684. Web development
- 168 Petasense - Services & App Development , Bangalore
  - 685. Full Stack Development
  - 686. REST API generation for microservice
- 169 Pfizer Ltd. , Chennai
  - 687. COMMON DEFICIENCY TRENDS IN REGULATORY SUBMISSIONS FOR ORALS AND PARENTERALS IN US & EUROPE AND STRATEGIES FOR IMPROVING THE DOSSIER CONTENT FOR A FASTER APPROVAL.
  - 688. REGULATORY LANDSCAPE IN THE POST APPROVAL CHANGES OF ORALS AND PARENTERALS IN MAJOR MARKETS – US, EU AND JAPAN
  - 689. Regulatory requirements for combination products in US and Europe markets.
  - 690. Regulatory Requirements for Complex Site Transfer Project – Parenterals (aseptic filling and terminally sterilized products)
- 170 Piramal Group , Mumbai
  - 691. Credit Fraud detection and Identity Authentication scorecard
  - 692. Influencer Analysis and Churn predictor
  - 693. Plugin to import raml string into postman app
  - 694. Unit and E2E tests for Postman app codebase and Tabs redesign in Postman app.
- 171 PricewaterhouseCoopers (PWC) , Gurgaon
  - 695. Energy Efficiency
  - 696. Independent Review of energy audit 2015-16
  - 697. IREA of Rajasthan Discoms FY 2015-16
  - 698. Prepration of Techno Economic Feasibility Report (TEFR) for te development of a Greenfield Airport near Jewar
- 172 PricewaterhouseCoopers (PWC) , Hyderabad
  - 699. Faecal Sludge and Septage Management
  - 700. Uttar Pradesh Infrastructure Plan
- 173 PricewaterhouseCoopers (PWC) , Mumbai
  - 701. Framework for benchmarking trucking sector across the globe and study of east coast ports
- 174 PriceWaterHouseCoopers , Kolkata
  - 702. Industry 4.0 and its plications on Bangladesh and other developing nations
- 175 Propeluss , Pune
  - 703. Analysis of Startups for acquisition and benchmarking key metrics of startups to create select pools
  - 704. Benchmarking startup funding metrics and analysis of startup data for strategic partnerships
- 176 Qualcomm India Pvt Ltd - Bangalore , Bangalore
  - 705. 1) Inverse Square Root Implementation 2) Computational Zoom Framework
  - 706. Automation of Physical design Library Generation
  - 707. FUNCTIONAL COVERAGE AUTOMATION FOR SOC BUS VERIFICATION
  - 708. LATENCY ANALYSIS AND OPTIMISATION OF CACHE MEMORIES
  - 709. Page Table and Stream Table Generation
  - 710. Power Prediction of Embedded Scalar and Vector Hexagon DSP Processor
  - 711. SoC Modelling on SysML
  - 712. Static Timing Analysis and Validation using PrimeTime
- 177 Qualcomm India Pvt Ltd - Bangalore , Hyderabad
  - 713. 1. Conversion of a decoder algorithm(RSSE) from C to Octave. 2. Analysis of conflicts in a multi-RAT scenario. 3. Fixing a test framework and add XML Support
  - 714. Cell acquisition for NB-IoT LTE Systems
  - 715. Cell Searcher for NB-IoT
  - 716. Data Mining for Issue Reproduction
  - 717. Full stack development for Call Flow data
  - 718. Real-Time Image Recogniton
  - 719. Test Automation Frameworks for Camera and Video Systems
  - 720. Timeline profiling optimization of LTE modem firmware
  - 721. Wifi calling / RoHC Tool
- 178 Qualcomm India Pvt Ltd - Chennai , Chennai
  - 722. Synthesis, STA and formal verification of low power audio chip

- 179 Qubole , Bangalore  
723. Containerization of processes and deployment of Qubole Data Services (QDS) on Kubernetes  
724. Indexing of Logs and Retrieval of Content
- 190 Rakuten - Artificial Intelligence , Bangalore  
725. Interactive Chatbots using IBM Watson Assistant  
726. Monetizing Shashinkan
- 191 Rakuten Inc , Bangalore  
727. BOT Detection and Mitigation
- 192 Rakuten Inc , Bangalore  
728. QR-Authentication and TOTP based 2-FA
- 193 Rakuten -Human resources& operations and recruitment , Bangalore  
729. Driving the key performance indicators analysis of Rakuten India Enterprise Private Limited  
730. Recruitment and Employer Branding  
731. Recruitment and Selection Process at Rakuten India
- 194 Rakuten -Mobile App , Bangalore  
732. Mobile Application Development using React Native and Android Studio
- 195 Reflexis Systems I ndia Pvt Ltd. , Pune  
733. A Report on Data Analytics  
734. Automation of deployment of reflexis products on cloud  
735. Automation of Product development  
736. Automation of the deployment process of the products of Reflexis  
737. Data Analytics  
738. Data Streaming Using Data Streaming Technologies  
739. Design and development of a time series analysis and forecasting engine  
740. Effective dated scheduling model used in Reflexis Workforce Scheduler  
741. Full stack development in retail  
742. Predictive Analytics  
743. Statistical Matching and Expression Parsing  
744. Web Tech. and Java tech.  
745. Working on Reflexis Workforce Scheduler
- 196 ReportGarden Technologies Pvt. LTd. , Hyderabad  
746. CI and Test Automation Procedures  
747. Data Engineering  
748. Product Management and Analysis, ReportGarden  
749. Product Management and Marketing, ReportGarden  
750. Quality Assurance and Automation Scripts
- 197 Rivigo Tech , Gurgaon  
751. Android and Web Application Development  
752. App Development using React  
753. Front-end Development- Hybrid App  
754. Unit test and Application Monitoring
- 198 S.R Batliboi & Associates LLP , Bangalore  
755. DESCRIPTIVE ANALYTICS USING BUSINESS INTELLIGENCE TOOLS  
S.R Batliboi & Associates LLP , Chennai  
756. Improvement of Audit Procedures and Customer Service Using Machine Learning and Big Data
- 199 Samsung R &D Insti tute - CP (Communication Protocol) , Bangalore  
757. DPD for Concurrent Multiband 3GPP NR BS Wireless System
- 200 Samsung R &D Institute - Image & Video Processing , Bangalore  
758. 3D Reconstruction using optimal set of images  
759. AI BASED COMPRESSION  
760. Corpus Crawling And Preparation  
761. Developing samay applications based on text analysis  
762. Fast and cost effective large scale image similarity search solution  
763. Human Pose Estimation via Deep Neural Networks  
764. Improving the Performance of Random Progressive Meshes  
765. Semantic Segmentation using Deep Neural Networks

- 201 Samsung R &D Institute - Intelligent Services , Bangalore  
766. Automatic Speech Recognition to Natural Language Understanding  
767. Comparative Analysis of Machine Learning Techniques in Smart Living Scenarios  
768. Distraction Test Lab Setup  
769. Identification of Open Phrases and Intent classification of utterances using Siamese Network  
770. Implementation of Data Structures for Bixby™'s RNLU  
771. Smart search in bixby
- 202 Samsung R &D Institute - Networks , Bangalore  
772. 3D Dynamics and Realistic Rendering  
773. 5G CU Platform Development  
774. Android Performance Management Using Reinforcement Learning  
775. Development of thread management module for a Deep- Learning framework  
776. DPD for Concurrent Multiband 3GPP NR BS Wireless System  
777. EVALUATION OF DOCUMENT SIMILARITY METHODS FOR BIXBY  
778. IDENTIFICATION OF OPEN PHRASES IN UTTERANCES AND IMPROVISATION OF SENTIMENT ANALYSIS MODELS THROUGH TRANSFER LEARNING  
779. Memory Allocation Schemes for a Multi Processor Real Time Operating System  
780. ONAP Deployment  
781. Online concept drift  
782. Point Cloud Compression  
783. Real Time Encrypted Internet Traffic Classification  
784. Real Time Multi Sensor Based Object Detection using Deep Neural Networks  
785. Resource Based Application Classification  
786. Samsung Keyboard Optimization  
787. Study and Simulation of Multiuser Superposition transmission in LTE System  
788. Text classification and ranking  
789. To determine Facial Action Units in real time on an embedded device  
790. Unification of NMS for different Management Protocols  
791. Using Containers in 5G Network for Log Collection, setting up Prometheus on a server, using Scapy as a tool in 5G, and working with Open-nFAPI
- 203 Samsung Semiconductor India R&D Center , Bangalore  
792. Denoising in CMOS Image Sensors  
793. Design Verification  
794. JTAG Controller  
795. Physical Design Flow
- 204 SanDisk , Bangalore  
796. Development of test screens for an upcoming uSD/SD controller  
797. Development of testing methods for USB flash memory  
798. PRODUCT DEVELOPMENT AND MANAGEMENT OF 3D NAND BASED USB PRODUCTS  
799. Qualification of NAND Flash for BiCS technology for CSSD Products
- 205 Sattva Media & Consulting Pvt Ltd , Bangalore  
800. Impact Assessment of Dell's CSR Programs  
801. Project 1: Rural Livelihoods- Godrej (Knowledge Team), Project 2: One Million Voices- In- House (Knowledge Team), Project 3: ISDM (Research Advisory Team), Project 4: EdelGive Foundation (Knowledge Team), Project 5: Study on Philanthropy in India (Research Advisory Team)  
802. SelectHER
- 206 Servicenow Software Development India , Hyderabad  
803. Automation of Incident Classification  
804. Flow Designer Content on ServiceNow Platform  
805. Integeration of 'Service Now Thing' with Now-Platform  
806. Understanding internals of ServiceNow ITSM India Team  
807. Shell Technology Center , Bangalore  
808. Predicting the time scale of devolatilization of commercially sized biomass particles
- 207 SKF , Haridwar  
809. Quality Improvement of Bearing Manufactured in J1 Channel: A Case Study
- 208 SKF India Ltd. , Bangalore  
810. WASTE HEAT RECOVERY FROM AIR COMPRESSOR AFTER COOLING SYSTEMS FOR RUNNING AN ADSORPTION CHILLER – A THEORETICAL ASSESSMENT

- 209 Skoda Auto India Pvt. Ltd. (Chakan) , Pune  
811. Connected Cars Strategy for INDIA 2.0 Projects, Competitor life cycle analysis
- 210 Skoda Auto India Pvt. Ltd. , Aurangabad  
812. Digitization of Training Sheet and Monitoring and Reduction of Repair work and scratches  
813. Implementation of Inventory Management System & other Improvement areas in Maintenance  
814. Standard work content calculation for Audi Q5 - NG
- 211 Skoda Auto India Pvt. Ltd. , Mumbai  
815. Monitoring and Analysis of Bodyshop, Campaign, Special Tools and DISS tickets  
816. Monitoring And Analysis of Customer Concerns  
817. Network Projects, Audit Readiness and India 2.0  
818. Product Marketing  
819. Project management for Network quality projects
- 212 Sokrati Technologies Pvt. Ltd. , Pune  
820. Business Development in Sokrati  
821. Search Engine Marketing, Analysis & Optimization  
822. Social media marketing execution & analysis  
823. Third party integration and optimization on programmatic
- 213 Spicer India Ltd. , Jodali  
824. Work Standardization
- 214 Spicer India Ltd. , Pune  
825. SUPPLY CHAIN CONSOLIDATION AND PRODUCTION PLANNING  
826. SRF Ltd. , Gurgaon  
827. Application of various concepts of chemical engineering in Multi-purpose plant
- 215 STAR TV , Bangalore  
828. Ad Targeting and Recommendor Evaluation Framework
- 216 StateStreet Global Advisors , Bangalore  
829. Active Passive Comparison  
830. Multiple Projects Undertaken.
- 217 Supply Basics - Business , Bangalore  
831. CATEGORY RESEARCH WITH FOCUS ON LIGHT ENGINEERING SECTOR & LAST-MILE DELIVERY ANALYSIS FOR THE E-COM SECTOR  
832. Customer Success Management for online sales and Cataloguing  
833. Enterprise Sales  
834. Native and web application development
- 218 SupplyBasics - E-Commerce , Bangalore  
835. Category Management and Digital Marketing  
836. Process flow and performance tracker-Internal Dashboard
- 219 Symantec Software Solutions Pvt. Ltd - Data Analytics , Pune  
837. Anomaly Detection based on Machine Learning  
838. Dashboard v2.0, Tracking Page and pings abnormality detection  
839. Implementing iris recognition system using Convolutional Neural Network
- 220 Symantec Software Solutions Pvt. Ltd. - Data Structures and Algorithms , Pune  
840. Content aware data loss prevention via screen sharing and print screen  
841. Dynamic data repositories for data classification  
842. Encrypted File Classifier  
843. Mobile App (iOS) for Drive Encryption recovery  
844. TWO FACTOR AUTHENTICATION  
845. Using DLP products on Hadoop Framework and MongoDB
- 221 Synergiz Global , Hyderabad  
846. Business Development, Product development and project monitoring  
847. PS-II Final Semester Report  
848. Synopsys India Pvt. Ltd. , Hyderabad  
849. PDK Development and Validation
- 222 TapChief , Bangalore  
850. Operations Processes
- 223 Tata Autocomp Systems Ltd. , Pune  
851. Cost Saving in Strategic Sourcing at Central Purchase, Tata Autocomp Systems Ltd.  
852. E-learning and LMS Upgradation for I-edge learning

853. Verification of Horizontal Deployment at Fabrication suppliers
- 224 Tata Chemical Innovation Center , Pune
854. Development of encapsulation/coating solution for minerals and vitamins for food fortification
855. Modelling physicochemical properties of Fructooligosaccharides (FOS) using thermodynamic property models
- 225 Tata Motors Ltd. , Jamshedpur
856. PIST improvement of SFC BIW
857. Process control, FMEA control plan of SFC & other trim lines with special focus on door force reduction
- 226 Tau Films India Pvt. Ltd , Hyderabad
858. Development of VFX Pipeline at Tau Films
- 227 Techure Structures Pvt Ltd. , Nagpur
859. 3D MODELLING AND SUSTAINABLE ANALYSIS OF A BUILDING
860. 3D virtual modelling of a building using BIM ( Revit ) and its sustainable analysis
861. Adopting Building Information Modelling (BIM) for Infrastructure projects
862. ASI Modelling
- 228 TESCO Hindustan Service Centre , Bangalore
863. Customer Sentiment Analysis
864. Improving Customer Experience of Shoppers by Family
- 229 Texas Instruments (I) Pvt. Ltd. -Analog , Bangalore
865. Data Analysis on Final Test for Integrated Circuits
866. Design of Software for Robotic Bench Handler
867. Development of software for automation of AC validation tests
868. FPGA Based Test Methods For ADC
869. Overcome and conquer the current day System Design Analysis Challenges using VSDP
870. Reference design for current sensing module for solar inverters.
871. Robust multi-channel voltage translator design and its verification
872. Validation of Cell Balancing in Battery Monitoring and Protection IC
873. Power supply design for gate-drivers
- 230 Thornton Tomasetti , Mumbai
874. A Report on Shop Drawing Review of Academic Building in UIC and REC
875. shop drawing review of UIC academic and residential building and REC Project
- 231 Timelnc.(Time Analytic & Shared Services Private Limited) , Bangalore
876. Procurement - Operations
- 232 Tonbo Imaging Pvt Ltd. - Embedded Systems , Bangalore
877. Auto-Focus of a Lens (Implementation on FPGA)
878. Using MPU 9250 to get real time motion data
879. Weapon Shock Simulator and Ethernet Bootloaders
- 233 Toshiba Software (India) Pvt Ltd , Bangalore
880. Programming and testing of NAND Firmware
- 234 Truecaller , Bangalore
881. KNOWLEDGE GRAPH DATABASE & GOOGLE CLOUD MIGRATION
882. MESSAGE CLASSIFICATION BASED ON CONTENT
- 235 UBS , Pune
883. COST REPORTING FOR RAS IT REPORTING TEAM, REPORTING AUTOMATION and RAS IB COSTS
884. LRD AUTOMATION PROJECT USING PYTHON FOR RAS TREASUR
885. RAS\_IT\_JV
886. Report publication and automation using Business Objects and ExcelMacro
- 236 United Airlines Business Services Pvt. Ltd. , Gurgaon
887. Irregular Operations Analytics
888. Using machine learning for optimization of Contact Centre operations
- 237 UPGRAD , Mumbai
889. Content and Academic Course Development: Big Data Engineering
890. CONTENT AND ACADEMIC COURSE DEVELOPMENT: BIG DATA ENGINEERING PROGRAM
891. Content creation for PG Program in Management with Specialization in Sales and Digital Marketing with IMT, Ghaziabad
892. Content Delivery for B2B Partnerships
893. Development of academic content for Big Data engineering



894. Facilitating and collaborating with the career services and B2B team for engaging candidates in career transitions, developing content for the B2B clients TALLY and GSK
895. Technology Business Management Program with SPJIMR
- 238 Urban Clap , Gurgaon
896. Content Delivery Architecture
897. Modular Dashboard Architecture
898. Tackling content theft issue in Urbanclap media database
- 239 UST Global - Business Domain( Cochin) , Cochin
899. BOTS EDI TRANSLATOR, INTERACTIVE LEARNING AID
- 240 UST Global - Chennai , Chennai
900. Custom Report, BOTS EDI TRANSLATOR
- 241 UST Global Infinity labs - Cyber security , Thiruvananthapuram
901. E-billing
- 242 UST Global Infinity IAbs - Machine learning , Thiruvananthapuram
902. Computer Vision
903. Data Quality Solutions
904. Data Quality solutions using Machine Learning
905. Testing Dashboard
906. U-Store
- 243 USt Global Infinity Labs -Block Chain , Thiruvananthapuram
907. CHATBOT WITH GRAPH DATABASES
908. Data Quality solutions using Machine learning
909. Face auto recognition system
910. ZERO KNOWLEDGE PROOF ON BLOCKCHAIN
- 244 USt Global Infinity labs -Internet of Things , Thiruvananthapuram
911. Knowledge Management System Bot
912. U store
- 245 UST Global Infinity Labs -Robotics , Thiruvananthapuram
913. Creating user experience with VR(Virtual Reality)
914. GRAPH MODELING
915. Knowledge management system bot
- 246 UST Global - Infinity Research - 3D printing , Thiruvananthapuram
916. Testing dashboard
- UST Global Infinity -Cloud Computing , Thiruvananthapuram
917. AI Based Bug Tracking System
918. E-Bill project
- 247 UST Global -Infinity lab -Artificial Intelligence , Thiruvananthapuram
919. Competitor Analytics
920. Computer Vision Project
921. Ebill
922. Graph Modelling and Chatbot
923. Quality Assurance Bot
924. Testing Dashboard
925. USTore
- 248 UST Global -Infinity Labs - Augmented Reality , Thiruvananthapuram
926. AI Based Bug Tracking
927. AR REVIEW APPLICATION , UST SMART CANTEEN APPLICATION
928. Data Quality Solutions using Machine Learning
929. E-bill Application
930. Knowledge management bot and Graph modelling
931. Mobile AR
932. SCM Blockchain
- 249 Veritas Software Technologies India , Pune
933. Cloud Certificate Management in a Veritas Software
- 250 VESTAS TECHNOLOGY LTD. , Chennai
934. Analysis of Icing Effects on Wind Turbines
935. Design of Wind Turbine Tower and Foundation
936. Loads calculation on wind turbine

937. RNA Loads Evaluation of different Onshore Site-Specific Wind Turbines
- 251 Viacom18 Media Pvt. Ltd - Corporate Strategy , Mumbai
938. Data Analytics and Modelling
- 252 Viacom18 Media Pvt. Ltd - Corporate Strategy , Mumbai
939. Data extraction, handling and analysis using BARC Media Workstation
- 253 Viacom18 Media Pvt. Ltd - Digital Ventures , Mumbai
940. ANALYTICS IN DIGITAL VIDEO ON DEMAND SERVICES
941. Automated Classification of Viewership Data on Data Management Platform
942. Business Strategy For Voot
943. Research Driven Advertisers Insights for VOOT
944. Web Development and Product Analytics for VOOT
- 254 VisionÂ IndiaÂ Foundation , Delhi
945. Feasibility Study of Good Governance Yatra covering 9 States, Alumni Portal for Vision India Foundation, Policy BootCamp 2018, EKYAM- Indian Student Leaders Conclave
- 255 VMS (Vakil Mehta Seth) Consultants Private Limited , Mumbai
946. Analysis and design of High Rise Residential and Commercial Structures
947. Analysis and Design Of Structures
- 256 VMware Software India Pvt. Ltd. , Bangalore
948. Exception Resolution System
949. Horizon View Service
950. Live Migration – Snow Motion
951. Pre Check-in New Code Coverage Analysis Tool
952. Simulation of Hybrid Clouds on Nimbus
953. Swagger Documentation and Software Development
954. Synchronizing Okta applications to v-IDM
955. Testing of Elastic Farm Management Algorithm
- 257 Vymo , Bangalore
956. Intelligent agents using suggestions and next best actions
- 258 Walmart Global Technology Services , Bangalore
957. Canada Store Finder
958. Electrode API Migration
959. ELK stack
960. Grocery Search optimisation app
961. Location management system
962. Logistics System - Order Processing
963. Store Finder
964. TIBCO BW MIGRATION TO APACHE CAMEL
965. Voice Application for Order Fulfilment
966. Widget development, Automation and Integrations
- 259 Wealth India Financial Services Pvt. Ltd. , Chennai
967. Concept Design Creation for Product Modules
- Xilinx India Technology Services Pvt. Ltd. , Hyderabad
968. Performance analysis of interconnect
969. Real Time Operating System
970. Static Timing Analysis
- 260 Zendrive India Pvt Ltd , Bangalore
971. 1.) Implementing Zendriveâ€™s event detectors (Collision Detector, HardTurn Detector) in C++. 2.) Worked on C++ implementation of signal processing pipeline of Zendrive.
972. Autoscaling
973. Zendrive Logger Project
- 261 Zeotap India Pvt. Ltd. , Bangalore
974. Automation Framework for API Validation
975. Zeotap Audience Targeting
- 262 Zinnov Management Consulting Pvt. Ltd., , Bangalore
976. Draup Platform
977. Generating Account Deep Dive Reports and Product Mapping for Sales Enablement Platform
978. Generating Account Deep Dive Reports for Customer Queries
- 263 Zynga Game Network India Pvt. Ltd. , Bangalore
979. GDPR Compliance Service

LIST OF PROJECT ASSIGNMENTS FOR FIRST SEMESTER 2018-2019

- 1 Acko General Insurance Ltd.,Bangalore
  1. Analytical Overview and New Strategic Development
- 2 Aditya Auto products & Engg (I) .P.Ltd.,Bangalore
  2. Analysis and Simulation of Mechatronic Systems
- 3 Aditya Birla Group -Data and Analytics,Bangalore
  3. Data Analysis for Quality Prediction
  4. Text Analytics for Business Solutions
  5. Text Analysis
  6. Video Analytics
- 4 Aditya Birla Insulators,Halol
  7. Metal Caps Weight Minimization
  8. Pugmill Standardization and Blunger Efficiency
  9. Reduction Of Reglaze Rejections
  10. Agitator design and ball mill standardization
  11. REDUCTION OF REWORK IN HOLLOW INSULATORS AFTER ASSEMBLY STAGE
- 5 Aditya Birla Science & Technology Company Ltd.,Mumbai
  12. DEVELOPMENT OF A METHOD TO MEASURE LUSTRE OF DOPE DYED VISCOSE FIBRES
  13. Development of predictive process model for Aluminum smelter
  14. Synthesis of nickel nanoparticles over SS support
  15. Creating a Database for the Automatic Cyclone Modeling and Simulation Software
- 6 Adobe Systems,Bangalore
  16. JIRA and WIKI search engine integrate on Slack
  17. Auto Coloring
  18. Delta Sync Service
  19. gITF Rendering in Augmented Reality
- 7 Adobe Systems,Noida
  20. IOS APP DEVELOPMENT AT PHOTOSHOP EXPRESS TEAM- ADOBE
  21. Adobe Photoshop Express
  22. Reinforcement Learning Algorithms
  23. A STUDY ON DESIGN AND DEVELOPMENT OF MOBILE APPLICATIONS
- 8 AFour Technologies,Pune
  24. AFour blockchain
- 9 Agarwals Healthcare Limited,Chennai
  25. Use of augmented reality in ophthalmic examinations
- 10 Altair Engineering India Pvt. Ltd. - Software Division,Bangalore
  26. Joint Wizard for load extraction
  27. Addition of Portable Batch System as a cluster manager in Apache Spark
- 11 Amazon Business Intelligence,Hyderabad
  28. Efficient deliveries in an E-commerce environment using Data Science and Machine Learning
- 12 Amazon Development Center,Bangalore
  29. SNL-Management
  30. Enable multi factor authentication from YMS(your memberships and subscriptions) page
  31. Providing multi-merchant support to e-waybill generation
  32. Operation Excellence Improvements
  33. Generation of Reports and Simple Issue Router Service
  34. UI design for feature engineering service.
  35. PAYSTATION CONSOLE CHANGES and BUSINESS PROFILE AUTHORITY SERVICE[BPAS] – VALIDATION RULES
  36. Enhancements in Notification System
  37. Building an Audit Tool
  38. WORLDWIDE COMMUNICATION REFRESH
- 13 Amazon Development Center,Delhi
  39. Payee Central Invoice Approval Workflow
  - 40.
  41. Search Invoice Information Projects

42. FULL STACK WEB APPLICATION DEVELOPMENT USING SPRING BASED FRAMEWOK (HORIZONTE)
- 14 American Express - Big Data Labs (BDL),Bangalore
43. SNAP (Short Noisy text Analytics Portal)
44. Multiclass classification in XGBoost
45. Automatic text summarization
- 15 American Express India -Risk Information Management -Capabilities(RIM -C),Gurgaon
46. Case Review Report Generation - Enhancement Tool
47. Automate of Risk Exposure Simulation
- 16 AmericanExpress -RiskInformation -Management -Capabilities(RIM -C),Bangalore
48. Capabilities creation in Big Data Platform
49. Process Migration to Big Data Platform
- 17 Amrut International,Gandhinagar
50. OPTIMISATION OF MACHINE HANDLING AND LABOUR COST TO IMPROVE IN AUTOMATIC MACHINERY HANDLING AND TO SAVE LABOUR COST BY BETTER METHODS AND ADDING IMPROVISED MACHINERY AND IDEAS.
- 18 Anant Infomedia Pvt. Ltd.,Goa
51. RESPONSIVE AND USER FRIENDLY WEB APPLICATION
52. Responsive CRM
53. PROGRESSIVE MOBILE /WEB APP FOR CRM / CLM SOLUTION USING FRAMEWORK IN PHP & MYSQL
54. Responsive CRM (Client Record Management)
- 19 Apollo Tyres Ltd. Advanced Engineering centre,Chennai
55. Data Analysis Using R and MATLAB
56. Developing an app for estimating Contact Length using R Studio
57. Development of Bluetooth stack for Tyre Pressure Monitoring System(TPMS)
58. Increasing Power efficiency of TPMS
59. Contact length Determination with hep of tri-axial accelerometers
60. Java Application for RFID
- 20 Apple India Pvt Limited,Hyderabad
61. Campaign Insights for Ad Platforms: Data Warehouse Modelling For Big Data Analysis
62. Anomaly Detection
63. Cura - Curator Assistant
64. Log Analysis for iOS Application
65. PERFORMANCE METRIC WIDGET FOR CUSTOMER CARE ADVISORS
66. Object Detection and Classification
- 21 ARM Embedded Technologies Private Limited,Bangalore
67. PPA Analysis and Automation using perl scripts
68. OPTIMIZATION OF PPA ON MIXED-FLOWS ACROSS CADENCE & SYNOPSIS DIGITAL IMPLEMENTATION TOOLS
69. Memory Compiler Evaluation
70. Design and Characterization of GPIOs (General Purpose Input/Output) cells for low power applications
71. Machine Learning in Memory Compiler Corner Generation
72. Standard Cell IP Creation and Characterisation
73. Geekbench performance analysis & self-characterization micros
74. ArchEx
75. Memory Compilers PPA comparison tool
76. Verilog Monitors for Verification
77. BENCHMARKING AND PERFORMANCE ANALYSIS
78. Memory compiler development
79. Builder report Generator and Version Control Migration
80. Optimization of Regression Result Comparator Tool using Pandas
- 22 ARM Embedded Technologies Private Limited,Noida
81. Introduction to SRAM based memory design and instance generation
82. Verification and Testing of donut scheme
- 23 Auquan,Bangalore
83. Development of Auquan Toolbox

84. Software Testing for Auquan Toolbox and Submission Data Processing
- 24 B.G.Shirke Construction Technology Pvt. Ltd.,Pune
85. Design and Analysis of Buildings
86. Analysis and design of Mess building in NIT-Tadepalligudem, AP
- 25 Baldor Technologies Pvt Ltd,Mumbai
87. 1. Process Engineering 2. Image validation using Machine Learning
88. Image processing using machine learning
89. Digital Forensics, OCR
90. Digital Forensics and Extraction and Verification Engine
- 26 Bank of Hodlers,Bangalore
91. Alpha Product Launch
- 27 Beckman Coulter (formerly ReaMetrix India P Ltd),Bangalore
92. Stabilization of Novel Antibody Dye Conjugates
93. Performance analysis of DURAClone panels and evaluation of parameter specifications on different compatible flow cytometers
- 28 Belief Systems,Chennai
94. Business Process Reengineering
- 29 belong.co,Bangalore
95. DevOps Engineering
96. A project on Careeer planning and candidate belongingness
97. email text analysis/generation, Improving search
- 30 Bharat Forge Ltd,Pune
98. DEMAND FORECASTING AND CAPACITY ANALYSIS OF PZS-I PRESS LINE AND BACKWARDS SCHEDULING FOR THE PRODUCTION OF MCD-II
99. Performance analysis using financial ratios
100. COST CUTTING MEASURES IN MATERIALS DEPARTMENT
101. INCREASING PRODUCTIVITY OF HARDNESS CHECKING PROCESS IN HEAT TREATMENT DIVISION BY AUTOMATION
- 31 Blue Jeans Network India Pvt. Ltd.,Bangalore
102. BUILD AND UTILITY ENHANCEMENTS FOR BLUEJEANS EVENTS
103. Command Center- Feature Development and UI Enhancement
104. Enhancements in Indigo UI and Architecture
105. Logger View and Unit testing
106. Rendering Library
107. Making web application Accessible
- 32 Bosch Research and Technology center,Bangalore
108. EVENT DETECTION IN TIME SERIES DATA
109. Question Answering System
110. Convolutional Neural Networks with Configurable Kernels
111. Entropy Calculation
- 33 Breakthrough Management Group India Pvt Ltd,Mumbai
112. Higher Education Insights
- 34 Bundl Technologies Private Limited (Swiggy),Ba ngalore
113. Forecasting and Benchmarking
114. Research and analysis of new business initiatives
115. Indepth Customer Feedback
116. Prediction of orders of a restaurant in a day and DE- zone clustering on the basis of batching.
117. Trade Discounts Strategy
118. Menu analysis and operations aspect of Swiggy POP
119. Offline to Online Customer Base Analysis and strategic capture of the afro mentioned market via a feasible market strategy, Hygiene Audits
120. Expansion 4.0: Swiggy moves to exponential expansion strategy
121. Improving the sales efficiency & productivity for the Swiggy City Sales Teams
122. Swiggy Select Growth
123. Ads Sales Improvement
124. Optimization of Kitchens to Reduce preparation time and Increase efficiency
125. Address classification and New user churn prediction
126. Optimization of the shop floor and improving efficiency of the private kitchens

127. Expansion 4.0: Understanding and exploiting the potential in tier2/3 cities And A deep analysis of discounting strategies
128. Conversion and Loyalty Program
- 35 Capillary Technologies - Testing Automation,Bangalore
129. Consumer Journey and Merchant Tools
130. Consumer Visual Profile Generation
- 36 Central Electronics Engineering Research Institute,Pilani
131. Detection of power transmission lines in Static images using deep learning and computer vision techniques.
- 37 Central Leather Research Institute (CLRI),Chennai
132. THERMOKINETIC MODELLING OF CARBOXYPEPTIDASE PRODUCTION IN YEAST
133. Heat Based Model for predicting PHB production from consortia & Mobile app for research lab application
134. Modeling on natural gas sweetening
135. Fabrication of Keratin composite biomaterials for biomedical applications
136. Preparation of collagen based scaffold for wound healing
137. Probing the role of aromaticity in supramolecular self-assembly of Fmoc protected Amino acids
138. Imidazo pyridine and Imidazo pyrazine amine based probes and inhibitor for protein fibrillation
- 38 Centre for Artificial Intelligence & Robotics,Bangalore
139. Intelligent Unmanned Aerial Systems
140. Simulation of a Steering and Heading Angle Controller for an Autonomous Ground Vehicle
141. Motion Planning and Control of Robots Using A 3D Graphical Visualisation Interface
142. Object Tracking and Detection using Optical Flow and TLD, Point Cloud Generation
- 39 Century Enka Ltd.,Pune
143. Study of DTEX variation in Yarn Packages
144. STUDY OF TWISTING TENSION ON CABLE CORDER MACHINE
145. study and analysis of depression in Vapour Absorption Chiller inlet stream temperature
146. Zinc Recovery and acid treatment using Resins
147. Zinc Recovery and acid treatment using Resins
- 40 Cisco Systems (India) Pvt. Ltd - Software Engineering,Bangalore
148. Testing and Verification of ASIC chips
149. Verification of Egress Buffer
150. Project 1: Serial DS Link for Edge and Fog Module (EFM) and creation of a 2-tier IoT system. Project 2: Design a lightweight Edge Algorithm (to be run on a raspberry pi) which can detect and count the number of people in thingQbator Lab.
151. Bird's Eye
152. 1. Identity Management in Blockchain Technology | 2. People Counter using Machine Learning
153. 1.Aironet Developer Program Hardware Development Kit Sensor Integration with Raspberry Pi2. Empty Parking Lot Detection and EFM Dashboard
- 41 Cloudcherry Analytics Pvt Ltd,Bangalore
154. 1) Build a Cross-Platform Face Recognition Mobile App 2) Intelligent Insights Mining
155. Replicate all the widgets present on the dashboard of the CloudCherry product for the clients for their visualization.
156. Feedback Collection through Alexa, Automated Excel report generation using C#
157. Emotion Detection on Raspberry Pi
- 42 Cohesity Storage Solutions India Pvt. Ltd.,Bangalore
158. Manageability
159. Data Protection and Backup for various environments
- 43 Credit Suisse - Credit Analytics,Mumbai
160. Loan to Value Trade Analysis for Lombard Loans
161. Model Validation and Review of GM Models
162. Incremental Risk Charge Methodology CREDIT SUISSE
163. Divisional allocation of exposure and collateral
164. EXPOSURE CALCULATION METHODOLOGY
- 44 Credit Suisse - Enterprise Operational Risk Management,Mumbai
165. Economic Risk Capital Reporting and Analysis for the Credit Suisse Group
- 45 Credit Suisse - Finance Change,Mumbai
166. BASEL MEAUREMENT AND REPORTING- TOM L1-L2

- 46 Credit Suisse - Global Markets Controls COO,Mumbai  
167. Portfolio Risk Management  
168. Governance and Reporting  
169. Global Markets Controls Attestation  
170. Automation of Equity – Credit Model Parameter Calibration Using Python  
171. Model Monitoring of Stressed Probability of Default
- 47 Credit Suisse - Market Risk Quant,Mumbai  
172. Monthly assessment and Report generation for Business Operation Risk  
173. Market Risk Management of Strategic Resolution Unit  
174. A Framework for Identifying Drivers of Flight to Liquidity Risks  
175. Risk Management For Foreign Exchange - Rates And Commodities
- 48 Credit Suisse - MLR Non-quant,Mumbai  
176. Supervision and Oversight to mitigate operational risk at Credit Suisse  
177. INTEGRATED CAPITAL RISK ANALYSIS (ICRA)  
178. COUNTERPARTY CREDIT RISK – CREDIT VALUATION ADJUSTMENTS
- 49 Credit Suisse - Model Risk Management,Mumbai  
179. Global Market Controls, Supervision and Oversight  
180. Securities Lending Business and Prime Brokerage  
181. Role of Economic Risk Capital in Risk Management at Credit Suisse  
182. Independent Price Verification of Credit Default Swaps (Recovery Rate Risk)
- 50 Credit Suisse - Prime Services,Mumbai  
183. Index Rebalance Forecasting  
184. Business Analytics Overview and Analysis of Key Metrics Moves
- 51 Credit Suisse - Product Control,Pune  
185. INDEPENDENT PRICE VERIFICATION OF FIXED INCOME PRODUCTS FOR WORLD MARKETS AND AUTOMATION OF OPEN POSITION ADJUSTMENT CALCULATION(OPA) USING R  
186. Vendor and IT Risk Management
- 52 Credit Suisse - Risk & Finance Data Analytics, Reporting,Mumbai  
187. Use of Scenarios for stress testing and internal risk reporting  
188. Business Support : Global Markets Controls Committee Reporting - IB Risk Mitigation  
189. Cluster Market Risk Reporting and Analysis for the Asia Pacific Region
- 53 Credit Suisse - Risk & Finance Data Analytics, Reporting,Pune  
190. Exposure Movement Analysis  
191. STAR Validation & Enrichment  
192. CCP Exposure Move Analysis Reporting Regulatory Bodies [FINRA(US),FINMA(SWISS)]
- 54 Credit Suisse - Stress Testing,Mumbai  
193. Scenario Exposure Analysis
- 55 Crigloo,Chennai  
194. Propensity model for successful Digital Ads  
195. Propensity model for successful Digital Ads
- 56 DataM Intelligene 4Market research,Hyderabad  
196. 3D Printed Electronics Market  
197. Using Web Scraping for Automating Lead Generation  
198. Global 3D Printed Electronics Market  
199. Generating Revenue with Lead Generation from the Outbound Marketing, E-mail Marketing & Social Media Marketing  
200. Generating revenue with Lead generation from Outbound, Social-media & E-mail marketing
- 57 DBOI - Credit Risk,Mumbai  
201. Global Credit Ratings (Developed Markets Financial Institutions)  
202. Global Credit Ratings (Leveraged Structured Finance)
- 58 DBOI - MLRM, Risk Methodology & NFRM,Mumbai  
203. Market Data Strategy and Analytics  
204. Full Revaluation by Strategic Production Team  
205. Market Risk Analysis and Control (MRAC)
- 59 DBOI - Trading Risk & PL,Mumbai  
206. Product Control – Risk P&L Reporting Team (Rates), Deutsche Bank CIB Centre  
207. RISK AND PROFIT AND LOSS REPORTING

- 60 Dell R&D,Bangalore  
208. PLDM Compliance Test Suite  
209. Automated Vulnerability Testing of iDRAC  
210. Video Capture and Conversion Library for iDRAC
- 61 Development Consultants Pvt. Ltd. (DCPL),Mumbai  
211. SITE ENABLING WORK FOR RINFRA AT KUDANKULAM
- 62 Divgi TorqTransfer Systems Pvt. Ltd, Shivare,Pune  
212. Project Management  
213. Tool Costing Estimation, Cycle Time Verification, Consumables Costing
- 63 Divgi TorqTransfer Systems Pvt. Ltd. - Bhosari,Pune  
214. Process optimization for overseas supplier's remittance using VSM
- 64 DMI Finance Private Limited ,Delhi  
215. Developing and Deploying an Income Prediction Model for a Personal Loan Portfolio
- 65 Ecom Express Pvt. Ltd.,Delhi  
216. Automate prebilling process and FE ranking model using R studio  
217. Mid and Last Mile analysis  
218. Mid Mile Network Optimization
- 66 Ecozen Solutions (P) Ltd.,Pune  
219. THERMAL TESTING AND RESEARCH OF VARIOUS REFRIGERATION COMPONENTS  
220. Development and Prototyping of Mechanical Structure in Ecofrost product
- 67 Edelweiss Financial Services,Mumbai  
221. 1. Credit Scorecard for LAP 2. Relative Implied Volatility Arbitrage with Index Options 3. Model Development for the prediction of Wholesale Price Index Inflation  
222. Implementation of a new environment for custody and onboarding Team
- 68 Edelweiss General Insurance,Mumbai  
223. Estimating propensity of Lifestyle Disease through Social Media Profiles  
224. AUTOMATED ASSET ALLOCATION BETWEEN DEBT, EQUITY AND GOVERNMENT SECURITIES USING DEEP Q-LEARNING VIA NEURAL NETWORKS
- 69 Egnify Technologies,Hyderabad  
225. Internship at Egnify Technologies (Full Stack Development)
- 70 Ericsson Global India Pvt. Ltd.,Bangalore  
226. (Full Stack Development)  
227. Guardian Analysis Automation  
228. IPOS private regression dashboard  
229. Binary Trace Logging
- 71 Ericsson Global India Pvt. Ltd.,Chennai  
230. Automation on OCC Framework  
231. Development of a Search Utility for searching Product Customization Keys' IDs  
232. Improvement of the Frameworks associated with OCC and CRS Nodes through Automation and Optimization  
233. NGCRS Emergency Package Release Process Automation  
234. Automation of tests for TR's  
235. License porting of BSCS R3 & trouble report based automation of test cases  
236. Creating Docker Images of Build Environments, Spreadsheet Viewer, Ticketing Tool on OPENALM
- 72 Ericsson Global India Pvt. Ltd.,Gurgaon  
237. Automation of Testing-Environment Installation  
238. Java Spreadsheet Analytics and JavaFX Bug Finder  
239. Third Party Dependency Extraction
- 73 Ernst & Young (Advisory Services),Gurgaon  
240. Electric Mobility and Solar Rooftop  
241. Market assessment of Solar Rooftop and Electric Vehicles in India
- 74 Ernst & Young Global Delivery Services,Bangalore  
242. THD PCLI Model  
243. Interest Rate Modelling  
244. Python Library for Stochastic interest rate models
- 75 Exponentia data,Mumbai  
245. Business Analysis  
246. Business Analyst



- 247. RESPONSE CLASSIFICATION USING RECURRENT NEURAL NETWORKS WITH LSTM
- 248. Credit Analysis and Business Analysis
- 249. Data Vectorization using Deep Learning: Long Short Term Memory RNN
- 76 FATH GmbH Components,Germany
- 250. Manufacturing Processes: Design and Operations
- 77 Fidelity Investments,Bangalore
- 251. Crypto Asset Price Prediction
- 78 FreshWorks Inc,Chennai
- 252. Webpage Development
- 253. DESIGN AND DEVELOPMENT OF FRESHTEAM ADMIN APP
- 254. Marketplace
- 255. design and development of a new platform for file transfer and app monitoring
- 79 FTD India Private Limited,Hyderabad
- 256. Creating a Virtual Workflow for the home grown Order Management System.
- 80 Genpact,Bangalore
- 257. Migrating Forecasting Models from R to Python
- 258. Manual KPI Reporting
- 259. Deep Learning in Computer Vision
- 260. Deep learning Driven Insurance pricing model
- 261. Reporting In Supply Planning
- 262. Dispute management in supply chain using Blockchain
- 263. RPA assessment of TESCO and IRI &apos;s process
- 264. POS Sales On Demand
- 265. RPA assessment of finance processes , Digital intervention in processes
- 266. CPG Analytics
- 267. Time Series Forecasting in R
- 268. Reinforcement Learning
- 269. Manual KPI Reporting
- 270. SECONDARY RESEARCH FOR A PHARMACEUTICAL COMPANY
- 271. 1. Star Measure and Adherence Forecasting Tool 2. Key Drivers of Sales for Medical Devices Analyzing Tool
- 272. Development of Graph Analytics Techniques and Data Science Platform Evaluation
- 273. Speech Analytics: Emotion detection and Back-end development for project pipeline
- 274. Reporting and analysis of Procurement KPI's
- 275. Reporting and Analysis of SLAs
- 276. CHAT BOT DEVELOPMENT
- 277. Strategies for consumer targeting and segmentation for retail stores
- 81 GEP,Navi mumbai
- 278. Supplier Deduplication Engine
- 279. Contract Learning
- 280. Conversational Reporting
- 281. AI Based Procurement Classification
- 82 GGK Techno logies - Mobile Services,Hyderabad
- 282. Web-Service Testing Automation Suite
- 283. Data Analytics, Business Development, Business analysis and SQL Training
- 284. Shop Stevie Project- Development and Automation Testing
- 285. React Studio
- 286. Web-Service Automated Testing Framework
- 287. USER EXPERIENCE DESIGN
- 288. Data Preparation tool for structured data type
- 289. Data Preparation Tool
- 290. WEB DEVELOPMENT ON WEB for Auto.com
- 83 Goldman Sachs India Pvt. Ltd. - Operations,Bangalore
- 291. Ledger Break Reduction
- 292. Account Management - Dormancy Workflows
- 293. Robotic process Automation
- 294. Risk Analysis of over the counter products

- 295. Target2-Securities Denmark
- 296. Risk Analysis of US Equity Structured Notes
- 297. Risk Analysis of Credit Derivatives-OTC product
- 298. Risk Analysis of OTC Product
- 299. Robotic Process Automation
- 300. Process Automation for Operations
- 301. Risk analysis of PIPG Products
- 302. Trader Commission Account Integrity
- 84 Goodera - (Next Gen) (Non IT) ,Mumbai
  - 303. Social Impact on Fortune 500 Companies
  - 304. Strategy Consulting, Monitoring & Evaluation and Impact Assessment and Grants Management System
- 85 Goodera (Next Gen PMS) (Non IT),Delhi
  - 305. A report on CSR consulting: Strategy Consulting, Monitoring and Evaluation and Impact Assessment
  - 306. Key Account Management,Corporate Social Responsibility
- 86 Goodera (NextGen PMS Pvt. Ltd) - Non IT,Bangalore
  - 307. Account Management
  - 308. Goodera Volunteering
  - 309. Micro-Volunteering
  - 310. PS-II Engagement with NextGen PMS
- 87 Goodera (NextGen PMS) - IT,Bangalore
  - 311. Building Digital Dashboards
  - 312. Developing Digital Dashboards
  - 313. Building Digital Dashboards & API Integration
- 88 Grasim Industries Ltd.,Nagda
  - 314. Enhancing the Process Efficiency in Spinning Department
  - 315. 1. Optimization of Salt Recovery in Hot Sum zone Tank, 2. Increasing the CS2Recovery Efficiency.
  - 316. Enhancing the Process Efficiency in Spinning Department.
  - 317. Enhancing The Process Efficiency In Viscose Department
- 89 Grasim Industries, Pulp and Fibre Division,Mumbai
  - 318. Mathematical modeling of the Pulping Processes
  - 319. Data Driven Controller Performance analysis
- 90 Groww,Bangal ore
  - 320. Building Community of Investors in India
- 91 HAPPAY (VA Tech Ventures Pvt Ltd.),Bangalore
  - 321. Machine Assisted Invoice Parsing
- 92 HCL Technologies,Bangalore
  - 322. User Interface Common Components
  - 323. Software Development for project migration of Continuous Integration Tools
  - 324. Continous Integration using JAVA
  - 325. PROJECT MIGRATION APPLICATION FOR CONTINUOUS INTEGRATION TOOLS
  - 326. Encapsulation of Rest services
  - 327. Work Area Automation
- 93 HCL Technologies,Pune
  - 328. CAMWorks
- 94 Healthcare Technology Innovation Centre ( HTIC),Chennai
  - 329. Daily Activity Classification and Fall Detection using IMU sensors
  - 330. Image Segmentation Analysis for Medical Equipment
  - 331. System Software Development for Bronchoscopy
- 95 HealthCubed,Bangalore
  - 332. Reagent Integration -??Inclusion of specifications to the HealthCube
  - 333. Reagent integration: development of new assays
- 96 Here Maps - Distributed Data,Mumbai
  - 334. Prediction of On Street Parking using Deep Learning
  - 335. Providing an Attribute Capturing Functionality on the Map-editing tool
  - 336. Lane Detection in Aerial Imagery
  - 337. Bifurcation of Traffic Signs

338. Identification of any type of biases showed by a QA person towards a user based on their relationship with the help of their assessment scores calculated from the data provided by the company
339. Indoor Mapping and Drone Navigation
340. What's Here – an Augmented Reality app based on GPS
341. Design and Development of Data Ingestion Pipeline
342. Graph Processing for places on map a with real time updates
- 97 Hero MotoCorp Ltd,Neemrana
343. PRODUCTIVITY IMPROVEMENT THROUGH WASTE ELIMINATION IN ENGINE ASSEMBLY
344. Reduction of rework at paintshop & AGV utilization improvement
- 98 Hindalco Innovation Centre - Semifab, Taloja,Mumbai
345. Graphical
- 99 Hindustan Unilever Research Centre,Bangalore
346. Limescale Removal: Efficient Modification of Domex using weaker acids
347. modelling indoor air quality
348. Synthesis of quaternary ammonium silyl (QAS) salts and analysis of their effect on surface tension of water
349. UNDERSTANDING EFFECT OF COUNTER-IONS AND CO-IONS ON THE DRAINAGE AND STABILITY OF LIQUID FILMS
350. Oil Tolerance of Foam: Interaction between Surfactants and Oil
351. Air Bubble Entrainment by Plunging Laminar Liquids Jets
352. FLUIDISED BED DRYING:DRYING KINETICS AND A PRELIMINARY MODEL
353. Optical characterisation of various coloured pigments.
354. Quantification of Singlet Oxygen using Rose Bengal photosensitizer in aqueous media.
- 100 Hourglass Research,Mumbai
355. Patent Analytics
- 101 HSBC Electronic Data Processing India Pvt. Ltd.,Bangalore
356. Monitoring of Credit Risk AIRB Models for Wholesale Portfolio
357. FUNCTIONALITY OF HSBC IN ALL DIRECTIONS AND WORKING OF REGULATORY COMPLIANCE ANALYTICS
358. BUSINESS DATA ARCHITECTURE AND DATA LINEAGE
- 102 IBM India Software Group ,Pune
359. Key Management Service
360. QRadar Security Information Event Management
361. QRadar SIEM Solution - Advanced Threat Support
362. QRadar SIEM
- 103 IBM India Software Group,Bangalore
363. FCI(Financial Crimes Insight) Design Studio Enhancements
364. Writing a Zookeeper and Kafka Utility to ensure coordinated access to various data resources.
365. Deploying DevOps Toolchain on Hybrid Cloud System
366. Test Automation of Case Manager Builder Pages
367. Deploying a DevOps toolchain on Hybrid Cloud
368. Risk Assessment for X.509 Certificate
369. WATSON ORDER OPTIMIZER AND IBM STORE INVENTORY MANAGEMENT
370. Bias Detection Service
371. Security Test Automation & Risk Assessment of X.509 Certificates
372. Fairness Monitoring Service
373. Store Inventory Management
374. Data Governance
375. Integration of Apache Kafka into B2B Sterling Integrator
376. SIM Microservices backend development, distributed computing with tensorflow
- 104 IDEaS - SAS - Software Development,Pune
377. Voice Assistant Application
378. RecruitmentPortal2.0
379. Recruitment Portal 2.0
380. Application of Machine Learning for Anomaly Detection
381. PS At IDEaS - SAS

- 105 IMI Connect Product Development,Hyderabad
- 382. ICS file generator, WhatsApp business APIs, URL shortener
  - 383. Salesforce app development, Apple Business chat, WhatsApp business API, Test feature and branch node conditions
  - 384. Custom Nodes - AWS DynamoDB and Lambda
  - 385. 1. Facilitate real-time communication of IMIchat agent with android application enduser (customer) via IMIconnect platform. 2. Provide test functionality and branch node conditions in IMIconnect platform.
- 106 IMI Mobile R&D,Hyderabad
- 386. IMI - R&D Pre Sales Work
  - 387. Digital Human
  - 388. Building chatbots and channel integration
  - 389. IMI kyc
  - 390. Working on the IMIbot Appserver backend and integrating email delivery system
  - 391. IMIassist
  - 392. IMIkyc - An Android Application
- 107 Infinera,Bangalore
- 393. IMPLEMENTING THE PROCESS OF EMULATION AT SUBCHIP LEVEL USING ZEBU AS THE EMULATOR
  - 394. Cost Effective Solution for 100 GigaBit Ethernet Data Traffic Tester
  - 395. Improving the Mean Square Errors of High Speed SerDes Links on the MUXPONDER 400
  - 396. Inf Scope : Infinera's Debug Module
  - 397. Channel Characterization and tuning of High Speed SerDes Links on MXPO400
- 108 InMobi - Software Development,Bangalore
- 398. Development of tools and API integrations for Wadogo
  - 399. Fraud Defense
  - 400. Targeting of Audiences by Mobile Advertisement Platforms
  - 401. Wadogo Exchange Platform and Advertiser Integrations in Wadogo Demand
  - 402. Anti Abuse Engineering
- 109 InMobi - Business Development,Bangalore
- 403. Programmatic Operations and Central Market Intelligence
  - 404. Affiliate Marketing – Demand, Supply & Operations – Wadogo
  - 405. ROLES & RESPONSIBILITIES IN SALES & DELIVERY TEAMS AT InMobi
  - 406. Programmatic Delivery- Revenue Optimization and Account Management.
  - 407. Optimizing Campaigns based on Scale and Fraud Analysis
  - 408. Affiliate Partnership - Wadogo
  - 409. Supply Operations, Inmobi Technologies
  - 410. Remarketing, Central Business Delivery
  - 411. Market Intelligence for Mobile Advertising World
  - 412. Affiliate Marketing – Direct Demand, India and Southeast Asia
  - 413. Programmatic Delivery: Revenue Optimization and Account Management
  - 414. Supply Side Margin Reports
- 110 Intel - Computer and VLSI Architecture,Bangalore
- 415. An efficient, optimal and adaptive method to generate design for testability (DFT) structure using floorplan database
  - 416. SPEF Parasitics Correlation between StarRC and ICC2
  - 417. Improving Execution of Layout Verification in Physical Design
  - 418. Performance Optimization of Datacenter Workloads
  - 419. Porting of layout design in ICC2 to a future technology
  - 420. Strategic removal of hold violations
- 111 Intel - GPU and VLSI Design,Bangalore
- 421. Power aware verification of RTL design
  - 422. Hold correlation and optimization in ICC2 and Primetime
  - 423. Performance Formal Verification on Graphics Unit
  - 424. Improvements in PHY Timing Analysis Methodology to Achieve High Turn Around Time and Better Quality
  - 425. Quality Improvement of Metal Density Calculation

- 112 Intel - Testing & Verification,Bangalore  
426. 3D Image Corruption Debugging  
427. Design Convergence of ASIC  
428. Exploring Performance Optimization Opportunities for Data Centers
- 113 Investopad,New delhi  
429. Digital Marketing and Content Creation  
430. Integration of Organisation Data with Salesforce
- 114 J P Morgan Services - Quant,Mumbai  
431. Building Hedging Strategy for secured funding model in OPA framework and AUC Drivers for Custodian Services  
432. Risk Management using Linear Quantitative Research technique  
433. Preparing Algorithmic Indices and Trading Strategies Using Python  
434. FALCON STRESS INFRASTRUCTURE  
435. Creation of Tradable Financial Indices and Structured Equity Derivatives
- 115 J P Morgan Services -Centralized Research Group(CRG),Mumbai  
436. Functioning of financial institutions in North America  
437. Regional Investment Banking  
438. Consumer & Retail, Healthcare  
439. M&A SERVICES PROVIDED IN AUSTRALIA IN BY COUNTRY TEAM  
440. Fintech Opportunities  
441. Internship at J.P. Morgan Services  
442. Private equity landscape in APAC region  
443. M&A opportunities analysis in real estate  
444. Investment Banking – Technology, Media and Telecom (TMT) Sector
- 116 J P Morgan Services - Global Markets Group(GMG) - (Markets +Risk),Mumbai  
445. Credit Rating and Analysis of Municipal Bonds  
446. Assisting in Index Creation & Management, Automation and Structuring Equity Derivative Products  
447. Pricing of Fixed Income Instruments and Hedging Strategy for Clients  
448. Forecasting of Retail Deposits  
449. Liquidity Risk Management  
450. Analysis of Economic, Financial and Political risks of Emerging Markets, Market analysis and US Recession monitor  
451. Pricing of Fixed Income Instruments and Hedging Strategy for Clients”  
452. Credit Analysis and Rating of Financial Institutional Groups
- 117 J P Morgan services - Global research Centre(GRC),Mumbai  
453. Fixed Income & Automation Reports  
454. Equity Research and Analysis- European Consumer goods  
455. Equity Research and Analysis- European General Financials and Central European Banks Team  
456. Equity Research and Analysis- European and South African Banks  
457. Equity Research  
458. Automation & Fixed Income Reports  
459. Equity Research and Analysis- South Asia Banks and Insurance Team  
460. Equity Research and Analysis- US Managed Care
- 118 Jarvis Technology & Strategy Consulting Pvt Ltd,Delhi  
461. Cleaning, Standardisation and Mapping of Data  
462. A Multi-field approach for easing repetitive data structuring, warehousing and reconfiguration over large data-sets  
463. Automation in collection of data  
464. Product Planning and Development  
465. Automation of Data Cleaning, Extraction and Mapping using Python and PostgreSQL  
466. Cleaning, Standardization and Mapping of Data  
467. Data analysis
- 119 Jarvis Technology and Strategy Consulting Pvt. Ltd.,Mumbai  
468. Optimizing workflow in data cleaning and formatting processes  
469. Operations  
470. Product Management  
471. Database Mapping  
472. Data Analytics and Operations Processes

- 473. Data Cleaning and Data Management
- 474. Actions for collective transformation(Operations and strategy) in Jarvis strategy and consulting
- 120 JDA Software Solutions,Bangalore
  - 475. Hosting A-Z: A one stop cloud shop
  - 476. Patching Automation, Jenkins load Balancing and Containerization of WMS application
  - 477. Data Diagnostics Tool
  - 478. JDA Cloud portal
  - 479. JDA Order Promiser Demo
  - 480. Data Diagnostics Tool
  - 481. PATCHING AUTOMATION, JENKINS LOAD BALANCING AND CONTAINERIZATION OF WMS APPLICATION
  - 482. Build Environment Automation and JSUnit Automation
  - 483. Cloud Vista and Shift Manager
  - 484. Automation of Channel Prioritisation
  - 485. SCPO PRODUCT TESTING ( PERFORMANCE & FUNCTIONAL )
  - 486. JSmart Testing for JDA Products
  - 487. Automation of tasks at Cloud services
  - 488. TMS Log exporter tool and Health Monitor Web UI
  - 489. TEAM DASHBOARD
  - 490. Application Sanity Check
  - 491. Automation of Services
  - 492. JDA WMS AUTO CHECK-IN IOT DEMO
  - 493. Analysis and Optimization of Parcel Rating of JDA
  - 494. Analysis and Optimization of Parcel Rating of JDA
  - 495. Supply chain management and channel prioritisation
  - 496. WMS CUSTOMER DASHBOARD
  - 497. FPUI (Factory Planner User Interface) using Adobe AIR
  - 498. Intelligent Monitors
- 121 JDA Software Solutions,Hyderabad
  - 499. Selenium and NUnit Testing for the Open Access (Category Management Suite provided by JDA)
  - 500. Assortment planning application
  - 501. Category Management
  - 502. Configuration Management
  - 503. Ecosystem Testing Framework
  - 504. Fulfillment Automation
  - 505. Selenium Automation Testing
  - 506. 1.Creation of Data Visualization Dashboard Desktop Application for JDA Space Planning Software 2. Automation of database transfer from Microsoft Excel to MS SQL Server
- 122 John F Welch Technology Center (GE),Bangalore
  - 507. Construction of Flow Battery
  - 508. Developing a prototype of absorption spectroscopy-based gas sensors
  - 509. Combined Cycle Modelling in ALPRO and Upper Buckstay Calculations Implementation in Java
  - 510. Developing and testing of Steam Turbine design Automation Tool.
  - 511. STEAM TURBINE OUTAGE METHODOLOGY
  - 512. Software Testing in Boiler Configurator Portal
- 123 JP Morgan Chase - Technology,Bangalore
  - 513. Load Balancer Micro Services
  - 514. MyWorkplace
  - 515. Information Extraction using NLP
  - 516. Support
  - 517. Abstractive Text Summarization
  - 518. Support & Project Sentinel
- 124 JPMC - Technology,Hyderabad
  - 519. JNET
  - 520. Machine Learning application and Web application
  - 521. Microservices and rest apis
  - 522. Model Hosting Platform

523. Chaos Engineering
- 125 JPMC - Technology,Mumbai
524. Merchant Services
525. React Application
526. Morocco Decom Project
527. Symphony Chat Bo
- 126 JPMC CIB Operations,Bangalore
528. Financial Reporting ReClass using 'Xceptor'
529. Management of Core Cash Operations in Corporate and Investment Banking
530. Project Management, Robotics Process Automation Projects
531. Analysis of Operation Errors, System Incidents, FX and Client Monitoring.
532. Metrics & Robotic Process Automation (Bot Performance Analysis)
533. Increasing Efficiency and reducing errors using Automation Techniques
534. PROCESS AUTOMATION OF THE OTC BROKERAGE TEAM USING ALTERYX AND ONBOARDING OF ACCOUNTS ON A THIRD-PARTY PLATFORM
535. BOT Performance Index & Issue Log Analysis
- 127 JPMC CIB Operations,Mumbai
536. Enhancing end to end client experience
537. Estimation and enhancement of charges recovery using data analysis and solutioning
538. Risk and Controls
539. Increasing Efficiency and reducing errors in Banking operations using Automation Techniques
- 128 Knorr -Bremse Technology Center India Private Limited,Pune
540. Data Analysis Tool
- 129 Kristal.AI,Bangalore
541. Android App Development
542. iOS Development
- 130 Kubric.io,Bangalore
543. Thumbnail Selection, Keypoint Detection and Image Tagging
544. Video Thumbnail Generation, shoe pose estimation and image tagging
- 131 Law Pundits,Trivandrum
545. Event Management and Coordination
- 132 Lowes India,Bangalore
546. Customer Behavior Analysis, Customer navigation Analysis, Social Media Traffic Analysis, Customer Data Profiling
547. Tariff Tracker Dashboard and Competitor Reactivity Report
548. Supply Chain and Operations Analytics
549. Python automation of Customer Health Scorecard and Recession Modelling
550. Analysis for Lumber Pricing, Buy in Bulk And Save, and Job Lot Inventory Increase, Competitive Intelligence, SDV-183, Electrical Cables Analyses, Store Walk One Pager
- 133 Mahle Behr,Greater noida
551. INCREASING THE LINE EFFICIENCY OF YJC (Maruti) CONDENSER POST BRAZE LINE
552. Productivity improvement by studying the current layout and identify areas of improvement
553. REDUCTION OF INTERNAL DEFECT PERCENTAGE IN HONDA CONDENSERS
- 134 Mahle Behr,Pune
554. ANALYSIS OF VISCO CLUTCH IN A CONTROLLED ENVIRONMENT
555. Study of visco clutch in a controlled environment
556. Material FMEA and Respect of Product
557. Respect of Product & Reduction of Internal Rejections in Fabricated EGR using Six Sigma Methodology
- 135 Media Iq Digital,Bangalore
558. CAMPAIGN ANALYSIS & INSIGHTS
559. WEB CRAWLER FOR ONBOARDING SHOPPERS' DATA
560. Digital Advertising & Marketing- Campaign Analysis
561. Feature Selection Algorithm for Advertising Campaign Optimization
- 136 Mentor Graphics,Noida
562. PCIE Protocol
563. Deep learning models for self driving cars
564. UVM Layer Integration and Compliance Support for LIN Protocol

- 137 Mercedes Benz,Bangalore  
565. Big Data for CAE  
566. Active Noise Cancellation in an Automotive Vehicle  
567. PARAMETRIC ANALYSIS OF FEMUR BONE IN A 3-POINT BENDING TEST USING FE SIMULATIONS  
568. Generative Design Optimization  
569. Forced Convection Cooling of an Automotive Seat-Block  
570. Numerical simulation on external surface convective heat transfer in an IC Engine.
- 138 Minda Corporation,Pune  
571. Design of a PCB Based Automotive Junction Box  
572. Design by Analysis of Navigation Tool Holder  
573. P.O.C. for TFT based Electronic Instrument Cluster
- 139 Morningstar,Mumbai  
574. Asset Backed Securities (ABS) – Securitization  
575. Indexes- Product Management  
576. Indexes- Operations  
577. A Case for Passive Investing
- 140 MSCI (Global Implementation Services),Mumbai  
578. Quantitative Equity Research (New Product Development and Research)
- 141 Multi Commodity Exchange of India Ltd.,Mumbai  
579. Product Management and Hedging Strategies  
580. Product Management and Hedging Strategies
- 142 munshiG Pvt Ltd,Udaipur  
581. Business Development and market analysis  
582. ANDROID APP FOR DIGITALIZING BUSINESS PROCESSES AND DATA EXTRACTION FROM TABULATED DATA  
583. Business Development  
584. Database Management  
585. Business Development and Admin Panel
- 143 My POS Technologies Pvt. Ltd.,Mumbai  
586. OMS - Order Management Suite
- 144 Mytrah Energy (India) Private Limited,Hyderabad  
587. Design in Solar Rooftop  
588. Static Structural Analysis of Module Mounting Structure
- 145 National Aerospace Laboratories,Bangalore  
589. Simulation of an Amperometric oxygen sensor  
590. Solar Thermal Applications of MoO<sub>3</sub> thin films  
591. Invisibility Cloaks & Stealth materials
- 146 National Chemical Laboratory,Pune  
592. A HYDRODYNAMIC STUDY OF A MODEL OF BIOMASS GASIFICATION IN A STATIC BED FLUIDIZED BED RISER
- 147 National Council of Applied Economic Research,Delhi  
593. District Driven Growth  
594. Study of Gems and Jewellery Sector of India
- 148 National Entrepreneurship Network,Bangalore  
595. Content Curation  
596. Monitoring, Evaluation and Impact Assessment of beneficiaries of Wadhvani Foundation programs  
597. Global Support Deployment - SEA  
598. Global Support Deployment- South East Asia  
599. Establishing key metrics for the faculty-development process, building a system to capture key data points, and stabilizing the system.  
600. Mapping of PR Beats and PR analysis of organizations in the skilling and entrepreneurial ecosystems.  
601. Evaluation and Identification of latest trends and best practices in the field of Digital Marketing
- 149 National Institute of Science and Tech. Dev. Studies (NISTADS),Delhi  
602. PROPOSAL FOR REFORMS IN THE PERFORMANCE EVALUATION PROCESS FOR SCHOOL STUDENTS  
603. Food processing industry in India
- 150 National Instruments Systems (India) Pvt. Ltd.,Bangalore  
604. V&V Infrastructure improvements/setup of MI devices/drivers at NI



- 151 NetSkope Software India Pvt. Ltd.,Bangalore  
605. Development at NetSkope for Introspection
- 152 Nomura - FinTech,Mumbai  
606. Nomura FinTech – Voyager & RPA  
607. Business Objects Migration and Automation for Financing Risk  
608. Nomura Voyager FinTech Partnership and Alternative Lending In
- 153 Nomura Global Finance,Mumbai  
609. Attribution and Hypo P/L reporting  
610. Profit & Loss Reporting in Product Control  
611. Profit & Loss Statement Production and Reporting  
612. Nomura Business Management  
613. Pricing and Dealing Equity linked Structured Products
- 154 Nomura Global Risk,Mumbai  
614. TOOL INTEGRATION FOR TEAM HMDG AT NOMURA  
615. Application of Python And Power BI In Automation Of Daily Reports And Daily BAU  
616. REPORT MANAGER and REPORTING  
617. Automation of daily reports  
618. Credit Risk Management  
619. Time Series Forecasting using Deep Learning RNN's and Statistical Approaches
- 155 Novartis,Hyderabad  
620. A report on the activities at Novartis Healthcare Pvt. Ltd.  
621. Finding Impact of a generic molecule on the market share of a branded molecule
- 156 Nucleus Software Export Ltd,Noida  
622. Time Series Forecasting Of Collection Data  
623. LIQUIDITY MANAGEMENT AND JASPER REPORTS  
624. Introduction to REST API  
625. Building neural networks using DL4j  
626. Android Application Development  
627. Development of Log Analysis and Diagnostic Tool using Elastic Stack  
628. geotracker  
629. Structure & Code Generator using Free Marker Template Language  
630. Converting Design mockups into HTML and CSS  
631. User Activity Logging in database  
632. FardEdge FinnAxia - (Psychometric Analysis, Integrating Sentiment Analysis Dashboard with chatbot, Incremental Learning in Face Recognition)  
633. Auto-Caling enabled cloud infrastructure  
634. Voicebot  
635. Intelligent Information Extraction and Image Understanding  
636. Introduction to Spring and Reactive Programming  
637. A Tool to Auto Detect and Auto Correct Issues
- 157 Nutanix Technologies India Pvt Ltd - Data Science,Bangalore  
638. CFD Impact Prediction
- 158 Nutanix Technologies India Pvt Ltd - MTS,Bangalore  
639. NCC Upgrade via LCM and Canaveral and Automation for NCC  
640. GCP- Cluster as a Service  
641. Benchmarking Tool for a NoSQL Database  
642. HTTP task and WebSocket implementation of Application audit for calm  
643. India Operations Dashboard  
644. Benchmarking, Manual Testing, Automation and IDF Documentation  
645. ENTERPRISE BLOCKCHAIN SERVICES BY NUTANIX  
646. Proactive Acropolis Dynamic Scheduler(ADS)  
647. Platform Deployment and Automation in Nutanix ERA
- 159 Nvidia Graphics - Hardware,Bangalore  
648. Design of test infrastructure for SoC performance verification  
649. Tegra Control Backbone (CBB) Safety Verification  
650. Funational Validation of GPU PCIe  
651. Semiformal Verification of HW Scheduling Component of a Crossbar

- 652. Development of Testbench for Host Controller(xHCI)
- 653. Application of formal verification in hardware design
- 654. Memory Qualification and Validation of GDDR6 memory
- 655. HOPPER SOC Top Level Integration
- 656. Automation of power estimation tool and improvement of job launching algorithm
- 657. Formal Verification of CBB RTL Designs
- 658. FMODEL Compile Time Reduction
- 659. CPU Architecture Validation, Boot and Power Management Verification
- 660. Feature Addition and Verification of SMMU
- 661. Low Power DV Infrastructure
- 662. DCO Safety and Verification
- 663. Memory Subsystem Hub-Functional Verification
- 664. Soc cleanup
- 665. Development of Testbench for xHCI controller
- 666. PCIe Design and Verification
- 160 Nvidia Graphics - Software Systems,Pune
- 667. CUDA Profiling Tool Development and feature enhancement
- 668. Development of Test Framework for feature Testing and iOS Application Development for Mosaic Display
- 669. Porting of NvContainer to the platform independent
- 670. Automation of SW-FCAT testing; Automated GRD profiling status
- 671. Project 1: Add variable frame rate based video effects in GFE GalleryProject 2: Automated detection of game events/highlights using deep learning
- 672. GeForce Experience Application Development
- 673. Geforce Experience App Development
- 161 Nvidia Graphics - Software,Hyderabad
- 674. Adding benchmark sanity test for emmc and UFS storage modules on Tegra platforms
- 675. Development of SCM user side debug tool
- 676. Boot KPI Optimization
- 677. Tegra Yocto Optimization For Build Automation
- 678. Linux Kernel Boot Optimization and I/O Validator Tool
- 679. Fixing MISRA-C, KPI Measurements and Reduction of Code Complexity for LDC Component
- 680. SOME/IP
- 681. VALIDATION/FEATURE ENHANCEMENTS OF EGL-STREAM AND SURFACE RE-FACTORIZING
- 682. Automated Test System for AUTOSAR based MCU
- 683. Improving the state of Aurix Firmware and driver development for Board Bringups
- 684. Automation of Integration Testing for DGX System Management
- 685. Test application for Mixer Component and Reduction of Code Complexity for 2D component
- 686. MISRA Coding Standard Compliance
- 687. Integration of Various Debugging Tools with Automotive GPU Software and Fixing MISRA C Violations
- 688. Trace Generation Framework
- 689. MISRA Cleanup
- 690. Integrating feature-detection and feature-tracking into NVIDIA SurroundView
- 691. CLEANING UP MISRA C VIOLATIONS IN NVGPU DRIVER
- 692. Automation of QNX Tests for SSTI
- 693. C implementation of Configuration Database Parser
- 162 Nykaa,Gurgaon
- 694. Search Engine Optimization (SEO) and API Integration of a e commerce web site
- 695. HOSTING A WEBSITE ON AWS AND WEB CRAWLING USIN PYTHON
- 696. SpringBoot MicroService Migration- Unit Testing and Logging
- 163 Oracle India Pvt Ltd.,Bangalore
- 697. Elastic Work Manager for Optimized Thread Usage Within JCA Adapters
- 698. Implementation of FIDO U2F Authentication
- 699. API Development as Part of Platform Service for OMC And Exploring Alternative to JPA Implementation for Faster Database Operations
- 700. Database Kernel Vectorization
- 701. RESTful Infrastruture for Orcale Clusterware Events

- 702. Oracle access manager integration for mobile push notification support
- 703. Side to Java Translation as a part of Application Performance Monitoring- Oracle Management Cloud(OMC)
- 164 Oracle India Pvt Ltd.,Hyderabad
  - 704. Providing Mass Update and Delete functionality
  - 705. Fusion Apps Rule Engine
  - 706. Service Operations for Oracle's Cloud Commerce Platform
  - 707. ADDING FUNCTIONALITIES TO ORACLE CLOUD COMMERCE
  - 708. DESIGNING A WEB APPLICATION TO HANDLE ACCESS LOG FILES FOR ORACLE
  - 709. Project Intern
- 165 OYO Tech,Gurgaon
  - 710. Data Engineering and Transformations
  - 711. Service Development for Payments Team
  - 712. Lead Qualification
  - 713. Backend projects related to booking ordering
- 166 OYO Tech,Hyderabad
  - 714. OYO Events
  - 715. Front-End Web Development
  - 716. Creating a Backend Service Aggregator
  - 717. Oyo MITR App
- 167 PAYPAL,Bangalore
  - 718. Software development for correction of unsuccessful transactions and database migration
- 168 Paypal,Chennai
  - 719. Payment's Alerts and Reports Intent Service
  - 720. PayPal Giving Fund payment system.
  - 721. Galileo: An Alerts Monitoring Tool
  - 722. Hercule Poirot: CRB Tool and Slack Bot Dobby
  - 723. Changes in Disputes API
  - 724. Migration of Shipping APIs
  - 725. Disputes Monitoring System
  - 726. PayPal Giving Fund payment system
  - 727. Risk Admin and API Monitoring
  - 728. Dockerization
  - 729. Optimus- CDP Data Ops
  - 730. Optimus – CDP DATA OPS
- 169 PaySense,Mumbai
  - 731. VIDEO CONTENT PRODUCTION & MARKETING AT PAYSENSE
  - 732. Full Stack Development at Petasense
  - 733. 1). Design functional testing framework; 2). Site User Management (Role Based Access Control)
- 170 Piramal Group,Mumbai
  - 734. Piramal Critical Care Sales Report generation dashboard
  - 735. Credit Fraud detection and Intelligent Deal Sourcing
  - 736. Data Analytics of Digital Marketing Data for Piramal Housing Finance
  - 737. Social Media Analytics
- 171 Pluss Advanced Technologies Pvt. Ltd.,Gurgaon
  - 738. Thermal Analysis of the Celsure Box and Storage and Warehousing
- 172 Postman,Bangalore
  - 739. Product Development at Postman
  - 740. Automation in Platform and DevOps testing
  - 741. User clustering and User organisation Imputation
  - 742. CI/CD Pipeline for Postman
- 173 PricewaterhouseCoopers (PWC),Bangalore
  - 743. Application of Blockchain Technology in Energy Industry
  - 744. Electric Vehicles - Market Analysis and Future Prospects
  - 745. Pre-feasibility study for wastewater reuse projects
  - 746. Conducting prefeasibility studies on wastewater reuse opportunities in three cities of Karnataka

- 174 PricewaterhouseCoopers (PWC),Chennai  
747. Chennai Smart City Limited  
748. Consultancy work for PwC client-Chennai Smart City Limited
- 175 PricewaterhouseCoopers (PWC),Delhi  
749. Detailed Project Report for Kalay Airport, Myanmar  
750. Energy efficiency & Energy Financing  
751. Performing various benchmarking analysis, Secondary research to develop concepts & plans in order to support on-going project, Proposal making  
752. Benchmarking, Market Analysis for various OMCs and Industrial chemicals  
753. Corridors of Growth  
754. Global IWT assessment and key success factors  
755. Special Economic Zones in India  
756. Assignments done at PwC
- 176 PricewaterhouseCoopers (PWC),Hyderabad  
757. Rapid transit planning in Chennai  
758. INDUSTRIAL PARK DEVELOPMENT: DIFFERENTIAL CONSTRUCTION PHASING OF INFRASTRUCTURE COMPONENTS  
759. Insolvency Trends & Learnings : Restructuring Power NPAs  
760. Analysis of FIT/FIP and Auctions for Renewable Energy in Global Scenario  
761. Offshore Wind Market Analysis: India and Abroad
- 177 PricewaterhouseCoopers (PWC),Mumbai  
762. Point Of View On Indian East Coast Ports Container Traffic  
763. Improvement of maintenance efficiency, Mumbai2.0 and Bus Rapid Transit System
- 178 QUANTIPHI,Mumbai  
764. Automation of keras pipeline , Age gender model, Correlation tracker  
765. VIRTUAL TRY ON  
766. Recommendation Systems  
767. Facial Feature Recognition Models And Text Taxonomy  
768. ConversationalAI  
769. Engine Defect Detection
- 179 Qubole,Bangalore  
770. Feature Development For Qubole Web Application  
771. Integration testing, report generation and insights - Presto  
772. Reducing the node bring up time on bootstrap in multi cloud environment  
773. Development of UI features in Ember Framework  
774. Benchmarking of Qubole Architecture  
775. Developing and Contributing to Qubole Hive  
776. EAM  
777. Hadoop YARN scheduler  
778. Logfinder Tool
- 180 RBJ Technologies Pvt Ltd,Hyderabad  
779. Magikrender - Testing, Analysis and optimization  
780. Market Research and Digital Marketing  
781. Business Analytics & Product Management for Cloud Rendering Solution MAGIK RENDER and 3D Modelling Solution SLATE  
782. Go-to-Market Program (Netherlands)
- 181 Reflexis Systems India Pvt Ltd.,Pune  
783. Employee Performance Platform  
784. Time Series Forecasting  
785. Full stack development of Kernel Product  
786. Roster Module Development  
787. Automated UI Testing  
788. Full Stack Software Development  
789. HR Management System (Training)Delta Extract Generation and Bug Fixes(Post Training)  
790. A/B Testing UI  
791. Online BookStore and Time Series Forecasting  
792. Development of A/B Testing UI using ReactJS (front end)  
793. TEST AUTOMATION USING SELENIUM FRAMEWORK

- 794. QA Automation Testing in Reflexis Task Manager
- 795. Employee Performance Platform application UI Development using ReactJS
- 796. Reflexis Time & Attendance and Other Utilities
- 797. Automated testing and development of web-applications
- 798. RWS and Utilities
- 182 Reliance Jio,Bangalore
  - 799. Outlier detection using time series data in Real Time Response System (RTRS).
  - 800. Building a query answering assistant application using Computer Vision and Natural Language Processing
  - 801. BUILDING A/B TESTING AND MODEL REPOSITORY FOR ML FRAMEWORK
- 183 Reliance Jio,Mumbai
  - 802. JUnit and Swagger integration in Play Framework
  - 803. JioFace
  - 804. Face Recognition
  - 805. Development of JioCloud web application and its integration with Google analytics
- 184 ReportGarden Tech nologies Pvt. LTd.,Hyderabad
  - 806. Quality Assurance and Automation Scripts
  - 807. Competitor Analysis
  - 808. Product Management and Development(ReportGarden)
  - 809. Increasing the no. of new user signups for Clientflow.com and tribelocal.com
  - 810. Digital Marketing Reporting Tools & their Integrations Analysis
  - 811. Work done in Reportgarden technologies
  - 812. Quality Assurance,Marketing and Product
- 185 Rivigo Tech,Gurgaon
  - 813. Web Portal Development using Javascript React JS and Redux
  - 814. Software Development Using JAVA Frameworks
  - 815. Backend Development using Spring Framework
- 186 Robert Bosch Center for Cyber Physical Systems,Bangalore
  - 816. Analysis of Vehicular Traffic Parameters using Object Detection and Tracking
  - 817. Object Detection and Tracking Using mmWave Radar
- 187 Robert Bosch Engineeri ng & Business Solutions Private Limited,Bangalore
  - 818. VISION BASED INTELLIGENCE FOR AUTONOMOUS NAVIGATION
- 188 S.R Batliboi & Associates LLP,Chennai
  - 819. Algorithmic trading of equity in Indian stock market
  - 820. ALGORITHMIC TRADING OF EQUITIES IN INDIAN STOCK MARKET
  - 821. Automation
- 189 Samhita Social Ventures,Mumbai
  - 822. Swachh Maharashtra Grand Challenge
- 190 Samsung R &D Institute - Image & Video Processing,Bangalore
  - 823. Embedded Realization of Point Cloud Compression
  - 824. Involved in development and enhancement of RLC NR code with the 5G team,Enhanced Data Transfer/Copy Model
  - 825. High-fidelity 3DMM generation from single image using Deep learning
  - 826. Transfer Learning
  - 827. Stereo Depth Estimation using Deep Learning
  - 828. NR Architecture and enhancement of Data copy/transfer speeds
- 191 Samsung R &D Institute - Intelligent Services,Bangalore
  - 829. Attention based RNN models for joint intent detection and slot filling
  - 830. ChatBot development using GANs
  - 831. Modeling Techniques Used In Automatic Speech Recognition
  - 832. Text Generation using GANs
  - 833. Attention based encoder -decoder for joint intent and slot filling
- 192 Samsung R &D Institute - Networks,Bangalore
  - 834. NR technology and Protocol
  - 835. Containerization of OAM network blocks
  - 836. Development of KPI Analysis Tool using R
  - 837. Mobile Edge Computing
  - 838. Verification of LTE features using Simulator

- 839. Device Driver Framework and RTOS Implementation
- 840. NDK Audio Engine and Live Streaming (Study)
- 193 Samsung Semiconductor India R&D Center,Bangalore
- 841. Camera Sensors and Image Processing
- 842. TCP/IP Offload Engine Hardware Implementation for Storage(SSDs) Applications.
- 843. Wi-Fi SHARING OFFLOAD
- 844. TCP/IP OFFLOAD ENGINE HARDWARE IMPLEMENTATION FOR STORAGE (SSD) APPLICATIONS.
- 845. Analysis of Read and Write Operation of 6T SRAM
- 846. CMOS Image sensors in cameras
- 847. Performance Analysis and Monitor for a RISC-V Core
- 194 Sattva Media & Consulting Pvt Ltd,Bangalore
- 848. Agriculture in Africa: Consulting Assignment with Social Enterprises
- 849. CSR spent Analysis of Corporate sector (Pubic/ Private): Level Trend Analysis and Idea Generation for Effective social Impact) & OECD-DAC Survey on Global Private Philanthropy for Development
- 850. SelectHer & Policy revamp of organisations
- 851. Project 1 : Analysing household dynamics and gender disparities in Burkina Faso
- 852. Program Management and Implementation of a Skill Enhancement Training Program, 2018
- 195 SKF India Ltd.,Bangalore
- 853. PROCESS IMPROVEMENT AND WORKPLACE MANAGEMENT
- 854. DESIGN AND MODELLING OF TOOLS
- 196 Skoda Auto India Pvt. Ltd.,Aurangabad
- 855. 1. Audi A6 NG-Technology ordering. 2. Audi Q7 line capacity enhancement 3. Audi Q7 & A3 Seat sub-assembly
- 197 Skoda Auto India Pvt. Ltd.,Gurgaon
- 856. Sales-SAIPL
- 857. Project Management for Network Qualit
- 858. Business Intelligence and Analytics
- 859. Network Rebranding and ISO Process
- 860. Aftersales
- 861. 1. Developing Customer Satisfaction Survey Dashboard 2. Designing Pending Vehicles Chronology Sheet 3. Daily monitoring of the SDD and Pending Vehicles
- 862. Product Marketing
- 198 Spicer India Ltd.,Pune
- 863. Understanding and Standardization of Business Processes
- 864. Enterprise Management : Observation, analysis and take aways from the perspective of an Human Resource Intern
- 865. Implementation of Industrial Internet Of Things (Phase – 1, Digitization of production)
- 866. Puddle hole welding automation of Salisbury Line
- 867. Analysis of Toner Ring Breakage
- 199 SRF Ltd, Dahej
- 868. Capacity Improvement of a Product & As-Built Document Preparation of Multi-Purpose Plant
- 200 SRF Ltd.,Gurgaon
- 869. Capacity Expansion of P-14 Plant
- 870. Automation in Mapping of Multiple Projects
- 871. INVENTORY OPTIMIZATION & MAINTENANCE PROCESS STUDIES
- 201 StateStreet Global Advisors,Bangalore
- 872. Work done in FIXED INCOME, CASH AND CURRENCY
- 873. WORKING AS A PART OF GLOBAL EQUITY BETA SOLUTIONS TEAM
- 874. Transaction Cost Analysis
- 875. Work Done in Fixed Income,Cash and Currency Research (FICC)
- 202 Sun Mobility,Bangalore
- 876. Purchase Request Portal and Bus Station CCU
- 877. Analysis of TCO of differently fuelled three wheeler based on Primary and Secondary Research, Coordination of operations of Zoom Cars-Dominos field trial
- 878. Calculation of battery requirement for Operation of buses in Ahmedabad and monitoring their State of Charge and Temperature fluctuation during operation
- 879. Purchase Requisition Portal

880. Mapping Of Infrastructure(Electrical and Civil) Required for Electric Vehicles and Utilising Renewable Energy to Power EV
881. Thermal Management System for Smart Battery
882. Telescopic Fork Concept, Single Dock System, BUS QIS G-3 Pump testing
883. Development of production plan for 2,3 Wheeler swapping station from scratch and optimising the Production rate.
884. 1 Developing EV Power managing and monitoring system 2 Development of a data logging software for a multichannel Keithley datalogger 2701 for testing individual battery cells
885. Communication PCB Design and Assembly of Test jig for PCB Testing (BMS,SCU,DIU). Architecture and Assembly of MQIS CCU Provisioning
- 203 Symantec Software Solutions Pvt. Ltd. - Data Structures and Algorithms,Pune
886. Firmware analysis of IoT Devices and Exploration of anomalies in ICS network using Recurrent Neural Network
887. Malware classification by API Call sequence using RNN (LSTM)
888. Malware detection using RNN(LSTM) on disassembly of Windows PE files
- 204 Synergiz Global,Hyderabad
889. Business Development Unit and Data Analytics
890. BUSINESS DEVELOPMENT UNIT, PRODUCT DEVELOPMENT AND PROJECT MONITORING
891. Business development, project development and monitoring
- 205 Synopsys India Pvt. Ltd.,Hyderabad
892. Development of PDK
- 206 TapChief,Bangalore
893. Operations Processes – Customer Success Team
894. Operations Intern
895. TapChief’s Community Management and Content Marketing
- 207 Tata Autocomp Systems Ltd.,Pune
896. Operations and Product Management for iEDGE Learning
897. Data Consolidation & Benchmarking
- 208 Tata Chemical Innovation Center,Pune
898. Fatty acid based edible coating films and their analysis
899. Synthesis and Physicochemical Characterization of hydrophobic Silica
900. Comparative study of the processing of Green Mung and Chickpea (Chana) grains: Water absorption and different thermal treatments and using the best fit model to predict behavior of the grains.
901. Extraction of spice bio-actives by solvent extraction and their characterization
- 209 Tata Motors Ltd.,Lucknow
902. Testing and Analysis of Production Procedures for Source Identification and Mitigation of Defects
903. DESIGN OF LAYOUT FOR LEAN PRODUCTION SYSTEM IN VEHICLE FACTORY
904. ZERO DEFECT STATIONS
- 210 Tata Motors Ltd.,Pantnagar
905. Failure Analysis of 800CC DICOR Timing belt
- 211 Tata Motors Ltd.,Pune
906. Should Costing and parts database management for chassis.
907. Low Cost Automation
908. Commissioning and Productionization of G400 Gearbox
909. Should costing for new projects and database management for body and trims aggregate.
910. Establishing process maturity for ULTRA 1412 vehicle production rampup
911. Should Cost Analysis and parts database management for &Power train&
912. Capacity Enhancement of TATA Winger,BIW Linefrom 22 to 32 units/shift
913. Production Stabilisation and Rejection Control of 497/4SP cylinder block line(D8)
914. reduction of average throughout time of Tata ultra 1014 trucks
915. Reducing throughput time of Tata Winger assembly line
- 212 Techure Structures Pvt Ltd.,Nagpur
916. ASI Modelling
917. Scoper Add-in for Revit 2018
- 213 Tejas Networks,Bangalore
918. Optimization of 4G LTE and protocol stacks
919. Optimization of LTE architecture
920. Optimization of LTE Network

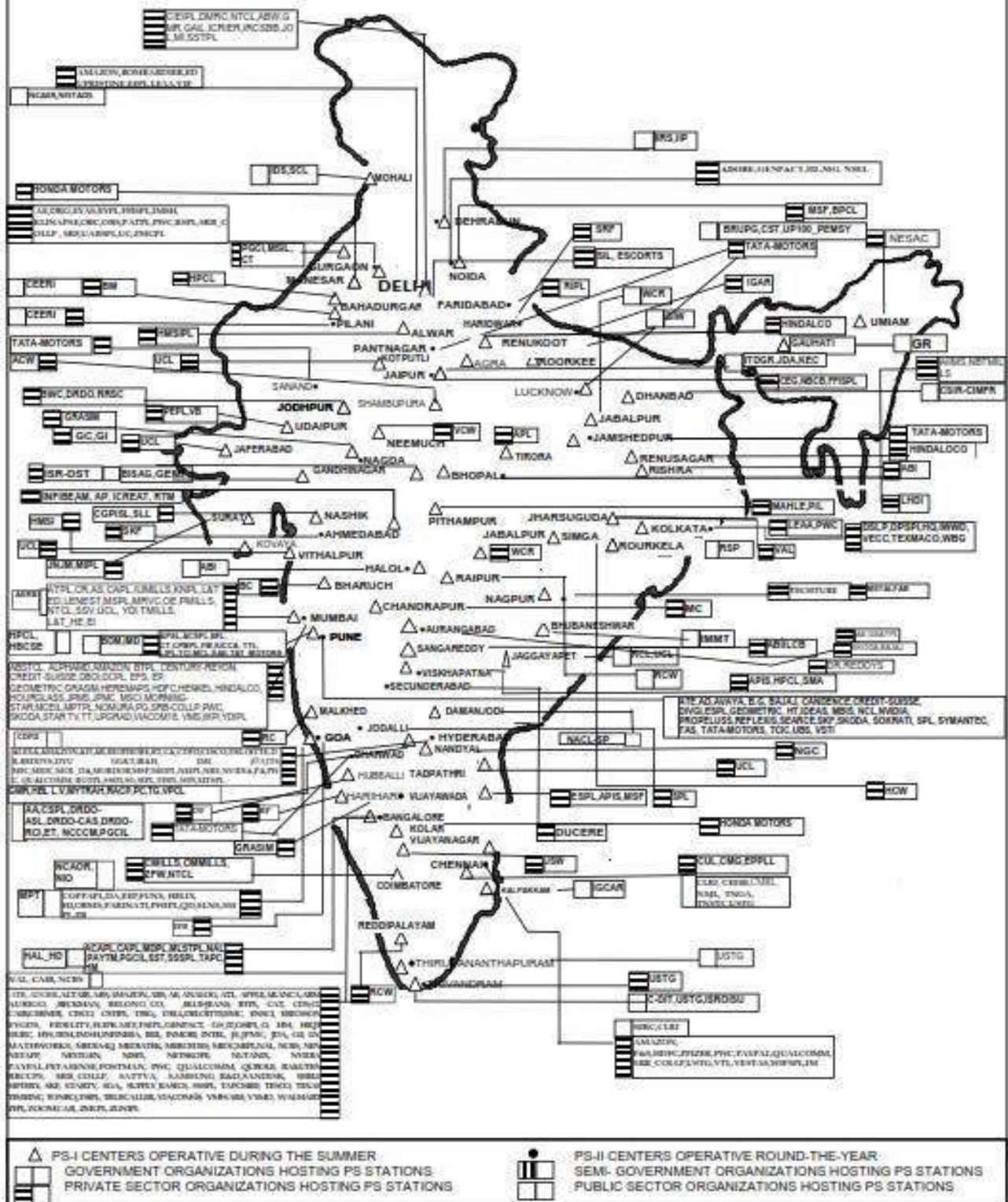
- 921. Design of Digital Control for DC-DC converter
- 922. Relay Node
- 923. Optimisation of the LTE architecture and protocol stacks
- 924. Oscillator Characterization Environment
- 214 TESCO Hindustan Service Centre,Bangalore
  - 925. EDA on Slot Price Matrix
  - 926. AUTOMATION OF TITAN DASHBOARD
  - 927. Study of Website behavior of customers to prevent fraud
  - 928. Site Analytics
  - 929. Post Implementation Review
- 215 Texas Instruments (I) Pvt. Ltd - Systems,Bangalore
  - 930. DESIGN OF 50W COMPACT ISOLATED DC-DC CONVERTER
  - 931. Design of test methodologies and ATE system for device characterization on ATE.
  - 932. Digital Pattern Creation of SWD and PMBus Protocols Using Perl Programming
- 216 Texas Instruments (I) Pvt. Ltd. -Analog,Bangalore
  - 933. Validation and characterization of Low power Analog IPs Testchip for Supervisor IC Ames and Orlando
  - 934. High Current Hot Swap Design
  - 935. SimpleLink Cadence Constraint Developer Validation and Signoff
- 217 Texmaco Rail & Engineering Ltd.,Kolkata
  - 936. Optimization and Standardization of various processes in Foundry by metallurgical and statistical approaches
- 218 Thinkerbell Labs - Electronics,Bangalore
  - 937. Studying PCB designing and developing a smart Battery Management system
- 219 Thinkerbell Labs - People Operations,Bangalore
  - 938. Business development at Thinkerbell Labs Pvt. Ltd.
- 220 Thorogood,Bangalore
  - 939. Building end-to-end Data Analytics Systems using Business Intelligence Tools
  - 940. Migration to the latest features for all current software versions
  - 941. Complexity Reduction (CoRe)
  - 942. Providing Business Intelligence and Analytics Solutions on Point of Sales Data to a Multi National Corporations
- 221 UBS Business Solutions (India) Private Limited - GRC,Mumbai
  - 943. Automation and Analysis of various data quality controls using excel macros
  - 944. Business Understanding, Management, And Automation For Credit Risk And Data Integrity Using Excel Macro And VBA
  - 945. Automation of Data Feed Inventory Metrics & Generation of Monthly wise Reports
  - 946. CCS CONDUCT RISK DASHBOARD
- 222 UBS Business Solutions (India) Private Limited - Group Operations,Hyderabad
  - 947. Reconciliation of securities & Breaks Reduction
- 223 UBS Business Solutions (India) Private Limited - IMT ,Pune
  - 948. CONTROL TESTING FOR SOX COMPLIANCE
  - 949. Testing of Design and Operating Effectiveness of Key Procedural Controls
- 224 UBS Business Solutions (India) Private Limited - RAS FINANCE,Pune
  - 950. Financial Reporting and Analytics at UBS
  - 951. Leverage Ratio Denominator Reporting on Microstrategy And Automation by Python
  - 952. Report publication and automation using Business Objects and Excel-Macro
  - 953. REPORT DEVELOPMENT, PROCESS TRANSFORMATION AND AUTOMATION FOR REPORTING & ANALYTICS SERVICES (RAS) USING EXCEL- MACRO
  - 954. Liquidity and Funding Team Workings (Group Treasury)
  - 955. AUTOMATION USING EXCEL MACROS FOR REPORTING & ASSESSING KEY PERFORMING INDICATORS USED AT REPORTING ANALYTICS SERVICES (RAS)
- 225 UBS Business Solutions (India) Pvt. Ltd. - IMT,Mumbai
  - 956. Testing of design effectiveness and operating effectiveness for independent management testing team
- 226 UBS Business Solution s(India)PrivateLimited -Group Operations,Mumbai
  - 957. AUTOMATION OF FINANCIAL DATA HANDLING USING DATA MANAGEMENT INBOX (DMI PORTAL)
  - 958. Reporting and Analytics: Non Core Legacy and Global Asset and Liability management



- 959. UBS – Central Supervisory Team
- 227 960. Automation of Business processes using Machine Learning and deep learning at UBS Mumbai  
Udhyan Learning Foundation, Bangalore
- 961. Provide assistance to Udhyan Vyapaar team
- 228 UltraTech Cement Limited (Ahura Centre), Mumbai
- 962. Saksham: Security Event and Incident Management with Behavioral Analytics
- 963. Hands Free Access Via Virtual Private Assistant
- 964. Security Incident and Event Management with Behavioral Analytics
- 229 United Airlines Business Services Pvt. Ltd., Gurgaon
- 965. Network Planning & Revenue Optimization and Optimal Seat Assignment
- 966. Develop an Artificial Intelligence model to Recommend Personalized Destinations to Employees.
- 230 UPGRAD, Mumbai
- 967. Content writing for BDE program
- 968. Content and Academic Course Development: Software Development Specialization in Blockchain
- 969. Content and Academic Course Development: Software Development Engineering
- 970. Content Development
- 231 UST Global - Cochin, Cochin
- 971. Automated Testing Framework Robot Framework
- 972. Developing an SAAS for web infrastructure autoscaling
- 973. e-commerce Automation
- 974. Tool evaluation for app development
- 975. Analysis of financial aspects of the company
- 232 UST Global - Chennai, Chennai
- 976. OUTSYSTEMS APPLICATIONS AND SCRIPT ANALYZER
- 977. 1. Intern Portal 2. Chat Bot
- 978. Car Damage Detection and Estimation
- 979. Netapp Chatbot and Payment Automation
- 980. Payment Automation
- 981. Car Damage Detection & Estimation
- 233 UST Global - Trivandrum, Trivandrum
- 982. OPAL-Data Privacy Framework-Improving User Privacy By Open Algorithms
- 983. Business Analysis & Operations Research
- 984. Using quantum annealing to optimize complex traffic flow problems
- 985. SCM Blockchain
- 986. AI bug tracking
- 987. UStore- backend Development
- 988. Trust Platform (OPAL)
- 989. Real time data analytics
- 990. Controlling robotic arm and building humanoid robot
- 991. Improving User Privacy by Open Algorithm
- 992. Backend Development
- 993. Operations management & Marketing-revenue campaigns
- 994. OPAL
- 995. Blockchain and ARVR
- 996. Quantum Computing
- 997. Blockchain: Use cases
- 998. Trade Funds Management Platform
- 999. Dashboard for Revenue, EBITDA etc.. of the company
- 1000. Sentiment Analysis
- 1001. Improving User Privacy By Open Algorithms
- 1002. Computer Vision - Robotics
- 1003. Intelligent Loan System
- 1004. UStore-ID Card Detection
- 1005. UStore (Front-end Web Development and UI/UX and API Integration)
- 1006. UI Development
- 1007. OPAL-Routes, Algorithms, API calls, UI&apos;s
- 1008. AI bug tracking, ARVR, RPA

- 234 Vasant Chemicals and Organics Ltd.,Hyderabad  
1009. Development of MANCAT Uniflow Process
- 235 Viacom18 Media Pvt. Ltd - Corporate Strategy,Mumbai  
1010. Generation of KPI reports and business intelligence dashboards  
1011. Ad Break And Episode Scheduling For Viacom18 TV Channels and Post-Analysis
- 236 Viacom18 Media Pvt. Ltd - Digital Ventures,Mumbai  
1012. SPEAR (Sales Process Excellence using Automation and Re-engineering)  
1013. Audience Profiling & Sales Deck Design  
1014. Branded Content Repository and Analysis  
1015. MAVRIC (Management of Audiences at VOOT through Activation and Data Enrichment)  
1016. VOOT KIDS FUN LEARN MCQ DATABASE MANAGEMENT AND IDENTITY DESIGN FOR VOOT
- 238 VMS (Vakil Mehta Seth) Consultants Private Limited,Mumbai  
1017. structural analysis and valuation  
1018. Development of Structural Plan for Civil Structures
- 239 VMware Software India Pvt. Ltd.,Bangalore  
1019. Software Development SDDC-Manager  
1020. VCMS for VVD  
1021. SOFTWARE DEVELOPMENT OF SECURITY OPERATIONS FOR SDDC MANAGER
- 240 Wealth India Financial Services Pvt. Ltd,Bangalore  
1022. Product Development  
1023. Referral Marketing and SEO  
1024. engagement strategies and retention management
- 241 Wealth India Financial Services Pvt. Ltd.,Chennai  
1025. FundsIndia Workforce Management And Innovation
- 242 Worley Parsons India,Mumbai  
1026. Development of GIS based Health and Safety Web Application (AERGOS)  
1027. People Detection using OpenCV
- 243 Xilinx India Technology Services Pvt. Ltd.,Hyderabad  
1028. NOC ANALYSIS  
1029. SYSTEM VALIDATION  
1030. Electronic Design Automation  
1031. Software Architecture Documentation-Petalinux  
1032. Design Analysis and Benchmarking
- 244 Zinnov Management Consulting Pvt. Ltd (IT Project),Bangalore  
1033. Implementing APIs and Rule based Logics for the enhancement of the DRAUP platform
- 245 Zinnov Management Consulting Pvt. Ltd.,Bangalore  
1034. Customer Deliverables  
1035. Zinnov India GIC Landscape Report 2018  
1036. INDIAN STARTUP ECOSYSTEM LANDSCAPE REPORT – 2018  
1037. Talent Analysis and Sales Enablement  
1038. Mergers & Acquisitions  
1039. Talent and Sales analysis  
1040. MERGERS & ACQUISITIONS AND ZINNOV ZONES IOT REPORT– 2018
- 246 Zinnov Management Consulting Pvt. Ltd.,Gurgaon  
1041. 1. Cloud maturity and compete analysis 2. Addressable SMB segment in India 3. Database of Tech companies 4. Overview of Large Enterprises  
1042. 1. ROCKET SOFTWARE PROJECT 2. WHITEPAPER TO PROMOTE HCI TECHNOLOGY FOR RETAILERS 3. WHITEPAPER TO PROMOTE DIGITAL ADOPTION FOR MANUFACTURING INDUSTRY  
1043. 1. Global IoT Security: Market Opportunity Assessment 2. Strategy to Accelerate Enterprise Digital Products in the Healthcare vertical 3. Setting up of a Global Development Center for a global Shipping company 4. India GIC Opportunity Analysis for RPA

# BITS PRACTICE SCHOOL STATIONS 2018-2019



#### Alumni Relation Cell

BITS Pilani had formed a new university-wide Alumni Cell led by Prof Arya Kumar, Dean, Alumni Relations in June 2017. This Cell will connect with the BITS Pilani global alumni network and involve them in the Institute's development plans in association with BITSAA (BITS Alumni Association). Alumni Cell during 2018 has been strengthened by appointment of Associate Deans for Pilani, Goa and Hyderabad campus and Faculty-Incharge for Dubai campus. The team has been further strengthened by induction of professionals for fund raising, data management and professional for communications and events are in the process of joining.

The Alumni Cell has a strong student-alumni team led by the Dean with the cross-campus support provided by Associate Deans/Faculty-in-Charges (FICs), Alumni Relations in each campus of BITS Pilani. The main purpose of the Cell is to constantly connect with alumni and conceptualize, develop and organize various alumni led initiatives related to campus development, student life and academic processes. The institute Alumni Cell and BITSAA would have seamless functioning across all processes.

#### Distinguished Alumnus Award 2018:

BITS Distinguished Alumni Awards (DAA) are presented to BITSians through a competitive awarding process, judged by some of the biggest names in the Industry and Academia. The awards are in recognition of the significant and outstanding contributions of the recipients in the area of entrepreneurship or academic teaching and/or research, corporate leadership or professional management of businesses.

"BITS Pilani Distinguished Alumnus Award" in 2018 to the following alumni:

S. No.	Name	Affiliation	Category
1	Prof. Reena Agarwal	Vice Provost for Faculty, McDonough Professor of Finance & Director, Georgetown Center for Financial Markets and Policy, Georgetown University, USA	Academia and Research
2	Prof. Prabhu L. Pingali	Professor and Director, Tata-Cornell Agriculture and Nutrition Initiative, Cornell University, USA	Academia and Research
3	Prof. Arun Somani	Anson Martin Distinguished Professor of Electrical & Computer Engineering, Iowa State University, USA	Academia and Research
4	Mr. Ajoyendra Mukherjee	EVP & Head - Global HR, Tata Consultancy Services, India	Corporate Leadership
5	Ms. Prasanna Gopalkrishnan	Executive Vice President, Chief Digital and Information Officer, Boston Private, USA	Corporate Leadership
6	Dr. Anand S Rao	Lead (Data & Analytics) & Partner, Pricewaterhouse Coopers, USA	Corporate Leadership
7	Mr. Anupendra Sharma	Global VP of Growth & Business Development, Siemens Healthineers, USA	Entrepreneurship
8	Mr. Tushar Jain	Founder and Group CEO, Automat Industries Ltd	Entrepreneurship

#### Formation of Alumni Relations Student's Cell

To foster the activities of alumni relations such as conceptualizing, developing and organizing various alumni led initiatives related to campus development, student life and academic processes, and to bridge the gap between the alumni around the world and the institute, a twenty-two membered student-alumni team was constituted at Pilani campus that passionately worked under the five identified verticals of the cell including, (i) content and Research, (ii) Corporate Social Responsibility (CSR), (iii) Events and Logistics, (iv) Database, and (v) Yearbook.

#### Alumni Relations – Project Lakshya a

Two teams to take specific initiatives under Fundraising and Policies, Office Structure, Databases, Events under implementation of recommendations by BCG under project Lakshya have been formed Each team is headed by Associate Dean Alumni Relations. Associate Dean / Faculty-in-Charge in each campus created a campus

specific plan for the AY 2018-19 with initiatives in each of the area mentioned in Project Lakshya for Alumni Relations. Some key highlights of the plans are as follows:

- o Each campus will have
- o a batch re-union
- o enhanced events calendar
- o up-to-date database
- o a current and informative Alumni page
- o All Associate Deans / Faculty-in-Charges will help raise funds from alumni and corporate

Alumni Relations team meets every fortnight to review the progress on the plans while Student Alumni Relations Cell meets every week to review the progress on their plans.

#### BITS ECHO – a Newsletter

The four issues of the newsletter of Alumni Relations Cell-BITS ECHO, covering the important developments at the institute and alumni front were released during the year. This is one initiative that aims to bring BITS campuses closer to alumni. The alumni will get a feel of what's happening in Pilani, Dubai, Goa and Hyderabad campuses. Particularly newsbytes those are relevant to them. The purpose is to share, engage, invite and thank alumni. It would value the connect with BITS Pilani that has shaped alumni to face greater challenges of life and to bring in a name and fame to alma mater.

#### Prof S S R Memorial Teaching Excellence Award

Prof S S Ranganathan (SSR) Memorial Teaching Excellence Award - 2018, Instituted by BITS Alumni 1978-83 Batch has been conferred to Prof. Biju K Raveendran, Associate Professor, Computer Science, Information & Software Systems Department, in recognition of his excellence and consistent high standard of teaching at BITS Pilani, K.K. Birla Goa Campus. The awardee has been selected by a panel consisting of Prof G Raghurama, Director K K Birla Goa Campus, Prof A P Singh, Dean Academic–Undergraduate Studies, Prof Srinivas Krishnaswamy, Dean Academic-Graduate Studies and Research, Mr. N S Parthasarathy, Exec Vice Chairman & COO, Mindtree Ltd (Member of the Alumni nominated by Key-Alumni) and Prof Arya Kumar, Alumni Relations: Convener of the Committee. The selection was based on Innovations in Teaching Learning Process; Scholarship, Rigor and Depth in Teaching; Acceptability amongst Students; and Overall Contribution in Allied activities.

#### Online Alumni Portal Services Agreement - AlmaConnect

An agreement has been signed between Alma Connect solutions Pvt. Limited and BITS Pilani to build/manage and update database in an organised way to get regularly connected with our esteem alumni. BITS Pilani now has an official alumni community on AlmaConnect – an exclusive space for all BITS alumni to come together, share, relive memories and help each other move ahead. More than 17500 Alumni have already joined on the portal during last two and a half months.

#### Naming Right Policy

Naming Rights Policy was finalised and approved by the Governing Body during the year. The policy provides for naming rights towards contributions in different areas such as infrastructure facilities, scholarships, Chair professorships, setting up of labs etc. The Naming Rights in respect of Immovable properties at BITS is classified in the five categories namely - New Immovable Properties; Existing Immovable Properties under Renovation or Redevelopment; Existing Immovable Properties not undergoing Renovation or Redevelopment; Research Lab Equipment; and Movable Property-Books, Computers, Furniture etc. The policy was officially released in the Alumni meet held in Dubai on 8<sup>th</sup> December 2018.

#### MOU with Prof V Krishnamurthy family

A MOU has been signed by members of the extended Prof V Krishnamurthy family to create an endowment with an estimated corpus of over \$235600 for funding scholarships for qualified needy students to study at Pilani Campus of Birla Institute of Technology & Science (BITS). This endowment is created in recognition and honor of the services of Prof V Krishnamurthy and Mrs. Kamala Krishnamurthy to BITS and to Pilani during their 23 years of tenure from 1965 to 1988. The institute would contribute 50% of the total scholarship amount per annum towards tuition fee of the recipient of this scholarship.

#### MOU with Satish Goel

Dr Satish Kumar Goel, 1980 batch who did his dual degree in Chemical Engg. and MMS and thereafter MS and PhD from University of Pittsburgh USA in Chemical Engg. has set up first research fellowship in the name of his parents naming "Dr Goel's OMKARA Scholarship" to partly support a research scholar pursuing his research in the area of Chemical or Computing. Of the total endowment fund of Rs 21 lakhs; a sum of Rs 11 lakhs has already been remitted by him.

#### MOU with 1988 batch for BITS88 Scholarships

A MOU was signed between BITS Pilani and BITSAA International towards the announcement of a substantial ~ ₹1.5 crore (~\$200,000) gift to BITS-Pilani Campus that will support student success across disciplines. The 'Spirit of BITS1988 Scholarship', which is expected to yield ~ 10 lakhs annually, will be directed towards enhancing student success at the Pilani campus, via annual cash awards. The Scholarship celebrates the can-do attitude, esprit de corps of the entering Batch of 1988 and serves to fondly celebrate the memory of loved ones lost.

The Batch of 1988, which celebrated its silver jubilee reunion last year raised funds through a collective effort with the goal towards promoting active alumni engagement and making a difference across campus. As part of this sustained initiative, the beneficiary students each year will be chosen by BITS administration and each student will receive an award that will cover 25% of tuition fees. Starting January 2019, 4 students from the Pilani campus will receive the award for a period of 4 years. The fund will continue to award a new set of 4 scholars every year.

#### Alumni Guest House at Pilani Campus – Project

The need for Alumni Guest House with 100 rooms capacity was discussed initially in the Executive Meeting of Delhi Chapter held on 16th Sept 2018 wherein a core team consisting of Mr K Vijay Rao, Mr. C S Goel, Mr. Pradeep Sethi, Ms. Sandhya Prakash, Mr. Aman Jain and Arvind Bahl was formed for the project on Alumni Guest House to be built adjacent to VFast in Pilani campus with funding from Alumni. The need for such facility on campus has been identified for providing reasonable facilities on campus to Alumni visiting during Silver Jubilee, Golden jubilee, Ruby Meets, increasing number of Alumni visiting campus in groups and above all, to organise academic conferences with international participation, workshops and executive development programmes in association with Alumni. Subsequently meeting was held in Pilani on 7<sup>th</sup> October, 2018; wherein discussion centered on building ALUMNI GUEST HOUSE and the need for Alumni to raise around Rs. 24 Crores for the same. It was proposed to build around 100-room guesthouse, 2 conference rooms, Wifi and the latest technology facilities, state of the art bathrooms etc. over the 13,000 sqft per floor on the 30,000-sqft land area. Subsequently the conceptual AV, presentation and storyline has been finalized.

#### **Release of the Book "Robust Plastic Product Design: A Holistic Approach" by Mr. Vikram Bhargava at BITS Pilani Library**

BITS Pilani Library in association with Department of Mechanical Engineering organized the release of the book "Robust Plastic Product Design: A Holistic Approach by Mr. Vikram Bhargava on 13th November 2018. Mr. Bhargava an alumnus of the year 1968 of BITS Pilani is a renowned person and a fellow of the Society of Plastics Engineers. He served as the Director of Mechanical Engineering Services at Motorola Solutions in Holtville, New York. He is also a much sought after international trainer having trained around thousands of engineers and suppliers and a holder of 21 patents. His book is a masterpiece among the hundreds of books available on plastics by various authors. Mr. Bhargava insisted on the importance of plastics and the required reason for plastics to outweigh metals owing to the different properties associated.

#### Branding through Merchandising

A project on branding through merchandising – physical on all the four campuses and E - store has been initiated. This initiative would help strengthen the BITS Pilani brand and also serve in a small way as an alternate source of revenue. Based on the success after 1-2 years e-stores may be planned. While the revenue and profit is not high, this initiative initially would largely serve as enhancing brand of BITS Pilani.

#### Permanent E - mail addresses

A project that was launched last year to provide permanent e-mail addresses to all alumni have been smoothly implemented and all passing out students have smoothly switched over from their on-campus e-mail IDs to alumni based permanent email ID's for all the four campuses. This would help a lot in smooth communication with Alumni.

Alumni Contributions April – Dec 2018

Alumni contributed a total sum of Rs 2.86 crores under various initiatives between April to Dec 2018; over and above the major contributions amounting to a sum of Rs 1 million pledged by Mr. Prashant & Ms Anuradhha Palakurthi for research endowment, \$ 333031 by 1993-97/98 batch, and \$ 120000 by 1989 Batch

Event on Life in a Consulting Firm

Gopalkrishna Vishwanath, 3rd most viewed Quora writer from India over 40 years of work experience delivered a talk for the benefit of all campuses on August 10, 2018 on “Being BITSian: in retrospect”

An interactive panel discussion on “Life in a Consulting Firm” was organized on November 03, 2018, which provided an insight of what it takes to get into, survive and move upwards in large consulting firms. The panel consists of;

- Mr. Rohan Passey, Senior Associate at BCG
- Mr. Gaurav Jha: Consultant at Deloitte Consulting
- Mr. Nishant Mishra: Senior Associate at BCG
- Mr. Sanchit Aggarwal: Consultant at PwC

#### **Inauguration of Kishore Kumar Gupta’s Electrical Machine Laboratory**

A new state of the art Electrical machines lab was inaugurated at BITS Pilani on 15th November 2018. This lab was funded completely by a BITS alumnus, Shri Kishore Kumar Gupta. Along with this event an interactive session based on Technology-Driven Entrepreneurship was held with Mr. K.K. Gupta. Kishore Kumar Gupta graduated in 1970 as an electrical engineer. He has an experience of working with elite organizations in various sectors like defense, automobile and aerospace engineering. His company was responsible for manufacturing some of the parts for ISRO that were used in space missions like Chandrayan and Mangalyan. Mr. Gupta spoke on a wide range of topics and gave valuable advice to BITSians on entrepreneurship. Here are some excerpts from the session.

Dr Anand S Rao Distinguished Alumni awardee 2018

Dr Rao visited the campus between 8<sup>th</sup> and 10<sup>th</sup> December 2018. He is a Partner in PwC Advisory, with over 29 years of experience in industry. He leads Artificial Intelligence efforts globally and the Innovation Lead for US Analytics. He is responsible for a team of practitioners who work with C-level executives, advising them on a range of topics including global growth strategies, marketing, sales, distribution and digital strategies, behavioral economics and customer experience, risk management and statistical and computational analytics. He interacted with faculty members in the area and delivered talk on applications of AI in wide ranging industries. He also discussed with Prof Souvik Bhattacharyya about the possibilities of building a core group of BITSians in the area and the faculty members to strengthened research endeavours in the area. He also discussed about the possibility of linking for collaboration with Michigan University as well as contributing back to the Alma Mater in tangible ways.

Alumni Batch Visits

During the year, a number of alumni batch visits were organized. The details of these are as follows:

Ruby Jubilee Graduation Celebration of 1973 –78 batch

80 Alumni of 1973-78 batch along with their spouses celebrated ruby reunion between 16th and 18th March 2018 on campus. The enthusiasm, energy and concern for the Alma Mater shown by the batch were admirable. Latest developments on BITS front and Alumni connect were shared by Prof A K Sarkar and Prof Arya Kumar with the batch. Batch formed a core team to initiate the process of contributing back to the alma mater both tangibly and intangibly and initiated discussions amongst the group for the same.

Golden Jubilee Graduation Celebration of 1963 –68 batch

More than 85 alumni of 1963-68 batch celebrated their Golden Jubilee on campus between 21st February and 24th February 2018 and committed to Rs 50 Lakhs for building Alumni Guest House on campus. Prof Souvik Bhattacharyya addressed the batch to share about developments and future plans of the institute including a distinct impetus that is being given to Alumni connect to involve them in the development of the institute. Veteran BITSians of the batch took lot of interest in knowing about developments and were keen to get engaged with specific endeavours of the institute.

#### Ruby Jubilee Reunion Celebration of 1978 -83 batch

Reliving the old times, hanging out at the old spots with friends and families, around 220 alumni from 1978 batch (with families) arrived Pilani campus on November 16, 2018 afternoon. Later that evening, a musical performance, the very first concert of the Juju Productions, titled: The Desert Storm in the BITS Auditorium for the entry of the 1978 batch was held. Mrs. Anuradha Palakurthi (1984 BITS Pilani entrant) along with a 39 Bollywood Musicians band with the lighting and videography done by Yashraj Films, open to all fellow Bitsians and faculty graced the evening. The next day, campus tours followed by a snap session at Rotunda and a video interview series: THE BITSIAN PORTRAITS in which each of the alumni encapsulated their journey so far from the times they had spent in BITS to the work they're currently indulged in, all in a 20 minute video. This was followed by an event which was conducted for the very first time: The Student Alumni Meet which served as an interactive platform for the students to get to know their college better. The evening witnessed the various talents of our alumni in the BITS Auditorium where they had a gala time singing and dancing their hearts out during the gathering followed by a decent dinner at Vfast hostel. Leaving a legacy behind for us to follow and with a sense of pride they bid adieu to their alma mater the morning of November 18, 2018. The meet witnessed the very first of its own initiative at BITS by Mr. Prashant and Mrs. Anuradha Palakurthi who donated 1 million USD for research to the institute. In addition, 1978-83 Alumni Batch has taken a collective lead to mobilise funding to contribute back to their alma mater.

#### Silver Jubilee Graduation Celebration of 1989 -93 batch

On 23th November's afternoon, the 1989 alumni batch arrived Pilani campus to celebrate their Silver Jubilee reunion. The celebrations commenced with the aarti at the glorious Saraswati temple in the campus, where the alumnus and alumna of the 1989 batch were dressed in ethnic wear with rajasthani flavour, comprising of kurtas, pagadis, suits and dupattas. This was followed by a grand dinner in RB Mess. The next day, campus tours were arranged by the volunteers of the Alumni Relations Cell showcasing the infrastructural development that has occurred in the campus, which was followed by a snap session near new academic block. Thereafter a group of alumni refreshed their memories by playing a cricket match in Med-C ground, while others explored the library, hostels, workshop and academic blocks through a self-guided tour. Further, an interactive session of students with a panel of alumni followed by a discussion session with the leadership and faculties, where the 1989-93 alumni batch announced to set a collective target of 120,000 USD towards promoting active alumni engagement and contributes back to their alma mater. In the evening, the batch had a great time singing and dancing their hearts out during the music night organized in BITS Auditorium, after the dinner in VFast. On Sunday morning, many of the alumni had tears in eyes while departing from their alma mater, and the reunion has created long lasting memories for them to cherish for years to come.

#### Silver Jubilee Reunion Celebration of 1993 -97/98 batch

The 1993-97 batch reunited in a celebration of 25 years since their beginning of a lifelong journey of being BITSians. The two day visit was from 22nd to 24th of December in the chill Pilani weather. This was a special silver jubilee celebration and the revisiting batch came in a good strength of 200+ attendees. While the current students were off campus for their well deserved winter break, the alumni rejoiced their campus life visiting every stop from the Meera Bhawan to Nagarji's Redi. The batch was addressed by Prof Arya Kumar, Dean, Alumni Relations, Prof Rajeev Sakhuja, and Associate Dean, Alumni relations, Pilani campus and Mr. Manish Dave, Asst. Vice President, Aditya Birla Group and warmly welcomed them back to their alma mater. The batch regaled in performances of professional singers and performers that entertained them at VFAST. The campus tours had the batch in awe of the development that the amenities and services for current students and faculty have taken. They further met together with representatives from the institution to chalk out plans for setting up plans and endowments to give back to their alma mater, dubbed "The Legacy". Concluding with a fun show of their hidden talents, they refilled the Audi with their performances before packing to bid farewell to their alma mater till the next time they revisit. The batch of 1993-98 has set themselves a target of contributing \$333031 to their beloved alma mater. The funds thus generated, would be used for high priority needs of BITS Pilani after a collective decision by the batch.

#### Farewell to Graduating Students -Diaro's Party

A high tea party was organized to bid a farewell to graduating students of class 2018. Farewell to graduating students of 2014-18 batch of First degree and 2016-2018 batch of Higher degree was held at the VFAST lawns on Friday, 27<sup>th</sup> April 2017. Speaking on the occasion, the Director, Prof A K Sarkar, congratulated the students and called upon them to make their family and their institution proud. Prof Surekha Bhanot, Prof K N Sachdev, Prof Shibashish Chowdhury and Prof H O Bansal shared their thoughts for the benefit of the graduating students.



Similar farewell graduating party was organized on 25th November 2018 to bid farewell to graduating students of class 2019. Around 500 students of 2015-19 batch of First degree and 2017-2019 batch of higher degree were present in the function. Vice Chancellor, Prof Souvik Bhattacharyya, Director, Prof A K Sarkar, and Prof Arya Kumar, Prof Surekha Bhanot, Prof Srikanta Routroy shared their thoughts with students and wish them very best in their future endeavors and advised them to be connected with their alma mater. The year book of the graduating class of students 2019 was also released by the Vice Chancellor and the Director.

Several students also spoke on these farewells and conveyed their gratitude to the Institute and the teachers for helping them learn and grow. They said that their learning at BITS has made them better human beings while building leadership qualities.

On-campus Lectures : Alumni Relations Cell of BITS Pilani, Pilani Campus has organized a number of On-campus talks from January – December, 2018.

Diamond Jubilee - BITSAA Delhi Chapter

BITSAA Delhi chapter celebrated Diamond Jubilee of formation of Alumni chapter in Delhi by magical and thrilling musical performance by Bindaas BITSians - group who have decided to connect only at a musical level. Their focus is on regular get-together's across India where BITSians can bond over music and mirth... batch barriers are broken and all BITSians are welcome. More than 500 BITSians participated in the evening meet wherein founding members Mr. S K Kaila, Mr. A C Talwani, Mr. B S Sandhu, Mr. O P Puri, and Mr. S P Sachar of Birla Engineering College Old Students Association (BECOPA) formed in 1957 were felicitated along with major contributions of Mr. Vinod Puri to keep strengthening the BITSAA Delhi Chapter. Arya Kumar, Dean Alumni Relations shared thoughts about distinct impetus being given to strengthen Alumni bonding and connect with the Alma Mater. It may be mentioned that BITSAA Delhi Chapter has taken pioneering efforts by way of organizing the first BGM in Gurgaon and has been actively involved in contributing back to the Alma mater in multiple ways.

Batch

Indore Chapter BITSAA organised a meet on 17th March 2018 wherein Prof L K Maheshwari former Vice Chancellor was felicitated and more than 30 BITSians from Indore City participated. Prof H S Moondra, former Professor in Civil Engineering and Unit Chief Maintenance unit also joined the meet.

Jaipur Chapter BITSAA organised a meet cum AGM of Jaipur Chapter meet on 28<sup>th</sup> Oct, 2018. Alumni across 1950s to 2016 participated in the meet. Dean Alumni Relations participated in the meet and shared about initiatives being taken by Alumni Relations.

Chennai Chapter BITSAA organized Annual Meet on 5th January 2019. More than 100 Alumni across batches from 1971 to 2016 participated in the meet. Mr. Praveen Kumar Alumnus from Bangalore performed a comedy show which was much cherished by all. Prof Souvik Bhattacharyya, Vice Chancellor and Prof Arya Kumar Dean Alumni Relations shared thoughts about developments on institute front and upcoming challenges. The institute has chalked out strategic thrust areas including Alumni connect and bonding as one of the key pillars for future growth of the institute. The Institute needs to give a big push to research agenda and innovation & entrepreneurship in the coming years. Prof Battacharyya highlighted about various initiatives including AlmaConnect - an interactive platform, Naming Right Policy that provides an opportunity to contribute in different initiatives of the institute. He highlighted about various past initiatives taken up by BITSAA including recent ones by Mr. Prashant & Ms Anuradha Palakurthi for research endowment fund, Mr. Balaji for scholarships and Mr. K K Gupta for Electrical Machine Lab etc. The Alumnus was eager to contribute back to their Alma Mater in various tangible and intangible ways. It was decided by the chapter to form a team to connect with Alumni in the chapter and work out the ways and means in which chapter could contribute back to the institute including research agenda and Alumni Guest House project."

## Dubai Campus

Talk by three Distinguished Alumni Awardees was organized by the Alumni Relation on 2nd September 2018. Dr. Anand Rao, is currently Global Artificial Intelligence And innovation Lead and Partner at Price water House Coopers, USA. Dr. Rao shared his in depth knowledge about artificial intelligence with students and the faculty on 2nd September 2018. He gave an update on various innovations in the field of AI and also shared the contribution of his company in the field of artificial intelligence. He also spoke about the futuristic application of AI in fields like medicine, manufacturing, economic modeling, crime solving, smart home devices, etc. His ability to present the subject in an interesting way made the talk a successful.

Professor Reena Agarwal, Vice Provost for Faculty at Georgetown University and Robert E. spoke on finance and Technology. She began her talk with describing her struggle in early days on how finance and technology were two distinct disciplines and with changing times, these have joined hand. She introduced the idea of FinTech where technology is used to improve activities in finance and gave an update on the use of FinTech by startups and established companies. She also gave an insight on cryptocurrency and its importance in future.

Ms Prasanna Gopalakarishna, currently the Chief Information Officer, Consumer and Small Business Operations at Bank of America, Charlotte, NC. Interacted on Challenges in Technology Startup. With everyone wanting to be successful, the challenges we all face are enormous. Ms Prasanna made the understanding easy by quoting her own examples during her struggle and the challenges she faced in her technology start up. She shed light on how to manage expectations, funding and be prepared for high risks we face in a startup. She motivated the audience to nurture their business ideas to be leading entrepreneurs.

**ENGAGE'18** was organized at Dubai campus on 8th December 2018. It was an alumni meetup which focused on providing alumni a platform to network and interact with each other along with a walk down the memory lane. The event was organized by the Alumni Relations Division in collaboration with BITSAA Middle East. The event saw an enthusiastic participation from alumni residing in UAE. The event began with address by Vice-Chancellor, Prof. Souvik Bhattacharyya who presented the growth of Alumni network and BITS over the years. He emphasized on encouraging the collaboration between alumni and BITS Pilani, to achieve greater heights. He highlighted the new initiative, ALMACONNECT which is a virtual platform, made available for alumni to connect and network. Prof. R.N Saha, Director, BITS Pilani Dubai Campus, addressed the gathering with details on the achievements of the BITS Pilani Dubai Campus students. He briefed the numerous ways in which alumni can play a key role in enhancing the University on all aspects. He supported it by stating a possible chance of stopover at BITS Pilani Dubai Campus, for the alumni travelling through UAE. Further, Prof. Arya Kumar, Dean Alumni Relations, elaborated on the contribution of Alumni and their primal role in sustaining the development of the University. Ms. Sandhya Prakash, Chairperson, BITSAA International, focused on the various contributions and initiatives taken by alumni and detailed on some of her projects like the BITS peacock which aided the growth in numbers of peacocks in the Pilani Campus from 20 to 100 pairs over the period. Mr. Sharma, an alumnus from Pilani campus and the Managing Director at Techmart World highlighted the need for research to stimulate the growth of the university and also elaborated on it by painting a bigger and global picture. The gathering witnessed the release of the Naming Rights Policy by Vice-Chancellor, Prof. Souvik Bhattacharyya, Ms. Sandhya Prakash, Chairperson, BITSAA International, Prof. R.N Saha, Director, BITS Pilani Dubai Campus and Prof. Arya Kumar, Dean Alumni Relations. Light music and dance came in as ice breakers for the event. Some of the talented alumni participated in singing and later shared some experiences at BITS. The narration of their experiences, from their college days kept the audience rolling in their chairs. The success of the event is to be accorded to the team, faculty, BITSAA and many individuals who helped in making this event successful.

BITSian day was celebrated on 3rd August 2018 at Jazz@Pizza Express, Dubai. The event saw a good turnout of alumni both residents as well as passerby's. The event was jointly organized with BITSAA ME.

A number of interactions were arranged with Alumni. On the 6<sup>th</sup> March 2018, the Alumni Affairs Division arranged a talk on ENTREPRENEURSHIP IN THE CONSUMER INTERNET BUSINESS, by Mr. Kavikrut, the Chief Growth Officer, OYO Rooms. Mr. Ganesh Shankar, CEO of FluxGen interacted with students on 23rd October 2018. IB Cricket CEO, Raja Tirumalasetty and Siddharth visited Dubai campus to explore the possibility of business development in UAE. They displayed their gaming prototype of virtual cricket to the students, who enjoyed the demonstration.

On the 31<sup>st</sup> March 2018, the Alumni Affairs Division organized a 2 hour open house with Mr. Ravindra Bhan allowing students to interact with him as he brings with him more than 30 years of experience in various fields. Mr. Bhan is an internationally experienced Business manager having contributed to growth and value at business from India, Europe and the Middle East. This session was arranged by Mr. Udayan Gaidhani (Alumnus).

Mantra Awards selection process was coordinated and completed on 25th January by a six member panel comprising of Dr. Trupti Gokhale - Faculty In-charge, CIIE, Dubai Campus, Dr. Shazi Shah Jabeen- Professor, Humanities and Social Sciences Department, Dr. A. Srinivas Rao- Associate Professor, Humanities and Social Sciences Department, Dr. Natesa Prasad- Professor, Humanities and Social Sciences Department, Dr. Nishant Pandya- Assistant Professor, Chemical Engineering Department, Mr. Pranay Addepalli- Member CIIE. The Mantra awardees were conferred upon the following:

Outstanding Leadership- Male	Rahul Jain	2014AAPS0225U
Outstanding Leadership- Female	Sharon Aldrin	2014AAPS0198U

Social Leadership	Harshal Mittal	2014A7PS0249U
Entrepreneur of The Year	Gowtham S	2014A7TS0084U
Innovator of The Year	Mihir Prabhudesai	2015A7PS0198U

The Division organized a one day training program on 'Project Management using Microsoft Project Professional 2013' on 10th February 2018 by Mr. Lalit Jain (Alumnus). This training session focused on the importance, use, and construction of an effective plan to aid in the management of projects while in college and afterwards. To construct a plan, he encouraged the participants to use the Microsoft Project Professional 2013 software, which had multiple features needed to organize work, and incorporate changes that might occur along the way. He majorly focused on the 10 project Management Knowledge areas, project charter examples of WBS also giving equal importance to Organization structures, Project Life Cycle and the Stakeholders.

Alumni Relations Division congratulated Ms. Sandhya Prakash on being appointed as the New Chairperson of BITSAA International, by presenting her some beautiful flowers.

### K K Birla Goa campus

**BITSians Day:**

'BITSians Day' was celebrated on 3<sup>rd</sup> August, 2018. A BITS – RUN (Marathon) was organized on the same day to celebrate the spirit of "Once a BITSian, Always a BITSian".

**Embryo & On -campus Lectures:**

Alumni Relations Cell of BITS Pilani K K Birla Goa Campus has organized 11 Embryo & On-campus talks from January – December, 2018.

**Metanoia:**

Keeping in mind its resolute mission to keep the alumni of BITS connected to their Alma mater and to maintain the integrity and strength of the vast alumni community, Alumni Relations Cell conducted the fourth edition of the annual BITS Alumni Summit: Metanoia: The journey of Change 2018 on 25<sup>th</sup> of August, 2018. The speakers reminisced about their life back at BITS campuses and their journey thereafter.

Seven speakers who were invited are:

- Surabhi Dewara, Founder and CEO of careerguide.com
- Sameer Qayoom, BITSAA 30 under 30 award winner and founder of a Football start-up in Kashmir
- Chintan Zalani, A renowned writer, blogger and content marketer
- Jatin Adlakha, Founder and Director of Wander Gupt
- Shruthi Vishwanath, A musician, educator and composer
- Mani Shankar, A Bollywood director, holographic technology expert, writer and speaker.
- Prithviraj Chavan, An Indian politician who was the 17th Chief Minister of Maharashtra

**Research Scholarship:**

One of our alumni Mr. Satish Sankaralingam initiated a research scholarship for BE students and an amount of Rs. 15,000/- was awarded to Manan Sarupria, Sahir Gill and Sanjeev Sripadraj Murthy and were awarded, Rs. 7500/-, Rs. 5000/- and Rs. 2500/- respectively as recognition to their research work.

**Summer Internship Assistance:**

This assistance is offered to encourage students to conduct summer research at educational / research institutions across India (including BITS' campuses).The following are the winners of the first edition of this assistance:

Name & ID number	Internship at	Award money
Vivek Khanna (2015A1PS0670G)	IIT Bombay	Rs. 17000
Sachita Nishal (2016A7PS0719G)	IIT Madras	Rs. 17000
Aditya Sinha (2015B3A70352G)	IISc Bengaluru	Rs. 8500
M Vaishnav (2015A1PS0548G)	IISc Bengaluru	Rs. 8500

Prof. Suresh Ramaswamy Memorial Awards:

This year's Prof. Suresh Ramaswamy Memorial Award was given to the project titled, "Design optimization of automobile crash box to improve performance test" done by Muskan Taneja. This project was selected out of the 10 projects that had competed.

Prof. S S R Memorial Teaching excellence Award:

This year's Prof. Prof. SSR Memorial Teaching Excellence Award was awarded to Prof. Biju Raveendran of department of CS & IS, BITS Pilani K K Birla Goa Campus.

*Regular Activities:*

Other regular activities like bi-annual Director's Tea Party, batch snap sessions, Alumni Relations Cell registrations, souvenir distributions, bringing out the yearbook 'Melange' for out-going students, hosting visiting alumni on campus, etc.

## Hyderabad Campus

Student Alumni Relations Cell, Hyderabad Campus

During this year, the student cell organized BITSian's day, graduating students farewell and talks. This year two additional scholarships per semester under 25% category was instituted by BITSAA under MCN scholarships. A brief about some of the prominent activities organized during the year are given below.

First Alumni Reunion

The things we do everyday are the ones we notice the least, yet miss the most. With this thought in mind, the Students Alumni Relations Cell (SARC) of BITS Pilani Hyderabad Campus organized the inaugural edition of the Alumni Reunion for the campus on the 12th of January 2019, to greet success for the 2008 and 2009 joining batches. The event kicked off on a formal note with an inauguration ceremony, welcome address by Director, address by Dean, Alumni relations and a recorded message from the BITSAA Chairperson. Several faculty members and alumni recollected their memories and this was followed by a formal tree planting tradition. Tours around the campus and an interactive bonfire session with Mr. Mr. Harsh Bhargava, BITS Alumni from Hyderabad Chapter interacted with Alumni and students and ensured everyone felt at home by the end of the night. The event was not only an achievement in itself, but also a great kickoff for future reunions of the kin.

Farewell to Graduating Students

Graduate Farewell party was organized on 29th November, 2018 at the Library Quadrangle. All the graduating students came together for the event that was graced by Director. Heartful words were exchanged between the faculty and the students. After a few to-be graduates and faculty spoke on the stage and recounted their best memories, the wonderful evening concluded with a memorable dinner.

BITSian Day

The BITSian community comes together in every way they can; virtual or offline. Celebrated on the first Friday of August every year, BITSians' day 2018 was celebrated with pomp. We had three speakers this year: Naresh Veeram, Sanket Deshpande and Shreya Nimma, in collaboration with BITS Embryo. They recounted their campus lives, and gave the students pointers on how to be well prepared, for college and post-college escapades.

BITS2MS/Ph.D. Series

BITS2MSPHD is an initiative for BITS Pilani students and alumni who aspire for MS and PhD programs from world's leading universities and institutes. The BITS2MSPHD initiative maintains an online group to connect MS/PhD aspirants with alumni pursuing graduate studies in universities all across the world. Mr. Abishek Manikonda presented a talk (BITS Embryo) last September, giving an overview about the MS and PhD application process. With increased collaboration with BITS Embryo and presence on social media, the team could reach out to even more alumni and students.

Embryo & On-campus Lectures

Throughout the academic year, BITS Embryo has connected eminent alumni to the campus, bringing first class inspiring talks to the students. To name a few, we have had Anudeep Durishetty (All India Rank 1, UPSC CSE 2017), Aditi Sharma (Foreign Internships), Ramit Mehta (Masters in management abroad). BITS Embryo will continue to bring in esteemed alumni to campus.

Alumni / Student Accolade

Mr. V. Hari Krishnan (2010B5A3402H), who joined Bhabha Atomic Research Centre after graduating from BITS Pilani - Hyderabad campus received the Homi Bhabha Medal for nuclear reactor physics for his performance during the training period.

Mr. Gajraj Rathore (2015A5PS0869H), a fourth-year undergraduate in B. Pharm has recently completed summer internship from University of Sherbrooke, Canada through the prestigious *Mitacs Globalink* program. With an acceptance rate of around 1%, Mitacs provides world class opportunity to students aiming to pursue careers in research.

Contributions Received From Alumni Between April, 2018 to Jan, 2019

S. No.	Name	Batch	Towards	Amount in Rupees
Pilani Campus				
1	Srinivas Reddy	1986	86 Batch Fund Fund	65,000.00
2	Meenakshi Sundaram Ganapathy Subramanian	1989	89 Batch Fund Fund	50,000.00
3	Vidya Raman	1989	89 Batch Fund fund	50,000.00
4	88 Batch RDF fund	1988	88 Batch RDF fund	4,179,153.00
5	Anirban Deb	1989	89 Batch Fund Fund	10,000.00
6	Anisha Agarwal	1963	Alumni Guest House	63,000.00
7	Amit Garg		Prabhat scholarship	10,000.00
8	Sandeep Kohli	1986	86 Batch Fund	15,000.00
9	K.E. Ayyar		Scholarship	100,000.00
10	88 Batch RDF fund	1988	88 Batch RDF fund	1,500,000.00
11	Rakesh Chandra	1960	Scholarship	65,250.00
12	BITSAA International		Scholarship	175,587.00
13	Sandeep A Varma	1986	86 Batch Fund	10,000.00
14	Sudha Mantri	1986	86 Batch Fund	20,000.00
15	Karthik Krishna		Prof. S. Venkateswaran Award	53,332.00
16	Ashok Kumar Agarwal		Dr. S.K. Agarwal Scholarship	33,737.00
17	Balaji Krishnamurthy		V. Krishnamurthy Scholarship	16,064,560.00
18	Rajiv Gupta		Alumni Guest House	33,982.00
19	Rahav Dave		BITSian Day Donation	2,000.00
20	Arun Panigrahi	2005	BITSian Day Donation	10,000.00
21	Vikasraj Kothari		BITSian Day Donation	1,000.00
22	Sai Krishna		BITSian Day Donation	4,000.00
23	Prasanna Gopi		BITSian Day Donation	2,000.00
24	T.V. Srinivasan	1963	BITSian Day Donation	10,001.00
25	Nikhil Agarwal		BITSian Day Donation	10,000.00
26	Swapnil Pandey		BITSian Day Donation	10,000.00
27	Shivani Reddy	2009	BITSian Day Donation	2,000.00
28	Rohan Singh		BITSian Day Donation	500.00
29	Kumar G Sommya		BITSian Day Donation	3,000.00
30	Anirudh Ramesh	2012	BITSian Day Donation	500.00
31	Subham Soni		BITSian Day Donation	5,000.00
32	Barath Shankar Subramanian	2000	BITSian Day Donation	25,000.00
33	Mayank Gupta	2010	BITSian Day Donation	5,100.00
34	XYZ		BITSian Day Donation	200.00

S. No.	Name	Batch	Towards	Amount in Rupees
35	Namburi Sai Sidharatha		BITSian Day Donation	1,000.00
36	Hemanth Yamijala		BITSian Day Donation	25,000.00
37	Sagar Shah		BITSian Day Donation	1,500.00
38	Rohan Kapadia		BITSian Day Donation	2,500.00
39	Siddharth Maheshwari		BITSian Day Donation	5,000.00
40	Chandrashekar Rammohan		BITSian Day Donation	12,000.00
41	Chinmay		BITSian Day Donation	15,000.00
42	Shankar Raman Nagesh		BITSian Day Donation	30,000.00
43	BITSAA International		Scholarship	130,413.00
44	Santhanakrishnan Vaidiswaran		BITSian Day Donation	10,000.00
45	T.V. Srinivasan	1963	Alumni Guest House	1,000,000.00
46	Ramesh Balasubramanian	1963	Alumni Guest House	50,000.00
47	S. Ravikrishnan	1986	86 Batch Fund	200,000.00
48	Sangeetha Chhajed	1963	Alumni Guest House	100,000.00
49	Pratap Pawar	1963	Alumni Guest House	1,000,000.00
50	Vignesh Raja	2000	BITSian Day Donation	1,500.00
51	Krishnakumar S Davey	1977	General Fund	25,000.00
52	Sampat Shekhawat	1963	Alumni Guest House	100,000.00
53	Venkatesh Kuppaswamy	1986	86 Batch Fund	15,000.00
54	Ramabhadran S Thirumalai	1989	89 Batch Fund	50,000.00
55	Harish Sethuraman	1989	89 Batch Fund	100,000.00
56	Babu Krishnan	1989	89 Batch Fund	100,000.00
57	Shantanu CH	1986	86 Batch Fund	15,000.00
58	Pramila Gupta	1967	1967-72 Batch	11,000.00
59	Bhu Dev Bhardwaj	1967	1967-72 Batch	11,000.00
60	Manoj Agarwal	1989	89 Batch Fund	500,000.00
61	Sudhir Rohhila	1989	89 Batch Fund	25,000.00
62	S. Ramachandran	1989	89 Batch Fund	25,000.00
63	R.K. Babutta	1989	89 Batch Fund	100,000.00
64	Shameek Ray	1989	89 Batch Fund	25,000.00
65	Ankush Kumar Tandon	1989	89 Batch Fund	125,000.00
66	Jashodhara Sabyasachi Mishra	1989	89 Batch Fund	5,500.00
67	Bindu Bhide	1989	89 Batch Fund	50,000.00
68	Sumeet Saluja	1989	89 Batch Fund	25,000.00
69	Shuvankar Banerjee	1989	89 Batch Fund	30,000.00
70	Harsh Chaudhary	1989	89 Batch Fund	100,000.00
71	Rajesh Sharma	1989	89 Batch Fund	25,000.00
72	Samit Jain	1989	89 Batch Fund	25,000.00

S. No.	Name	Batch	Towards	Amount in
73	Anju Gupta	1989	89 Batch Fund	25,000.00
74	Pramad Jhandyala	1989	89 Batch Fund	500,000.00
75	Priya Angelo	1989	89 Batch Fund	38,702.00
76	Amit Garg	1989	89 Batch Fund	4,941.00
77	Sridhar Narayanan	1989	89 Batch Fund	4,941.00
78	Suresh Venkatramani	1989	89 Batch Fund	49,410.00
79	Jai Natarajan	1989	89 Batch Fund	100,000.00
80	Satish Kumar Goel	1980	1980 Batch	1,100,000.00
81	K.E. Ayyar	1993	Scholarship	100,000.00
82	Karthik Kuppuswamy	1993	93 batch	100,000.00
83	Shreepad Shukla	1993	93 batch	66,606.00
84	Mathew Cherian	1975	Alumni Guest House	500.00
85	Chinmay Bhattar	2009	General Fund	40,000.00
86	Suresh Kumar Khurana	1963	Alumni Guest House	200,000.00
87	Tenmiles Technology		Student Enrichment Fund	23,760.00
88	Kanak Mal Medrecha	1974	General Fund	500,000.00
89	CMS Computers Ltd.		Scholarship	254,400.00
<b>K K Birla Goa Campus</b>				
90	Mr. Satish Sankaralingam	2005	Research Scholarship	15,000.00
91	Alumni Batch of 2010 and 2012		Summer Internship	51,000.00
<b>Hyderabad Campus</b>				
92	Hyderabad Chapter		Scholarship	68000.00
93	Ashok Agarwal	1959	Scholarship	34000.00
<b>Dubai Campus</b>				
94	BITSAA International		Mantra Awards	\$400

## RESEARCH PROJECT GRANTS

Pilani Campus

Ongoing Projects:

S.No	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
1	Synthesis of novel N-fused polycyclic compounds through transition metal catalyzed cascade/C–H functionalization reactions	Dr Anil kumar	DST	32.46
2	Synthesis and tubulin inhibition activity studies of novel indolyl heterocycles	Dr. Dalip Kumar	CSIR	22.36
3	Screening Decoration of Co-catalyst on the Ultrathin 2D Sheets of Metal Chalcogenides and their application in Photo electrochemical Water Splitting	Dr. Mrinmoyee Basu	DST-INSPIRE	35.00
4	Decoration of Plasmonic nanoparticles on Ultrathin 2D Nanostructure of Metal Chalcogenides and their application in photoelectrochemical water splitting and photocatalysis	Dr. Mrinmoyee Basu	DST-FT	19.82
5	Investigation of Unfolding and refolding of proteins by Gemini surfactants with varying spacer groups using fluorescence spectroscopy and small angle neutron scattering technique	Dr. Subit Kumar Saha	UGC-DAE	3.45
6	Effect of Chemical nature of spacer group, headgroups and counterions of gemini surfactants on solvation dynamics and rotational relaxation of coumatins in aqueous micelles	Dr. Subit Kumar Saha	CSIR	9.28
7	"Probing the Nature of Intermolecular X–H...Se (X = O and N) Hydrogen Bonding Interactions using Matrix Isolation Infrared Spectroscopy"	Dr. Shamik Chakraborty	DST	73.55
8	Asymmetric synthesis of [2.2.2] azabicyclo-isoquinoline derivatives: Towards the synthesis of related alkaloids	Dr. Indresh Kumar	DST	43.3
9	Studying Catalytic carbonylation of polyols- Sustainable Route to Carboxylic Acids from Renewable Platforms	Dr. Bibhas Ranjan Sarkar	DST	32.3
10	Synthetic Probes for Staudinger Ligation: Synthesis and Application of Phosphane Based templates	Dr. Kiran Bajaj	DST-WOS	29.7
11	Development and application of density functional reactivity theory based modeling techniques to understand the energetics of reactive and non-reactive interactions	Dr. Ram Kinkar Roy	DST	31.55
12	Synthesis of D-glucose derived glycoconjugates and their application in molecular recognition and catalysis	Dr. Ajay Kumar Sah	DST	30.1
13	Modeling of Employee performance and human capital Assessment and optimization of productivity of Indian Manufacturing Industry	Dr. Udayan Chanda	ICSSR	5
14	Development and validation of Service Quality Index in Indian Telecom & Banking sector	Dr. Arun Kumar	ICSSR	4
15	Financial Inclusion	Dr. Arun Kumar Vaish	HCL	180
16	Cyclic RGD modified lipopolymeric micelles for targeted delivery of tamoxifen in ER+ Breast cancer	Dr. Anupama Mittal	DST Rajasthan	12.54
17	Nanotechnology based pharmaceutical, nutraceuticals and cosmetics-development of platform technology	Dr. Deepak Chitkara	Incisive Elements	21.38
18	Peptide-decorated pH-sensitive nano-conjugate hybrid micelles for co-delivery of temozolamide and an autophagy inducer, rapamycin, for treatment of glioblastoma multiforme	Dr. Deepak Chitkara-PI Dr. Gaikwad Anil Bhanudas -CO-PI	DBT	41.94



S.No	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
19	Development of nutraceutical nanoemulsion based health drink of food bioactives	Dr Anil Jindal	Ananta Medicare Limited	5.10
20		Dr. Rajeev Taliyan and Dr. Sunil Dubey	Etical Clinpharm Pvt Ltd	8.00
21	Exploring the synergism of PPAR-Y agonist and HDAC inhibitor for reversal of Alzheimers type of dementia and developing their brain targeted nano-carrier system for effective treatment	Dr. Rajeev Taliyan	DST-Nanomission	32.14
22	Development of a standardized formulation of Trigonella foenum-graecum seeds for preventing of delaying the development of Type-2 diabetes in subjects with Pre-diabetes	Dr. Sunil K Dubey	ICMR	16.73
23	Evaluation of Antitumor efficacy and pharmacokinetics of polymeric nanoparticle formulation targeted to cancer stem cells	Dr. Aniruddha Roy	DST	32.20
24	Conjunctive use of Rainwater and Ground water to provide safe drinking water with intervention of advanced technology	Dr. Rajiv Gupta	DST	126.43
25	Costs and remediatin of Groundwater contamination in India	Dr. Rajiv Gupta	University of Virginia	100.00
26	Joint Indo-German Experience Lab	Dr. K S Sangwan	DAAD	341.00
27	Design of Health care supply chain for enhancing availability and reducing wastage of generic medicines for rural areas in Rajasthan	Dr. Srikanta Routroy	DST Rajasthan	5.88
28	Modeling Immune Response to Salmonella during Typhoid	Dr. Amol Marathe	DST	34.06
29	Mathematical modeling and analysis of the dynamics of diabetes mellitus in indian population and control measures	Dr. Padma Murali	CSIR	8.78
30	Mathematics aided Architectural Design layouts	Dr. Krishnendra Shekhawat	DST	15.45
31	Study of Observational Constraints on dark energy models of universe using COSMOMC in HPC systems	Dr. Suresh Kumar	DST-EMR	26.29
32	Soft Computing framework based Integrated Multi Sensor Array for Water Quality Assessment: Targeting fluoride as major parameter	Dr. K.K.Gupta Dr. R.K.Gupta	DST	38.7
33	Study on Electronic Transport Behaviour of Carbon nanotube based field effect transistors (CNTFETs)	Dr. Navneet Gupta-PI Dr. Niladri Sarkar -CO-PI	DRDO	20.49
34	Development of Tio2 nanotube based highly selective capacitive type sensor device for the detection of methanol poisoning in alcoholic beverage	Dr. Arnab Hazra	DST	27.76
35	Removal of Heavy metals from industrial wastewater using metallic nanoparticales as absorbents	Dr. Banasri Roy	DST	19.00
36	Mutant-p53 gain-of-function: its role in regulating long non-coding RNA (lncRNA) Expression and associated chemo-resistance in human cancer cells	Dr. Rajdeep Chowdhury	DBT	25.00
37	Investigating the Role of Aryl Hydrocarbon Receptors in medicating the Anti-Cancer Properties associated to camel milk	Dr Uma Dubey	DST-Rajasthan	7.43
38	Development of bioinoculant based formulation for enhanced phytoremediation of poly chorinated biphenyl (PCB) contaminated soil	Dr. Monika Sandhu	DST-WoS	20.80
39	Production and use of indigenous local strains of microbial pesticides through trainings, demonstrations and installation of cost effective production units for the farmers of Rajasthan	Dr. Jola Dubey	DST-WoS	26.33
40	Removal of toxic metal ions from industrial discharges using microalgae	Dr. Prakash	DST-WoS	38.9

S.No	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
41	Development of Surface Plasmon Resonance Instrument with a novel optical design	Dr. R.K.Gupta-PI Dr. Manjula Devi- Co-PI	DST	56.15
42	EXAFS Investigations on ion conducting polymer nanocomposites for conductivity structure correlation	Dr. Anshuman Dalvi	UGC-DAE	3.98
43	Investigations on Li <sup>+</sup> ion conducting glass-ceramic containing NASICON structured nano crystallites	Dr. Anshuman Dalvi	DST	37.65
44	Studies on Quarkonium suppression in Asymmetric Nuclear Collision at LHC	Dr. Madhukar Mishra	DST	15.85
45	"Investigating Dynamical and Topological Properties of Fioquet Systems: A Comparative study of perturbative Schemes	Dr. Jayendra Bandyopadhyay Dr. Tapomoy Guha Sarkar	DST	16.22
46	"Generation and Characterization of Attosecond Pulses with Specific Polarization and its Applications"	Dr. Amol Holkundkar Dr. Jayendra Bandyopadhyay	DST	16.54
47	Electro-optical response of Nematic Liquid Crystals doped with nanorods	Dr. Manjula Devi	DST	39.20
48	Participatory Exclusion of women and the poor in community Forestry: A Comparative Study of Implementation of the ROFR Act across 3 states of India	Dr. Sailaja Nandigama Dr. Sanjeev Kr. Choudhary, Dr. Kumar Sankar Bhattacharya	ICSSR	7.00
49	FIST Mechanical Engg Department	Department	DST	81.5
50	FIST Mathematics Department	Department	DST	50.0
51	FIST EEE Department	Department	DST	72.5
52	FIST Biological Sciences Department	Department	DST	27.5
53	FIST Chemistry Department	Department	DST	82.5
54	An investigation of energy consumption of machine tools	Dr. Girish Kant	BITS-ACRG	9.65
55	Design of Non asynchronous SRAM cell for hybrid cache architecture using CMOS-FDSOR/FinFET technology	Dr. Nitin Chaturvedi	BITS-ACRG	5.25
56	Investigation of ductile characteristics of high strength concrete beams reinforced with high strength steel and basalt fibre under elevated temperature conditions	Dr. G Muthukumar	BITS-ACRG	9.75
57	Particle Image Velocimetry studies on a bench scale cold flow fluidized catalytic cracking (FCC) riser unit	Dr. Priya C Sande	BITS-ACRG	10
58	Dual Catalytic monolith reactor for biogas reforming	Dr. Srinivas Appari	BITS-ACRG	8.25
59	Interseismic coupling and asperity distribution in North West Himalaya	Dr. Sumanta Pasari	BITS-ACRG	8.95
60	Theoretical Study of Electron impact double ionization of atoms and molecules	Dr. Rakesh Choubisa	DST	20.44

Sanctioned projects:

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
1	Quality by design (QbD) based suspension product development and process optimization	Dr. Sunil Kumar Dubey and Dr. Gautam Singhvi	SLYBACK Pharma	12.50
2	Activity targeted nano-formulations for co-delivery of a taxane and antioxidant molecule, alpha acid, for treating breast cancer	Dr. Deepak Chitkara	DST-Rajasthan	11.14
3	Development of e-waste management strategies for selected e-products in Rajasthan	Dr. M S Dasgupta -PI Dr. Srikanta Routroy Co-PI	DST-Rajasthan	7.54
4	A Benchmarking analysis public transport sector of Rajasthan	Dr. Shivi Agarwal - PI Dr. Trilok Mathur- Co-PI	DST-Rajasthan	5.29
5	cRGD decorated lipo-polymeric nanoplexes of CRISPR/Cas9 ribonucleoprotein (RNP) for the	Dr. Deepak Chitkara	DBT	50.04

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
	management of retinal dystrophic conditions.			
6	Develop of novel anti-leishmanial analogues loaded with novel nano-formulations	Dr. S Murugesan -PI Dr. KVG Chandrashekhar - CO-PI	DBT-Indo Spain	60.00
7	Development and evaluation of lipid based nanoparticles of Quinapyramine and Isometamidium salt for treatment of trypanosomiasis in camels	Dr. Anil Jindal - PI Dr. Paul Atish Tulshiram - CO-PI	DBT	29.04
8	Widening & Strengthening of existing Bikaner-Phalodi section to Four Lane from Km4+200 to Km 55+250 and two lane with PS from Km 55+250 to Km 163 +500 of NH-15 on BOT basis in the state of Rajasthan	Dr. A K Sarkar	NHAI	53.50
9	Gel-based composite formulatio containing asiaticoside and neurotensin for rapid healin of diabetic wounds	Dr. Anupama Mittal	ICMR	23.80
10	Re-value: Innovative technologies for improving resource utilization in the Indo-European fish value chains	Dr. Souvik Bhattacharya - PI Dr. Srikanta Routroy- Co-PI Dr. M. S. Dasgupta - Co-PI	DBT	62.00
11	Umbilical cord mesenchymal stem cells derived exosomes as biogenic nanocarriers of miRNA and chemotherapeutic drug for reversal of chemoresistance in breast cancer	Dr. Anupama Mittal	DST-Nanomission	40.57
12	Preliminary investigation, characterization and stability analysis of micelles formulation	Dr. Sunil Kumar Dubey and Dr. Gautam Singhvi	Enaltec Labs Pvt. Ltd	1.46
13	Design and Characterization of Nanoparticle based drug delivery systems of Anticancer drug	Dr. Murali Monohar Pandey	Crenza Pharmaceutical Pvt Ltd Hyderabad	8.00
14	Epistemology Revisited: Postmodern Discourse alternative forms of cognition and interdisciplinary of knowledge	Dr. Anupam Yadav	ICPR	2.00
15	Insight into dissolution mechanism of amorphous solid dispersions of macitentan	Dr. Murali Monohar Pandey	DBT	8.00
16	Novel ophthalmic formulation	Dr. R N Saha and Dr. Gautam Singhvi	SLYBack Pharma Hyderabad	14.00
17	Synthesis of metal complexes using D-glucose derived ligands and application of produced molecules in catalysis	Dr. Ajay Kumar Sah	CSIR	11.32
18	Experimental investigations on catalytic treatment of producer gas	Dr. Pratik N Sheth	Ankur Scientific Energy Technologies Pvt. Ltd	6.72
19	Photo degradation of toxic organic dyes using dye-sensitized semiconductor photocatalyst	Dr. Shamik Chakraborty	CSIR	8.07
20	GCRF-HEFCW-Small Projects	Dr. A K Sarkar, Dr. Prasanta Sahu , Dr. Bandhan Majumder	CARDIFF University, UK	11.10
21	Integrated approach for the efficient removal and recovery of Zinc from the viscose fiber process	Dr. S K Verma - PI Dr. A P Singh - Co-PI Dr. Jitendra Panwar - Co-	BITS Pilani-ABSTCPL Joint project	49.42

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
		PI , Dr. Suresh Gupta- Co-PI		
22	Role of Endocrine Disrupting chemicals (ECDs) in Maternal and Child Health	Dr. Sunil Kumar Dubey	ICMR-Ad-Hoc Scheme	9.00
23	Understanding hyperglycemia induced alterations in non-coding RNA expression pattern and post-translation histone protein modifications contributing to drug resistance and progression of pancreatic cancer	Dr. Rajdeep Chowdhury - PI Dr. Gaikwad Anil Bhanudas - Co-PI	DST-SERB	40.32
24	Influence of English Teacher's Efficacy, competence and Motivation on their Instructional Strategy: A Study of Secondary Schools Teachers in Jhunjhunu, Rajasthan	Dr. Devika- PI Mrs. Rajni Singh - Co-PI	NCERT	6.80
25	Development and preclinical evaluation of nanostructured lipid particles of bleomycin sulphate for targeting Brain cancer	Dr. Sunil Kumar Dubey and Dr. Gautam Singhvi	Oniosome Healthcare Private Ltd.	12.75
26	Efficacy & Effectiveness of Information, Education and Communication (IEC) Activities for Health Awareness and Promotion among Women in Rajasthan: Towards a HOPE Approach	Dr. Gajendra Chauhan - PI Dr. Rajneesh Choubisa - Co-PI , Dr. Tanu Shukla- Co- PI Dr. Sailaja Nandigama - Co-PI, Dr. R.P. Pareek- Co-PI	ICMR-ICSSR	25.11
27	Development & Validation of a Prototype of a Web/Mobile App Based Positive Psychological Intervention for Adolescents	Dr. Rajneesh Choubisa -PI Dr. Gajendra Singh Chouhan- Co-PI Dr. Tanu Shukla- Co-PI	ICMR-ICSSR	17.00
28	Information gathering from encrypted mobile phone applications	Dr. Ashutosh Bhatia- PI Dr. Kamlesh Tiwari- Co-PI	CAIR-DRDO	9.29
29	Development of Fault diagnosis scheme for Aero-bearing with multiple localized defects using non-linear mathematical modeling and experimental analysis	Dr. Arun Kumar Jalan-PI Dr. Sachin Belgamwar-Co-PI	DRDO	9.98
30	Development of a Dielectric Resonator based displacement sensor	Dr. Praveen Kumar AV	SERB	20.75
31	Substrate supported transition metal doped alkaline earth clusters as hydrogen storage materials and their applications in hydrogen fuel cell	Dr. Debashish Bandyopadhyay	DST-SERB	20.57
32	Heteroaromatic-Annulated Porphyrins: Design, Synthesis and Study of optoelectronic properties towards the development of photosensitizers	Dr. Dalip Kumar	SERB	24.82
33	Analysis of mitochondrial dynamicity post drug exposure in human glioblastoma cells and understanding its correlation with drug resistance	Dr. Sudeshna Mukherjee	SERB	27.89
34	Enhancement of oral bioavailability of selected drugs	Dr. Aniruddha Roy & Dr. Gautam Singhvi	INTAS Pharmaceuticals LTd., Ahmedabad	45.00
35	Statistical Mechanics of biopolymers in confined geometry	Dr. Navin Singh	DST-SERB	28.42
36	Waste Management of Generated Sludge from Indian Steel and Steel related plants: A sustainable Business Model	Dr. Srikanta Routroy-PI Dr. Anupam Singhal-Co-PI Dr. Dipendu Bhunia-Co-PI	Ministry of Steel	23.72

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
37	To investigate the mechanism of CRISPR-Cas regulated biofilm formation in salmonella enterica serovar Typhimurium	Dr. Sandhya Amol Marathe	SERB	43.71
38	Pharmacokinetic and toxicity study of designed formulation	Dr. Gautam Singhvi and Dr. Sunil kumar Dubey	Crenza Pharmaceutical Ltd	3.50
39	Design exploration and performance analysis of RF-MEMS SPST and SPDT switches	Dr. Mahesh Angira	BITS-ACRG	8.70
40	Investigate role of CRISPR-cas system in pathogenesis of salmonella enterica serovar typhimurium	Dr. Sandhya Marathe	BITS-ACRG	7.50
41	Understanding the role of long non coding RNA in glomerular endothelial cell dysfunction during diabetic nephropathy	Dr. Syamantak Majumder	BITS-ACRG	8.50
42	Exploiting background information for efficient coordination of multi-robot systems dispatched for service delivery in an indoor environment	Dr. Avinash Gautam	BITS-ACRG	8.00
43	Experimental studies on mechanics of micromechanical structures and cells	Dr. Venkatesh Kadbur Prabhakar Rao	BITS-ACRG	8.20
44	Ultrasonic assisted grinding of difficult to cut material with cryo-minimum quantity lubrication	Dr. Varun Sharma	BITS-ACRG	9.40

Projects completed

S.No.	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
1	Design and Synthesis of Heavy metal based aggregation induced emission active complexes and their application in Bio-imaging	Dr. Inamur Rehman Iashkar	DST	34.9
2	Developing and Validating Relationship Management Index for Indian Airline Industry	Dr. Jyoti -PI Dr. Arun Kumar-Co-PI	ICSSR	1.5
3	Role of histone ubiquitination & angiotensin converting enzyme-2 in the development renal fibrosis under type 1 diabetic condition	Dr Anil Bhanudas	CSIR	19.36
4	Nano-formulation of Lysofylline-fatty acid conjugate for effective treatment of diabetes	Dr. Anupama Mittal	DST	26.9
5	Combination delivery of small molecules and microRNA for treatment of locally advanced and metastatic breast cancer	Dr. Deepak Chitkara	DST	27.2
6	Exploring the Antiobesity potential of selected ayurvedic medicinal plants using pancreatic lipase inhibition assay and synergy guided fractionation	Dr. Paul Atish	DST	27.3
7	Development of Novel Processes for Increasing the Content of Sennoside-B from Senna	Dr. Sunil K Dubey	Shashi Phytochemicals	18.00
8		Dr. Sunil K Dubey	Axis Clinpharma	2.07

S.No.	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
9	Effect of partial replacement of cement with marble slurry on concrete	Dr Anshuman	DST	28.38
10	Dynamic buckling analysis of composite structures	Dr S N Patel	CSIR	9.33
11	Padagogy Project	Dr. A. K. Sarkar	IIT Kanpur	49.00
12	Flow through a membrane modeled of Porous cylindrical particles using particle-in-cell approach	Dr Ashish Tiwari	DST (Indo-Russia)	12.86
13	Introducing Cyno Bacterial bicarbonate transporters in C3 plants in enhanced photosynthetic performance	Dr. Sandhya Mehrotra	DST	37.72
14	An Economic Appraisal of Renewables Versus Non-Renewables: A Case of Rajasthan	Dr. Krishna M	ICSSR	2.00
15	Development of p-Tio2 nanoparticle decorated n-Tioc nanotube array based p-n homojunction sensor device for the efficient detection of methanol contamination in alcoholic beverages.	Dr. Arnab hazre	BITS-ACRG	9.00
16	design and synthesis of a noval biomass stove for cooking applications	Dr. Pratik N Seth	BITS-ACRG	9.00
17	development of low carbon ternary cement for durable and sustainable concrete	Dr. Baharudeen A	BITS-ACRG	9.25
18	multimodal biometric based person identification system	Dr. Pawan Ajmera	BITS-ACRG	9.00
19	Wireless network virtualization: IEEE 802.11 test-bed implementation and wireless NIC virtualization	Dr. Vishal Gupta	BITS-ACRG	8.5
20	Design and synthesis of multi-functional smart low molecular weight gelator	Dr. Rajeev Sakhuja	BITS-ACRG	4.5
21	sustainable catalytic route to C4-C6 carboxylic acids/hydroxyacids by carbonylation of polyols	Dr. Bhibas Sarkar	BITS-ACRG	5.5

KK Birla Goa Campus:

Ongoing Sponsored Research Projects

S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
Government Funded Projects							
1	Novel sustained release biodegradable polymer coated urea and zinc nanofertilizers for synchronizing fertilizer uptake, improving productivity and prevention of bacterial wilt disease in chilli ( <i>Capsicum annum L</i> )	Dr. Gauri Anil Achari	Biological Sciences	Mentor: Dr. Meenal Kowshik	SERB	1920000 (2220000 as per breakup)	2/8/2017 2 years
2	Sanitation, water and solid waste for development	Dr. M. Srikanth	Biological Sciences		Agreement between EAWAG, Switzerlan and BITS, Goa	726000 (As per Dr Sunil Bhand) First installment CHF 9000 Second	17 months 30-11-2018 upto 31/1/2019

S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
						installment CHF 2000	
3	Demonstration of river Sal cleaning by vertical wetland and river bank filtration	Dr. M. Srikanth	Biological Sciences	Dr. Fraddy D'souza Fellow and Area Convener, The Coastal Ecology & Marine Resources Centre, The Energy and Resources Institute, Panaji  Dr. Kavita Vithal Patil, Research Associate, The Coastal Ecology & Marine Resources Centre, The Energy and Resources Institute, Panaji	DBT (river cleaning)	5015000  (BITS share out of total 6885000)	26-5-2017  2 years  (Date of completion June 2019)
4	Small Scale and sustainable household wastewater recycling	Dr. M. Srikanth  Project partner with Indian Inst. of Science	Biological Sciences	Dr. Hoysall N Chanakya Chief research scientist And associate faculty Centre for Contemporary Studies (CCS) and Centre for Infrastructure, Sustainable Transport and Urban Planning (CISTUP)  Prof. Ghangrekar, IIT, Kharagpur  Arun Kumar, NITK, Surathkal	DST/MHRD under IMPRINT scheme	3192000	3-5-2017  (Disbursement letter from H N Chanakya ) 3 years
5	Exploration of Antifungal lead molecules from the wild type Bacillus subtilis RLID 12.1 purification and molecular characterization along with optimizing production	Dr. Utpal Roy	Biological Sciences	Prof. Arunalokechakra barti	DBT	3804600  (BITS share out of 4869600)	3/2/2017 3 years

S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
6	Study on the role of Tonoplast Intrinsic Protein Family members in arsenite accumulation and their transport in rice	Dr. Kundan Kumar	Biological Sciences	Dr. Sudhakar Srivastava, Banaras Hindu University	BRNS	2939900	27-2-2017 3 years
7	Developing Bioactive Compound -Enriched Functional Food Ingredients from Dillenia indica and valorization of its pomace	Dr. M. Srikanth (PI from collaborating institute)	Biological Sciences	Dr. Anasuya Ganguly (Co investigator from collaborating institute) Investigators from Parent institute Dr. Manashi Das Purkayastha (PI) Dr. Abhijit Borah (CoI) (Assam Agricultural University)	DBT, Twinning Projects for the NE-2015	1686000 (BITS share out of total cost 4215000)	14-3-2017 3 years
8	Home automation and smart wheel chair based on electroencephalography (EEG) signals produced in the brain	Dr. Veeky Baths	Biological Sciences	Dr. Bharat Deshpande	CSRI (DST)	3895600	28-7-2015 3 years Ext. upto 19/02/2019
9	Studies of the effects of quinacrine (QC) on regulation of Rho like small-GTPase and apoptosis in human lung and breast cancer cell lines cultured <i>in vitro</i>	Dr. Angshuman Sarkar	Biological Sciences	Dr. Indrani Talukdar	DBT	2355000	29-7-2015 3 years extension till 31-5-2019
10	Lanthanide doped hydroxyapatite based nano-materials for theranostics applications: Sensing, Imaging, and Therapeutics  (Sanction letter shows a different title)	Dr. Meenal Kowshik	Biological Sciences	Dr. Sutapa Roy Ramanan Dr. Geeta Varier	DST	3964771	24-11-2015 3 years Ext. upto 6 month
11	Screening, isolation and identification of novel antimicrobial compounds from potential mangroves of Goa	Dr. Kundan Kumar	Biological Sciences	Dr. Utpal Roy	CSIR	2226000 (old calculated amount was 2757950. Remove it)	17-5-2016 3 years
12	Studies on the gene regulation involved in the lytic-lysogenic switch in staphylococcus aureus temperate bacteriophage phi11	Dr. Malabika Biswas	Biological Sciences		SERB	2046453	8/8/2016 3 years
13	Demonstration of waste to energy project by anaerobic co digestion of food waste and septage	Dr M. Srikanth	Biological Sciences	CoPI Mr Sandip K Prabhu Chodnekar Manager Engg(II) GSIDC Goa University GOA STATE INFRASTRUCTURE DEVELOPMENT	DBT	16160000	28-11-2017 (date mentioned in the letter from DBT dated 29-12-2017)  2 years



S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
				CORPORATION LIMITED, 1st floor, SPACES Building, Patto, Panaji-Goa			
14	Studies on the effect of Russells Viper Venom on regulation of cell morphology, apoptosis and further characterization of the active compound(s).	Dr. Dibakar Chakrabarty	Biological Sciences	Dr. Anshuman Sarkar	ICMR	2477000	23/03/2018 3 years
15	Introducing cyanobacterial bicarbonate transporters into C3 Plants for enhanced photosynthetic performance.	Dr. Sandhya Mehrotra	Biological Sciences	Dr. Rajesh Mehrotra	SERB	3772560	20/08/2018 3 years
16	Academia Engagement on Decentralized Sanitation under Sanitation Capacity buiding Platform at NIUA, New Delhi	Dr. M. srikanth	Biological Sciences		Ministry of Housing & Urban Affairs New Delhi	1280000	25/9/2018
17	Bacterial Diversity and Biofilm adhesion inhibition studies	Dr. M. srikanth	Biological Sciences		IFB ( Phase I)	259000	4/6/20108
18	Vitamin D increase in Mushrooms by exposing by UV light	Dr. M. srikanth	Biological Sciences		Tropical Mushrooms & Zuari foods. ( Kurade)	306000	24/07/2018
19	Bioremediation of Red Mud using acidogenic fermentation byproducts and by Biopilling	Dr. M. srikanth	Biological Sciences	Dr. Neeru Sood ( Dubai Campus)	ABSTCPL	3575000	18/6/2018
20	Literacy and Cognition project (MPI)	Dr. Veeky Baths	Biological Sciences	C0-PI Dr. Falk Huettig	Max planck Institute	444000	Nov-18
21	Response of Copepods to crude oil polution and warming	Dr. Lalit V. Baragi	Biological Sciences	Dr. M. Srikanth ( Mentor)	SERB	192000	2/4/2018
22	Unmixed reforming (UMR) of Methane for Hydrogen Production	Dr. Srinivas Krishnaswamy	Chemical Engineering	Prof. Aniruddha B. Pandit, Institute of Chemical Technology, Mumbai	SERB ( BPCL)	5611100	19-12-2016 3 years
23	Visco-elastic, visco-plastic and thixotropic behavior of biogreases and its influence on lubrication ( tribiological) performance	Dr. Asima Shaukat	Chemical Engineering		DST SERB	5467300	20-9-2016 3 years
24	Rheological Dynamic of poymer layered silicate/graphene nano-composites	Dr. Asima Shaukat	Chemical Engineering		DST- Inspire	3500000	10/11/2014 5 years
25	Synthesis of hydroxyapatite based biocompatible functional magnetic nanoparticles and Investigation of its interaction with biomolecules	Dr. Sutapa Roy Ramanan	Chemical Engineering	Dr. Meenal Kowshik	UGC-DAE Consortium for scientific research, BARC	270484 Sanctioned amount is Rs. 45000/- (till 31-12-2016) sanction letter showing another Rs.	13-1-2016 3 years

S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
						45000/- for the period 1-1-2018 to 31-1-2018 (dated 7-12-17) is also received	
26	Chlorine Resistant Nano Enhanced Polymer Blend Membranes	Dr. Jegatha Nambi Krishnan	Chemical Engineering		SERB-Start-up Research Grant	3174281	1/8/2016 3 years
27	Development of anodic material for DSSC (transferred project)	Dr. Sharad Sontakke	Chemical Engineering		DST Inspire	700000	1/8/2013 5 years
28	Catalytic HI decomposition studies in membrane reactor for hydrogen production (transferred project)	Dr. Sharad Sontakke	Chemical Engineering		BRNS	1933000	31-3-2016 3 years
29	Development of suitable material for visible light induced photocatalytic hydrogen production from industrial wastewater	Dr. S. S. Baral	Chemical Engineering		SERB	3583000 (BITS share out of the total amount of Rs. 5332000/-)	13-10-2017 3 years
30	Synthesis of mononuclear as well as homo and hetero dinuclear complexes of Cu(II) and Zn(II) with hard-soft donor ligands and evaluation of their anticancer activities	Dr. Manjuri Kumar	Chemical Engineering	Dr. Sumit Biswas	SERB	2305578	24/10/2018 3 years
31	Formulation of bio-functionalized cosmetic emulsions using biosurfactant and essential oil as green ingredients	Dr. Vivek R.	Chemical Engineering		DST-SERB Early Career Research Scheme	3027000	28/4/2018 3 years
32	Mechanistic approach to design composite metal-carbon nanofiber oxygen electrodes for high-performance metal-air batteries	Dr. Richa singhbal	Chemical Engineering		DST-SERB Early Career Research Scheme	4559000	30/08/2018 3 years
33	Study of Dispersion of Particles Generated from Handling of Cargo at Mooring Dolphins for Mormugao Port Trust	Dr. S. D. Manjare	Chemical Engineering		Mormugao Port Trust (MPT)	1675000	8/10/2018
34	Life cycle Assessment (LCA)	Dr. S. D. Manjare	Chemical Engineering		Maharashtra Aldehydes & Chemicals Ltd	690300	12/11/2018
35	Nonadiabatic molecular processes on threefold electronic degeneracies	Dr. Tanmoy Mondal	Chemistry		DST-Inspire	3500000	1/8/2013 5 years
36	Computational Study of the Catalytic Mechanism Some Diaryl diselenide-based Glutathione peroxidase Mimetics	Dr. Raghu Nath Behera	Chemistry		SERB	1642280	4/1/2017 3 years
37	Design and synthesis of graphene oxide based AIE-sensor for selective	Dr. Amrita Chatterjee	Chemistry	Dr. N. N. Ghosh	UGC- DAE Consortium for	703000 (as per PI)	1/2/2017 3 years

S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
	detection of Hg(II) and Organic mercury in aqueous medium				Scientific Research Proposal	[213000+HRA] + [213000+HRA] For 2 years	
38	Development of sensing systems for residual pesticide and harmful chemical detection in fruits and vegetables	Dr. Sunil Bhand	Chemistry		R D Tata trust (to CDAC, Kolkata)	5320000 (BITS share) (Total project cost is Rs. 212 lakhs)	2/8/2016 2 years
39	Steric and conformational influences on the performance of nonplanar and highly functionalized phenyl- and heteroaryl-porphyrins in the sensing of anions and heavy metal ions	Dr. P. Bhavana	Chemistry		SERB	2822820	8/11/2016 3 years
40	A Comprehensive study on mechanochemical sp <sup>2</sup> C-H bond activation in five-membered heteroaromatics in a Ball-Mill: Can 1st row transition elements be a potential replacement of late transitional elements a question to investigate	Dr. Mainak Banerjee	Chemistry		SERB	3057560	13-12-2016 3 years
41	Nano-based detection of organophosphate pesticides using metal organic framework conjugates	Lalit M Bharadwaj, Amity University CCPIs Dr. Sunil Bhand	Chemistry	Dr. Irani Mukherjee, IARI, New Delhi	NASF, ICAR	4308110 BITS, Goa share  Total cost of project Rs. 17740210 (refer revised sanction letter dated 24-8-2017 – double accounting)	30-12-2016  3 years (till December 2019)
42	Development of a field portable devise for the analysis of environmental contaminants in water	Dr. Sunil Bhand	Chemistry	Dr. A. P. Koley Mr. Gautam Bacher PCs: Dr. V K Suri Dr. R. Balasubramaniam Shivam Mishra Ashwin Rathod (ALL from Precision Engineering division, BARC, Mumbai)	BRNS	2413800	23-1-2015 3 years
43	Experimental and Computational study of Boron Doped TiO <sub>2</sub> and ZnO Nanocrystals	Dr. Jayadevan K. P.	Chemistry	Dr. R. N. Behera	SERB	2332515	15-3-2017 3 years
44	Development of PCDA-liposome based detection kit for Alzheimer's disease biomarker	Dr. Amrita Chatterjee	Chemistry	Dr. Malabika Biswas Dr. Ramesha C. K.	SERB	2663200	14-3-2017 3 years
45	Development of Potocatalyst embedded Graphene based membranes for Treatment	Dr. N. N. Ghosh	Chemistry	Dr. Rajib Ghosh (Dubai Campus)	18/6/2018	2610000	ABSTCPL

S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
	of Dye containing waste water under Sunlight.						
46	Cyclic Peptide-based nanotubes for Efficient proton conducting material	Dr. Subhasish Roy	Chemistry		15/5/2018 (8/10/2018 joined BITS GOA)	3460000	DST- Inspire
47	Development of mesoporous silica (for alumina)-SiC- metal nanoparticles based nanocomposites for rader absorption application at high temperature	Dr. N. N. Ghosh	Chemistry	Dr. Amrita chatterjee	DRDO	1513000	29/11/2018 3 years
48	A cost-effective approach of making software dependable	Dr. Santanu Sarkar			Accenture	1500000	5/8/2015 2 Years
49	Knowledge- Rich Deep Models for Optimisation	Dr Ashwin Srinivasan	CS &IS		SERB	2250290	16-7-2017 3 years
50	Secure vehicular communication and routing in future intelligent transportation systems (ITS)	Dr. Debasis Das	CS &IS		SERB Early career research award	1981100	25-10-2016 3 years
51	Development of Remotely configurable Arbitrary Ramp Generator for Frequency modulated continuous Wave Reflectometry	Dr. Neena Goveas	CS &IS	Dr. A. Amalin Prince	DAE-BRNS	2802500	23-1-2017 2 years
52	Development of SDR based GNSS receiver	Dr. Nitin Sharma	EEE		ISRO	3300000	23-12-2016 2 years
53	Agenda 2020: India's Maritime Infrastructure, Governance & Naval Diplomacy	Dr. R. P. Pradhan	Humanities & Social Sciences	Prof. Geetha Reddy Anant. Osmania University, Hyderabad  Prof. W. Lawrence S. Prabhakar, Madras Christian College, Chennai  Mr. Dilip Mehrotra, Secretary, IOMOU, Goa	ICSSR	1500000	30-11-2015 2 years upto 31/10/2018 Extension upto 31/12/2018
54	Predictive Mathematical Modeling and Analysis for Effective Diagnosis and Control of Diabetes mellitus with associated Co-infections Diseases among Indian	Dr. P. Dhanumjaya	Mathematics	Prof. V. Sree Hari Rao,  International Centre for Interdisciplinary Resaerch & Innovation, Hyderabad	SERB	1568490	15-3-2017 3 years
55	A Study on the inequalities involving complex polynomials	Dr. Prasanna Kumar N.	Mathematics		National Board for Higher Mathematics, DAE	1304100	31-3-2017 3 years
56	Theoretical and numerical study of elliptic and parabolic partial differential equations with interfaces	Dr. P. Dhanumjaya	Mathematics		National Board for Higher Mathematics, DAE	1348100	31-3-2017 3 years

S.N	Title of the project	Name of Principal Investigator	Dept.	Name of the coinvestigator(s)	Funding Agency	Sanctioned amount of the project (Rs)	Sanction date & Duration
57	A Study on the Bernstein-type inequalities for the polar Derivative of a Complex Polynomial	Dr. Prasanna Kumar	Mathematics		CSIR	1646000	26-4-2017 3 years
58	Study on dark energy, dark matter and cosmic acceleration of the Universe in modified gravity	Dr. Gauranga Charan Samanta	Mathematics	Dr. Prasanta Kumar Das	CSIR	1696000	26-4-2017 3 years
59	A study of homotopy invariants of a model category	Dr. Shilpa Gondhali	Mathematics		SERB (MATRICS) SCHEME	600000	4/1/2018 3 years
60	Study and analysis of fluid dynamics and heat transfer characteristics in circulating fluidized bed heat exchanger with novel designs of distributor plates	Dr. Ranjit S Patil	Mechanical Engineering		SERB	2766000	20-7-2015 3 years Ext. upto 12/02/2019
61	An Acoustic Study characterization and standardization of the Sarasvati Veena	Dr. Pravin M Singru	Mechanical Engineering	Dr. Radhika Vathsan	SERB	3695560	15-3-2017 3 years
62	HoD Mechanical (Ranjit Patil)	HoD Mechanical (Ranjit Patil)	Mechanical Engineering		BMW	2500000	18/09/2018
63	Ecofriendly flexible CZTS solar cells	Dr. Teny Theresa John	Physics	Co-PI Dr. M. K. Jayaraj, CUSAT, Kochi	SERB	2925560	4/8/2017 3 years
64	Observational signals of quantum gravity in CMB	Dr. Kinjal Banerjee	Physics		Start up research grant, SERB	318528	18-1-2016 3 years
65	Studies on biomolecular transport through nuclear pore complexes using a dual fluorescence channel confocal microscope	Dr. P. Nandakumar	Physics	Dr. Meenal Kowshik	SERB	4404104	2/3/2017 3 years
66	Signature of Space-time noncommutativity in high energy colliders	Dr. Prasanta Kumar Das	Physics		SERB	1885515	9/3/2017 3 years
67	Room temperature Hydrogen Storage and sensing using Reduced Graphene Oxide-MoS2 Nanocomposites	Dr. E. S. Kannan	Physics		SERB	3061520	9/3/2017 3 years
68	Spin seebeck Effect in novel heterostructures	Dr. Ram Shanker Patel	Physics	Dr. Kartik Senapati Dr. Pratap Kumar Sahoo NISER Bhubaneswar	SERB	5083821	14-3-2017 3 years

#### Industry Ongoing Projects

S.No	Title of the project	Principal Investigator	Dept.	Name of Co-PI	Funding agency	Sanctioned amount	Durations
1	Process Improvements in Urrakh and Feni Production in Goa" (Pilot Scale Process and thermal	Dr. S. D. Manjare	Chemical Eng.	Prof. Pramod V. Pathak (Co-PI), Chairman , Environmental Impact Assessment Agency, Goa	Goa Energy Development Agency (GEDA) (DSTE, Goa mentioned in the sanction letter)	10.00	13-10-2017 3 years

	Efficiency improvement measures)						
2	Study of lubricant and application method for enhanced surface finish and reduced draw load on cold drawn steel tubes	Dr Varinder Singh -PI	Mechanical Eng.	Prof Amit Kumar Gupta Co-PI Prof Srinivas P Regalla -Co-PI Dr. Tufan Chandra Bera	Tube Investments of India Ltd, Chennai (Inhouse industrial research project )	27.43	Approved (8-8-2017) or sanctioned  Invoice date 21-7-2017 Invoice amount 991200 (first year installment) 3 years

Development Grant ongoing

S.No	Title of the project	Name of PI/Co -PI	Funding Agency	Sanctioned amount
1.	Bioincubator in Health and environmental engineering	Development Grant	BIRAC-Bio-NEST	296.64 lakhs from BIRAC

Grants under DST - FIST

S.NO	Department	Period	Amt. Sanctioned( 50:50 Basis)	Amount Released (in Lakhs)
1	Biological Sciences	5	160.00	80.00
2	Physics	5	290.00	145.00

Projects Sanctioned

S.No	Project Title	Principal	/ Co-Principal Investigator	Sponsored Organization	Amount Sanctioned/ Approved) (Rs. In Lacs)
<b>Biological Sciences</b>					
1.	Exploring the effects of polyamine and associated metabolic regulation of hypothalamic GnRH-GnIH synthesis and release during ageing in BALB/cJ mice	Dr. Arnab Banerjee	Dr. Rajiv Taliyan, Pilani Campus	Science and Engineering Research Board	38
2.	Evaluation of Antifungal activity of lipopeptides from a wild type Bacillus sp. RLID 12.1 in mouse models of invasive candidiasis, cryptococcosis, and Aspergillosis	Dr. Utpal Roy	Prof. Arunalokechakrabarti (PGIMER), Chandigarh	SERB	72.51
3.	Bioremediation of Red Mud using acidogenic fermentation byproducts and by Biopilling	Dr. M. srikanth	Dr. Neeru Sood ( Dubai Campus)	ABSTCPL	35.75
4.	TNF Alpha Mediated Alternative Splicing in Type 2 Diabetes; A genome Wide Approach	Ms. Jiss Maria Louis	Mentor :Dr. Indrani Talukdar	DST ( WOS)	20
5.	Cloning of spot blotch disease resistance gene in wheat.	Dr. Rajesh Mehrotra		CIMMYT	15
<b>Chemical Engineering</b>					
6.	Electrochemical Process for Hydroiodic acid (HI) decomposition in Iodine-Sulfur Cycle:A feasibility study ( Industry Sponsored Projects).	Dr. Pradeep Sow		ONGC Energy Centre	11.69
7.	Performance Assessment Studies on the production process of Thiamethoxam	Dr. S. D. Manjare		M/s. Deccan Chemicals Ltd.	3.09

S.No	Project Title	Principal	/ Co-Principal Investigator	Sponsored Organization	Amount Sanctioned/ Approved) (Rs. In Lacs)
Chemistry					
8.	Development of Potocatalyst embedded Graphene based membranes for Treatment of Dye containing waste water under Sunlight.	Dr. N. N. Ghosh	Dr. Rajib Ghosh ( Dubai Campus)	ABSTCPL	26.1
9.	Photo-irradiation and Adsorption based Novel Innovations for Water-treatment" (PANI).	Dr. Halan Prakash	Consortium partners comprise of 5 European countries, Ireland, UK, Spain, Italy, Cyprus and 5 Indian partners, NEERI, Nagpur; Kwality Photonic, Hyderabad; Affordable water solutions, Hyderabad; Society for Alternative Developments, New Delhi; and Society for Technology & Action for Rural Advancement, New Delhi.	Horizon H2020 (EU) - DST	288
Mechanical Eng.					
10.	Material property guides for Rotational moulding	Dr. Sachin Waigaonkar		Society of Asian Rotomoulders (STAR)	0.75
11.	BMW	HoD Mechanical		BMW	25
Economics					
12.	MDP workshop for PNB-MetLife	Dr. Debasis Patnaik		MDP for PNB-MetLife	1.99
Physics					
13.	Noninvasive investigation of stem cell differentiation using an in house	Dr. Geetha Varier	Dr. P. Nandakumar (Mentor)	WOS-A	32.1
EEE					
14.	MPSoC Based Automated Digital Signal Processing System for Tokamak Reflectometry	Dr. Amalin Price		BRNS	35
CS &S					
15.	Mobile App for improving survival in fires through efficient egress: The role of impromptu indoor WiFi localization and georeferenced building maps	Dr. Ashwin Srinivasan	Dr. Vinayak Naik and Dr. Raja Sengupta ( Canada) & Liliانا perez ( Canada)	DST and IC-IMPACT canadian Project	36.56

#### Projects completed

S.No.	Project Title	Principal	Co-principal Investigator	Agency	Sanction (Rs. in Lakhs)
Biological Sciences					
1.	Sanitation, water and solid waste for development	Dr. M. Srikanth		Agreement between EAWAG, Switzerlan and BITS, Goa	726000 (As per Dr Sunil Bhand) First installment CHF 9000 Second installment CHF 2000

S.No.	Project Title	Principal	Co-principal Investigator	Agency	Sanction (Rs. in Lakhs)
2.	Onsite electrochemical wastewater treatment and recycling technology	Dr. M. Srikanth		Bill & Melinda Gates Foundation (through Caltech)	\$ 42759 (29 lakhs)
3.	Analytics Sensor Test-Kit for advanced process control	Crane field University Collaborators Dr. Srikanth Mutnuri (PI)	Dr. Nitin Sharma (CoPI)	Bill and Melinda Gates Foundation	GBP 135000
4.	Hybrid Electrochemical-MFC waste processing: Functional blocks for low energy disinfection and denitrification of human waste streams	Dr M. Srikanth		Gates Foundation through RTI International	1400000
5.	Network on decentralized Grey/waste water treatment & recycling	Dr. M. Srikanth		Indo-French water network programme of CEFIPRA	344340
Chemical Engineering					
6.	Experimental and simulation studies on coke mitigation in petroleum refinery systems	Dr. Srinivas Krishnaswami	Dr. K. Ponnani	CHT	13297000
Chemistry					
7.	Novel micro biosensor device for heavy metal analysis in vegetables	Dr. Sunil Bhand	Mr. Gautam Bacher Principal Collaborator: Mr. Vishal Dhamgaye (RRCAT, Indore) Dr. G. S. Lodha (RRCAT, Indore)	RRCAT indore and UGC DAE consortium Indore	100000
Electrical & Electronics Engineering					
8.	Namaste	Dr. Raghurama G.		Namaste	222150 Received in 2016-17

## Hyderabad Campus

### Ongoing projects

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Co-treatment of domestic septage and municipal solid waste landfill leachate using dry-thermophilic anaerobic digestion for the production of bioenergy and biofertilizer	P. Sankar Ganesh	BIRAC	28	2 Years
2.	Characterization of a mouse embryonic stem cell model to study the effects of increased levels of DNA methyltransferase 1 (DNMT1) on abnormal neurogenesis	Dr Kommu NagaMohan	DST	40.38	2014-2018
3.	Transgenic Embryonic stem cell models for studying the role of elevated levels of DNMT1, and DNMT3A in neuropsychiatric disorders.	Dr Kommu NagaMohan	DBT	25.0	2014-2018
4.	Mechanistic basis of abnormal neurogenesis due to HSN1E-associated DNA methyltransferase 1 (Dnmt1) mutation and	Dr. Kommu Naga Mohan	DBT	68.40	2017-2020



S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
	pharmacological intervention for phenotypic correction				
5.	Combined Genetic and Epigenetic Analysis of Oral cancer for prognosis of patients	K. Naga Mohan	DBT	138.0	2018-2021
6.	Harnessing mucosal immunity towards improved resistance against tuberculosis.	Dr. Ruchi Jain Dey	DBT-Ramalingaswamy Fellowship	32.5	2018-2023
7.	Protein structure and stability modulation due to In-Cell and In-Vitro Crowding: Molecular insights on the origin of the effects of crowding	Ramakrishna Vadrevu	DST	54	2017-2020
8.	Sequence based design and characterization of peptide-amyloid nano material: Exploring functionalit	Ramakrishna Vadrevu	BRNS	29.7	2018-2021
9.	Biofuels from lignocellulosic biomass waste: Biosolubilization and biomethanation of lignin	Dr. Asma Ahmed	DST	27.2	July 2014 (3.5 years)
10.	Studies on CO2 Capture from Flue Gases using Regenerable Solid Adsorbents	Dr. Srikanta Dinda	CSIR	23.8	October 2015, (3 Years)
11.	Efficacy of appropriately tailored biopolymer and carbonaceous adsorbents for the separation and recovery of Europium	N. Rajesh	DST SERB	29.59	3 years
12.	Investigations on naphthalene and anthracene based phosphosates/phosphates: important sources for alkene based new alegers and polyaryllalkanes	Manab Chakravarty	CSIR	16.2	3 years
13.	Synthesis, study of optical properties and anticancer activity of unique di-substituted tetracyanoquinodimethanes	J. Subbalakshmi	DST-EMR	25.74	3 years
14.	Photocatalytic reduction of CO2 to biofuels	Sounak Roy	CSIR	4	3 years
15.	CO2 capture from flue gases using regenerable solid adsorbents	Srikanta Dinda; Sounak Roy (CO-PI)	CSIR	24.5	3 years
16.	DST Inspire Fellowship	Chanchal Chakraborty	DST INSPIRE	35	5 years
17.	Performance Evaluation of backfill soils partially replaced with building derived materials	Dr. Anasua Guharay (PI) and Dr. Arkamitra Kar (Co-PI) from BITS Pilani-Hyderabad Campus, Dr. Naveen James (Co-PI) from IIT Ropar	DST SERB Early Career Research Grant (Grant No. ECR/2016/000522)	INR 24.43 Lakhs	3 Years (September 2016-September 2019)
18.	Multiobjective Evolutionary Approach for Solving Water Distribution Network Design Optimization	Prof. A. Vasani (PI) & Dr. Murari R. R. Varma (Co-PI).	Council of Scientific and Industrial Research (CSIR), New Delhi, India.	INR 18.46 Lakhs	May 2017-April 2020

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
			(Grant No. 22(0723)/17/EM R-II dated 16.05.2017		
19.	Improving the seismic performance of dynamically similar buildings using damper connected control technique	Dr. S. C. Mohan	DST	INR 43.2 Lakhs	July 2017 - July 2020
20.	Coastal wetland Characterization using L and S bands of Polarimetric SAR data	Dr Rajitha K	ISRO-SAC	INR 13.58 Lakhs	Dec-2017- Dec-2020
21.	State of the art on the utilization of higher percentage of reclaimed asphalt pavement (rap) in hot asphalt mixes (ham) with warm mix additives - laboratory and field evaluation	Prof. Sridhar Raju (PI), Prof. V. Vinayaka Ram (Co-PI)	MoRTH	INR 6.255 Lakhs	Aug 2017- Mar 2018
22.	Preparation of State of the Art Report (SOAR) on Effect of Temperature Stresses in Concrete Pavement.	Prof. V. Vinayaka Ram (PI), Prof. Sridhar Raju (Co-PI)	MoRTH	INR 6.44 Lakhs	Aug 2017- Mar 2018
23.	Preparation of State of Art Report (SOAR) on Use of Polymer Fibers and Steel Fibers for improvement in concrete properties”	Prof. P N Rao	MoRTH	INR 6.587 Lakhs	Aug 2017- Mar 2018
24.	<u>Lightweight Code Self-verification for Internet of Things (IoT) Devices</u>	Prof. Chittaranjan Hota	DeitY-NWO	48.00	2015-19
25.	<u>Network Coding with Pascal Coefficients for unreliable networks</u>	Dr. Paresh Saxena	AnsuR Technologies, Oslo, Norway	5.55	2018-19
26.	OPERA	Sayan Kanungo	BITS OPERA	3.6 per year	5 years
27.	Simulation Design and Modelling of Vertical Heterostructure Transition Metal Dichalcogenides for Label-free Electrochemical Gas-sensing Applications	Sayan Kanungo	BITS RIG	2	2 years
28.	Metal-Oxide and Nano-Composite Based Low-Power Non-volatile Switching Device: A Novel Approach.	Souvik Kundu	BRNS, DAE	Rs. 34,90,650/-	3 Years
29.	Investigations of the effects of photon up-conversion materials on the electrical performance of ferroelectric/semiconductor heterojunction photovoltaic devices	Souvik Kundu	SERB (EMR), DST	Rs. 35,63,997/-	3 Years
30.	Development of low power motion estimation architecture for HEVC application	Sumit K Chatterjee	BITS RIG	2	2 Y
31.	Strategies for Fault-Tolerant Network-on-Chip Design	Soumya J	ECR-SERB	25.93	3 Years
32.	Underwater Characterization of Solar cells and its Optimization	Sanket Goel	DMSRDE, DRDO	9.85 lakhs	2 Years
33.	Digital 3D Printed Electronic Technology for Space Electronic Packaging Applications	Sanket Goel	ISRO	26.36 lakhs	3 years
34.	Research on Applied Signal Processing	Rajesh Kumar Tripathy	BITS OPERA	3.6 lakhs per year	5 years
35.	OPERA	Manish Narwaria	BITS OPERA	3.6 lakh per year	5 years

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
36.	Wavelet based pattern recognition and motor current signature analysis of stator winding faults due to insulation failure in industrial machines	Sudha Radhika	BITS RIG	2	2 Years
37.	Design and Implementation of Hardware Architectures for Media Processing Applications	Syed Ershad Ahmed	BITS RIG	2	2 Years
38.	Determinants of Women Empowerment and Trickle-Down Effect of the Same on Children's Overall Educational and Health Development: Challenges, Effects and Intervention through Training	Sudatta Banerjee (and Swati Alok)	ICSSR	Rs. 400000/-	1 year
39.	Career Persistence of Indian Women Professionals in Information Technology (IT) Sector: Brakes, Accelerators, Challenges and Opportunities	Swati Alok (and Sudatta Banerjee)	ICSSR	Rs. 200000/-	1 year
40.	Women's Employment, Interstate Variations and Time-use: A Comparative Study of Bihar and Andhra Pradesh	Joint PI: Sunny Jose (HSS) & Bheemeshwar Reddy A	Azim Premji University	Rs.11,88,000	2 year
41.	Women's Employment, Interstate Variations, and Time-use: A Comparative Study of Bihar and Andhra Pradesh	Prof. Sunny Jose	Azim Premji University	Rs. 11, 88, 000	20 months
42.	Identification of accents	Dr. Pranesh Bhargava	OPERA	2 Lakhs per year	2 years
43.	Alternative ways of understanding ecological conservation practices to enable justice for all	Dr. Lavanya Suresh	NALSAR, Hyderabad	Rs. 2,95,000	8 months
44.	Resistance to the Western Ghats Conservation and Undercurrents: A study of the people's protest and the role of the local bodies in Idukki, Kerala	Dr. Lavanya Suresh	Centre for Development Studies (CDS), Kerala	Rs. 3,15,000	16 months
45.	Political Ecology	Dr. Lavanya Suresh	OPERA	Rs.3.60 Lacs per year	5 years
46.	Measuring Segregation in Hyderabad: Introspecting Multiple Indexes and Multiple Patterns	Dr. Suchismita Satpathy	RIG	Rs.2 lacs	2 years
47.	A Study of Disaster Management Plans in India	Dr Biswanath Dash	RIG	Rs.2 Lacs	2 years
48.	An Evaluative Study of ESP Programmes in India	Dr. Santosh Mahapatra	RIG	Rs.1.7 Lacs	2 Years
49.	Formability Study of Inconel 625 alloy at Elevated Temperatures for Aerospace Applications	Dr. Nitin Kotkunde	DST	30	2017-2020
50.	Application of topology optimization to enhance energy efficiency and performance of industrial manipulator	Dr. Arshad Javed	DST	29.00	2017-2020
51.	Study of lubrication method for enhanced surface finish and reduced draw load on cold draw steel tubes	Prof. A. K. Gupta (Co PI), Prof. S. P. Regalla (Co PI)	Tubes Investment India Ltd.	27.5	2017-2020
52.	"Development of Metamaterial Base Support" for isolating vibrations	Dr. Sabareesh	DRDO	13.80	2017-2019

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
53.	Cryogenically-Conditioned Micro and Nanoencapsulated Phase Change Material Slurries for Cool Thermal Energy Storage Applications	Dr. Parameshwaran R	DST	30.00	2017-2020
54.	Novel casting approach to improve quality of aluminum alloy casting	Prof. N. S. K. Reddy	DRDL	9.85	2017-2020
55.	Simulation and Modelling to Minimize Porosity Level in Aluminium Castings by using Ultrasonic Stir Casting	Prof. N. S. K. Reddy	L& N Structural Engineers (P) LTD	8.03	2016-2019
56.	Studies on remaining useful life prediction considering multi-component failures in a wind turbine using prognostic health monitoring techniques	Dr. Sabareesh G. R	DST	26.04	2016-2019
57.	Hydrogen Storage in Mesoporous Polymer Derived Ceramics for Automotive Application	Dr. Sujith R	DST	42.38	2016-2019
58.	Enhancement of Mechanical Properties of Ti-6Al-4V using Constrained Groove Pressing and Heat Treatment	Prof. A. K. Gupta	DRDO (ARMREB)	45.6	2016-2019
59.	Cryogenically-conditioned micro and nanoencapsulated phase change material slurries for cool thermal energy storage applications	Dr. R. Parameshwaran	DST-SERB ECR	27.76	2017-2020
60.	Formability study of inconel 625 alloy at elevated temperatures for aerospace applications	Dr. Nitin Kotkunde	DST-SERB ECR	31.43	2017-2020
61.	Application of topology optimization to enhance energy efficiency and performance of industrial manipulator	Dr. Arshad Javed	DST-SERB ECR	29	2017-2020
62.	Development of meta material base support for isolating vibration	Dr. Sabareesh GR	DMDE, DRDO	13.8	2017-2018
63.	Novel casting approach to improve quality of aluminum alloy casting	Prof. NSK Reddy	DRDL, DRDO	9.85	2017-2020
64.	Construction of arbitrary tensor networks using cross approximation	N. Kishore Kumar	NBHM	13.591	2015-2018
65.	Development of an encryption algorithm for secure transmission of color images	Manish Kumar	SERB - DST	15.08	2016-2019
66.	Development of an accurate and robust unstructured grid-based adjoint approach for compressible turbulent flows	Anil Nemili	SERB - DST	15.906	2017-2020
67.	Comparison of phase velocities of Rayleigh waves, Love waves and Torsional waves in various anisotropic geo-media	Sumit Kumar Vishwakarma	SERB - DST	13.668	2017-2020
68.	Strategies against antibiotic resistance in Mycobacterium tuberculosis and ESKAPE pathogens; new drugs and new targets	D. Sriram	Indo-Sweden-3	67	3 years
69.	Advancing host-directed therapy for tuberculosis/MDR-TB: Development of novel PKB/AKT1 and Protein Kinase R inhibitors as an adjunctive treatment for tuberculosis	D. Sriram	DBT-Tata Innovation	27	3 years
70.	Design and synthesis & biological evaluation of Mycobacterium tuberculosis	D. Sriram	DST	27.61	3 years

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
	serine/threonine protein kinase (BPknB) inhibitors				
71.	Development of a Non-invasive biodegradable polymeric microprojection ocular patch for effective corneal delivery of anti-microbial agents to treat fungal infections of eye	V Vamsi Krishna Venuganti	ICMR	42.25	3 years
72.	Development of pH-responsive smart capsule containing targeted multilayer film for drug delivery: The proof-of-concept study in colorectal cancer model	V Vamsi Krishna Venuganti	DST	55.54	3 years
73.	Preparations and Characterization of a topical gel formulation of topical gel formulation of IS107	V Vamsi Krishna Venuganti	ISSAR	5.63	1 year
74.	Transcutaneous delivery of liraglutide using zein microneedle array	V Vamsi Krishna Venuganti	NATCO	22.42	1 year
75.	Development and characterization of a topical gel formulation of a candidate drug	V Vamsi Krishna Venuganti	Sarudbhava Formulations Pvt. Ltd.	6	1 year
76.	Development and characterization of a topical formulations	V Vamsi Krishna Venuganti	ISSAR-2	9.79	1 year
77.	Investigations on pro-inflammatory cytokine inhibitory low molecular weight metabolites of Pseudomonas sp. ABS -36 for the treatment of renal injury	A. Sajeli Begum	DST	24.39	3 years
78.	Investigation on knowledge of Dengue fever followed by its education and post impact behavioural changes among rural communities of Shamirpet Mandal	A. Sajeli Begum	ICSSR-ICMR	10.9	2 years
79.	Technical and knowledge support for preparation and filing of drugs master file (DMF) as per common technical documents (CTD) for sennosides USP including the analytical requirements	Punna Rao Ravi	Shahsi Phytochemical Ltd	5.75	2 years & 4 months
80.	Design, Synthesis and Biological Evaluation of HDAC3 Selective Inhibitors as Long Term Memory Enhancers	Balaram Ghosh	DST	29.87	3 years
81.	Development of epigenomes-targeted liposomes for the cancer specific delivery of chemotherapeutic drug, Doxorubicin	Swati Biswas Balaram Ghosh	SUN Pharma Advanced Research Company Ltd.	29	2 years
82.	Formulation development and physico-chemical/in vitro/in vivo characterization of a nano-suspension formulation of an anticancer drug	Balaram Ghosh	Dr. Reddy's Laboratory, Hyderabad	9	3 years
83.	Functional role of histone deacetylase 5 (HDAC5) in the pathogenesis of chronic kidney diseases and renal fibrosis	Onkar Kulkarni	DBT	46	3 years
84.	Role of interleukin 22 in diabetic wound healing and regeneration	Onkar Kulkarni	DST	27.26	3 years
85.	Role of double stranded RNA dependent protein kinase (PKR) in hypertension: Mechanism and prevention	Arti Dhar	DST	26.04	3 years

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
86.	UK-India Centre for Advanced Technology for Minimization of indiscriminate use of Antibiotics (UKICAT-MA)	PI - Dr. Prashant Garg (LVPEI), Co-PI - V Vamsi Krishna Venuganti	DBT-MRC	35	3 years
87.	Understanding the Role of Antimicrobial S100A12 ( Calgranulin C) Mediated Host Defense in Pseudomonas Keratitis and Developing Nano-tools for Efficient Delivery of S100A12	Dr. Sanhita Roy, Co-PI - Swati Biswas	DST LVPEI, Hyderabad	16.38	3 years
88.	Development of Paclitaxel Nano-formulation	Swati Biswas	Dr. Reddy's Laboratory, Hyderabad	8.27	3 years
89.	Fundamental Physics in strong gravitational field of neutron stars	Prof. Sarmistha Banik	DAE-BRNS	24.39650	2018-2021
90.	Quantum Gravity in Rindler space	Dr. Prasant Samantray	CSIR	15.46	2016-2019
91.	Quantum theory of Black holes and Quasinormal modes	Dr. Swastik Bhattacharya	BITS Pilani (RIG)	1.48	2018-2020

Projects sanctioned during the year

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1.	Conditional pathogenesis: understanding why potentially beneficial rhizobacteria turn pathogenic under certain environmental conditions.	Dr. Sridev Mohapatra	DBT	45	3 years
2.	Understanding the role of long non-coding RNAs (lncRNAs) in transforming growth factor-beta (TGF- $\beta$ ) pathway in Glioblastoma	Dr. Vivek Sharma	DST-SERB	47	3 years
3.	Identification of the regulatory mechanisms executed by bile acids during inflammation induced colon cancer	Dr. Trinath Jamma	DST-SERB ECRA	43	3 years
4.	Composition of phenolic resin from two sources for their properties	Dr. Karthik C. V	ASL(DRDO)	9.792	April 2018, (1 Year)
5.	Reactive transport modeling & simulation of CO <sub>2</sub> sequestration in deccan volcanic province	Dr. Vikranth K. Surasani	DST	21.736	April 2018, (3 Years)
6.	Cracking of hydrocarbon fuel for a possible heat sink application	Dr. Srikanta Dinda	DRDO	40.65	September 2018, (2 years)
7.	Women Scientist (Dr. Atasi Mukherjee Under Prof. Manab Chakravarty	Manab Chakravarty	WOS	31.55	3 years
8.	Ultracold chemistry of molecular ions	SubhasGoshal	DST	24	3 years
9.	Preparation and characterization of electrode material for Lithium ion Batteries	Sounak Roy	HBL Power Systems Limited.	7	1 year
10.	Develop of novel anti-leishmanial analogues loaded with novel nano-formulations	K V G Chandra Sekhar (CO-PI)	DBT	13	2 years
11.	DST Inspire Faculty award	Amit A. Vernekar	DST	35	5 years

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
12.	Research Initiation Grant	Amit A. Vernekar	BITS	2	2 years
13.	Implementation of plants and treated natural fibers to enhance the strength properties of soft soil and to decrease the rate of surface erosion (Nat-Treat)	Dr. Anusua, Dr. Wei Wu (Universität für Bodenkultur BOKU), Co-PI: Dr. Arkamitra Kar, Austrian, Dr. M. Acharya (BOKU)			2018-2020
14.	Economic Construction Practice Using Bacterial Inclusions in Concrete to Improve its Durability	Dr. Arkamitra Kar, Co-PI: J. Ray Dutta, M. Bandopadhyay (Univ. of Pittsburgh)	Council of Scientific and Industrial Research (CSIR), New Delhi, India.	INR 17 Lakhs	Sep 2018-Sep 2021
15.	Pre-feasibility study of Battery Electric buses in India	B. Potogloe (Cardiff University), Co PI: B. B. Majumdar, A.K. Sarkar, P. Sahu	Global Challenge Research Fund, UK	INR 12.83 Lakhs	May 2018-May 2021
16.	Investigations of the effects of photon up-conversion materials on the electrical performance of ferroelectric/semiconductor heterojunction photovoltaic devices	Souvik Kundu (PI), K. Ramaswamy (Co-PI) and B. H. Venkatraman (Co-PI)	SERB (EMR), DST	Rs. 35,63,997/-	3 Years
17.	Development of Methodologies for Self-Aware Network-on-Chip Design	Soumya J	Indo-Austria (OeAD-DST)	Recommended	2 Years
18.	Underwater Characterization of Solar cells and its Optimization	Sanket Goel	DMSRDE, DRDO	9.85 lakhs	2 Years
19.	Digital 3D Printed Electronic Technology for Space Electronic Packaging Applications	Sanket Goel	ISRO	26.36 lakhs	3 years
20.	Determinants of Women Empowerment and Trickle-Down Effect of the Same on Children's Overall Educational and Health Development: Challenges, Effects and Intervention through Training	Sudatta Banerjee (and Swati Alok)	ICSSR	Rs. 400000/-	1 year
21.	Women's Employment, Interstate Variations and Time-use: A Comparative Study of Bihar and Andhra Pradesh	Joint PI: Sunny Jose (HSS) & Bheemeshwar Reddy A	Azim Premji University	Rs.11,88,000	2 year
22.	Heat Transfer Enhancement Study of Li-ion Battery Pack (Phase-1)	Prof. Jeevan Jaidi	HBL Power Systems Ltd., Hyderabad	5.31	2018 (6 Months)
23.	Automated Ultraviolet-C Sterilization Robot	Dr Arshad Javed	BIRAC	15	2018 (6Months)
24.	Design and development of an automated flow calibration system for fuel and oxidizer injectors reaction control system.	Dr. Sabareesh GR	DRDO, CAS_CARS	9.32	2018-2020
25.	"Design and development of an automated flow calibration system for fuel and oxidizer injectors reaction control system	Prof SS Deshmukh	DRDO, CAS	10	2018-2020
26.	Studies on wind resistant design for proposed LIGO INDIA OBSERVATORY	Dr. Sabareesh GR	IUCAA	44.81	2018-2021
27.	Development of image processing based portable device to measure surface strains in sheet metal forming	Dr Kurra Suresh	DST	17.24	2018-2021
28.	Sustainable technological solutions for energy efficiency in jaggery industry (STEEJ)	Dr Srinivas M	RAE	42.81	2018-2020

S.No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
29.	Characterizing the sets of periodic points of automorphisms on a solenoid	Sharan Gopal	SERB - DST	19.98480	2018–2021
30.	Consultancy Project	Punna Rao Ravi	Acubiosys Pvt. Ltd.,	11.75	1 year
31.	Determination of wound healing (pro-angiogenic properties of peptide conjugate)	PI- Dr.Raunak Varshney (DRDO) Co-PI – Onkar Kulkarni	Institute of Nuclear Medicine & Allied Sciences (DRDO)	8	2 years
32.	Development and characterization of emulsion based drug product for the management of emetogenic cancer chemotherapy	Akash Chaurasiya	Slayback Pahrma	3.95	



MEMBERS OF VARIOUS BODIES AND COMMITTEES OF THE INSTITUTE

(A) GENERAL BODY

*Chancellor:*

Dr. Kumar Mangalam Birla

*Pro-Chancellor:*

Smt. Shobhana Bhartia

*Founding Member :*

Shri B.K. Birla

*Vice-Chancellor, BITS:*

Prof. Souvik Bhattacharyya

*Members admitted by General Body :*

1. Shri Chandramauli Balan
2. Shri Sidharth Birla
3. Shri Tridib Kumar Das
4. Prof. Asis Datta
5. Smt. Manjushree Khaitan
6. Shri Hemant Kumar
7. Prof. L.K. Maheshwari

*Four Alumni Term Members:*

1. Prof. D. Balasubramanian
2. Shri Raju Reddy

*Representative of MHRD, Govt. of India:*

Shri Sukhbir Singh Sandhu

*Representative of UGC:*

Vacant

*Representative of CSIR:*

Dr. Santanu Chaudhury

*Representative of AICTE:*

Dr. S.K. Chopra

*Representative of FICCI:*

Shri Anand Sudarshan

*Non-Member Secretary:*

Shri Ernest Samuel Ratnakumar J, Registrar

(B) BOARD OF GOVERNORS

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Dr. Kumar Mangalam Birla

*Pro-Chancellor:*

Smt. Shobhana Bhartia

*Honorary Treasurer:*

Vacant

*Vice-Chancellor of BITS:*

Prof. Souvik Bhattacharyya

*One Director of Campuses by rotation:*

Prof. Ashoke Kumar Sarkar

*One Nominee of AICTE:*

Prof. Rajive Kumar

*Three Nominees of the Government of India:*

1. Shri R. Subrahmanyam

*Four Nominees of the BET:*

1. Shri B.K. Birla
2. Shri Sidharth Birla
3. Shri Hemant Kumar

*Three Members Selected by the General Body:*

Vacant

*Four Members coopted by the Board of Governors:*

1. Smt. Manjushree Khaitan
2. Shri D. Bhattacharya

*One Nominee of the Zuari Industries Limited:*

Shri Akshay Poddar

*Non-Member Secretary:*

Shri Ernest Samuel Ratnakumar J, Registrar

(C) FINANCE COMMITTEE

*Chancellor:*

Dr. Kumar Mangalam Birla

*Honorary Treasurer:*

Vacant

*One Person nominated by the Board:*

Vacant

*One Person nominated by the BET:*

Shri Hemant Kumar

*Vice-Chancellor:*

Prof. Souvik Bhattacharyya

*Registrar:*

Shri Ernest Samuel Ratnakumar J  
Member-Secretary

(D) BUILDING AND WORKS COMMITTEE

*Chairman (Vice -Chancellor):*

Prof. Souvik Bhattacharyya

*Members:*

*Director, Pilani Campus:*

Prof. Ashoke Kumar Sarkar

*Director, Hyderabad Campus:*

Prof. G. Sundar

*Director, K.K. Birla Goa Campus:*

Prof. G. Raghurama

*Nominated members (2):*

Vacant

*Member-Secretary:*

Shri Ernest Samuel Ratnakumar J, Registrar

*Mr. Anand K Patil, K.K. Birla Goa Campus will be special invitee to the committee*

(E) PURCHASE COMMITTEE

*Convenor:*

*Unit Chief, CPU:*

Prof. N.V. Muralidhar Rao

*Members:*

*Director:*

Prof. Ashoke Kumar Sarkar

*Dean, Administration:*

Prof. Sanjay Kumar Verma

*Head, Accounts & Finance:*

Shri Satyen Sharma

(F) FACULTY SELECTION COMMITTEES

1. *University Level Selection Committee:*

- Vice-Chancellor (or his nominee) – Chairman
- At least two external experts in the concerned discipline
- Directors of the BITS campuses
- One of the Chairmen of the Department Level Shortlisting committees from one of the campuses in the concerned Department/Discipline
- Dean of Faculty Affairs – Convenor
- Associate Dean(s) of Faculty Affairs - Invitees

2. *University Level Shortlisting Review Committee :*

- Vice-Chancellor (or his nominee) - Chairman
- Directors of BITS Campuses
- Dean of Faculty Affairs - Convenor

3. *Campus Level Shortlisting Review Committee (one for each of the campuses)*

- Director of the campus - Chairman
- 2 or more Senior Professors or Professors – to be identified by the campus Director
- Associate Dean of Faculty Affairs of the campus - Convenor

4. *Department Level Application Shortlisting Committee (at least 3 members) (one for each campus and for each discipline)*

Chairperson – to be nominated by the campus Director from amongst:

- (a) The HODs, if he/she is a Senior Professor or Professor, ELSE
- (b) Any Senior Professor or Professor from the Department, ELSE
- (c) Any Senior Professor or Professor from a related discipline, ELSE
- (d) Any Senior Professor or Professor from the campus
- All other Senior Professors, Professors and Associate Professors from the Department,
- Additionally up to two Senior Professors or Professors from the campus if the members above are fewer than 3 – to be nominated by the campus Director.

The shortlisting committee will seek the views of all faculty members in the department in its effort to shortlist or not shortlist a candidate by having them express their opinion at any time, but particularly during the audio-visual interaction with the candidate.

## MEMBERS OF THE SENATE

### Chairman (Vice -Chancellor):

Prof. Souvik Bhattacharyya (Sr. PROF)

### Vice-Chairman (Director, Pilani Campus):

Prof. Ashoke Kumar Sarkar (Sr. PROF)

### Secretary:

Mr. Ernest Samuel Ratnakumar J

### Directors:

Prof. Ranendra N. Saha (Sr. PROF), Dubai Campus

Prof. G. Raghurama (Sr. PROF), K.K. Birla Goa Campus

Prof. G. Sundar (Sr. PROF.), Hyderabad Campus & Off-Campus Programmes & Industry Engagement

### Deans:

#### Institute Wide Deans :

Prof. S. Balasubramaniam (PROF), Pilani Campus

Prof. S. Gurunaryanan (PROF), Pilani Campus

Prof. Arya Kumar (PROF), Pilani Campus

Prof. A. P. Singh (PROF), Pilani Campus

Prof. Sunil Bhand (PROF), K.K. Birla Goa Campus

Prof. Srinivas Krishnaswamy (PROF), K.K. Birla Goa Campus

Prof. Suman Kapur (Sr. PROF), Hyderabad Campus

Prof. Souri Banerjee (PROF), Hyderabad Campus

#### Campus Specific Deans :

##### Pilani Campus

Prof. Sanjay Kumar Verma (PROF)

##### K.K. Birla Goa Campus

Prof. Dhananjay M. Kulkarni (PROF)

##### Hyderabad Campus

Prof. Niranjana Swain (PROF)

### Associate Deans:

#### Pilani Campus

1. Prof. Suresh Gupta (ASOP), Academic-Undergraduate Studies
  2. Prof. Jitendra Panwar (PROF), Academic-Undergraduate Studies & Research
  3. Prof. Anshuman Dalvi (PROF), Faculty Affairs
  4. Prof. Navneet Gupta (ASOP), SR&C
  5. Prof. Dalip Kumar (PROF), IPC
  6. Prof. P. Srinivasan (ASOP), WILP
  7. Prof. P.B. Venkataraman (ASOP), WILP
  8. Prof. Hitesh Datt Mathur (ASOP), WILP
  9. Prof. Anil B. Gaikwad (ASOP), PS
  10. Prof. Srikanta Routroy (PROF), Student Welfare
  11. Dr. Rajeev Sakhuja (ASOP), Alumni Relations
- Off-Campus Centre
12. Prof. Annapoorna Gopal (ASOP), Bangalore
  13. Prof. G. Venkiteswaran (ASOP), Chennai

#### K.K. Birla Goa Campus

1. Prof. K. R. Anupama (PROF)
2. Prof. Neena Goveas (PROF), Academic-Undergraduate Studies
3. Prof. Bharat M. Deshpande (PROF), Academic-Graduate Studies & Research
4. Dr. C.K. Ramesha (ASOP)

5. Prof. Sutapa Roy Ramanan (PROF)
6. Prof. Raghunath A. Ratabole (ASOP)
7. Prof. Narendra Nath Ghosh (PROF)
8. Prof. Veeky Baths (ASOP)
9. Prof. Meenal Kowshik (PROF)

#### Hyderabad Campus

1. Prof. Bivudutta Mishra (ASOP), IPC
2. Prof. Sandip Shridharrao Deshmukh (ASOP), Student Welfare
3. Prof. P. Sankar Ganesh (ASOP), PS
4. Prof. Meenakshi Viswanathan (ASOP), Alumni Relation
5. Prof. Venkat Vamsi Krishna Venuganti, Academic-Graduate Studies & Research
6. Prof. Vidya Rajesh (ASOP), Faculty Affairs
7. Prof. Punna Rao Ravi (ASOP), WILP
8. Prof. A. Vasana (ASOP), Academic-Undergraduate Studies
9. Prof. Anupam Bhattacharya (ASOP), SR&C

#### Dubai Campus

1. Prof. Kumar Karuppusamy (PROF)
2. Prof. Priti Bajpai (PROF)
3. Prof. Muralidharan Baladhandapani (PROF) Prof. Ramanujam Karthikeyan (PROF)

**Professors (PROF):****Pilani Campus**

1. Prof. Debashish Bandyopadhyay (PROF)
2. Prof. Surekha Bhanot (PROF)
3. Prof. Anil Kumar Bhat (PROF)
4. Prof. V.K. Chaubey (PROF)
5. Prof. Mani Sankar Dasgupta (PROF)
6. Prof. Ashis Kumar Das (PROF)
7. Prof. Navneet Goyal (PROF)
8. Prof. Anu Gupta (PROF)
9. Prof. Chandra Bhan Gupta (PROF)
10. Prof. Rajiv Gupta (Sr. PROF)
11. Prof. Rajiv Kumar (PROF)
12. Prof. Rashmi Ranjan Mishra (PROF)
13. Prof. Janardan Prasad Misra (PROF)
14. Prof. Sudeept Mohan (PROF)
15. Prof. Bandi Venkata Prasad (PROF)
16. Prof. N.V. Muralidhar Rao (PROF)
17. Prof. Ram Kinkar Roy (PROF)
18. Prof. Kuldip Singh Sangwan (PROF)
19. Prof. Chandra Shekhar (Sr. PROF)
20. Prof. Shamsher Bahadur Singh (PROF)
21. Prof. R. N. Saha (Sr. PROF)
22. Prof. R. Mahesh (PROF)
23. Prof. Rahul Banerjee (PROF)
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 Ms. Varsha Rajan, 2015A7PS0404U

Ms. Namya Sharma, 2015A8PS0468G  
 Mr. Shankar Anand, 2015B3A40570H

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2. Mr. Akul Gupta, 2016B3A70298G

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4. Prof. Ramanujam Karthikeyan, Dubai Campus

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3. Prof. Venkat Vamsi Krishna Venuganti, Hyderabad Campus

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2. Prof. Nanda Kumar Patincharath, K.K. Birla Goa Campus
3. Prof. R. Gururaj, Hyderabad Campus
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2. Prof. Manoj Kumar Soni

*Student Member (2):*

1. Mr. Harsh Jaiswal, 2015B3A30525P
2. Ms. Vratika Jain, 2016A8PS0287P

II. K.K. Birla Goa Campus:

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*Student Member (2):*

1. Ms. Mahima V., 2016A3PS0191G
2. Mr. Priyal Chhatrapati, 2016A8PS0378G

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2. Prof. Ramakrishna Vadrevu

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2. Ms. Archana Swaminathan, 2016B4A80535H

IV. Dubai Campus:

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*Student Member (2):*

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3.	Chemical Engineering	Dr. Ajaya Kumar Pani
4.	Chemistry	Prof. Ajay Kumar Sah
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6.	Economics & Finance	Dr. Monika Gupta
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8.	Humanities and Social Sciences	Prof. Gajendra Singh Chauhan
9.	Mathematics	Dr. Sangita Yadav
10.	Mechanical Engineering	Dr. Prateek Kala
11.	Management	Dr. Neetu Yadav
12.	Pharmacy	Dr. Sandeep Sundriyal
13.	Physics	Prof. Niladri Sarkar

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3.	Chemistry	Dr. Jayadevan Kampurath Poduvattil
4.	Computer Science & Information Systems	Prof. Basbdatta Sen Bhattacharya
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6.	Electrical & Electronics Engineering	Dr. Ashish Chittora
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8.	Mathematics	Dr. Gauranga Charan Samanta
9.	Mechanical Engineering	Dr. Vadiraj Anant Hemadri
10.	Physics	Dr. Tarun Kumar Jha

Dr. Anuradha V (Deputy Librarian) - Chairman of the Library Committee

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3.	Chemical Engineering	Dr. Angan Sengupta
4.	Chemistry	Dr. Tanmay Chatterjee
5.	Computer Science & Information Systems	Dr. J Jabez Christopher
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8.	Humanities and Social Sciences	Dr. Pranesh Bhargava
9.	Mathematics	Dr. Sharan Gopal
10.	Mechanical Engineering	Dr. Arshad Javed
11.	Pharmacy	Dr. Nirmal J
12.	Physics	Prof. Aranya Bhuti Bhattacharjee

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2.	Chemical Engineering	Dr. Nishant Harishbhai Pandya
3.	Civil Engineering	Dr. Vivek Balachandra Kartha
4.	Computer Science	Dr. Angel Arul Jothi Joseph
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6.	General Sciences	Dr. Shilpee Srivastava Saxena
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## (I) ADMISSION COMMITTEE

*Vice-Chancellor (Chairman):*

Prof. Souvik Bhattacharyya

*Members:*

*Director, Pilani Campus:*

Prof. Ashoke Kumar Sarkar

*Director, K.K. Birla Goa Campus:*

Prof. G. Raghurama

*Director, Hyderabad Campus:*

Prof. G. Sundar

*Director, Dubai Campus:*

Prof. Ranendra N. Saha

*Director (Off-campus Programmes and Industry Engagement):*

Prof. G. Sundar

*Professor-in-charge - BITS Entrance Examination (Convenor):*

Prof. Chittaranjan Hota

## MEMBERSHIP

The Institute continued to be a member of the following distinguished bodies:

1. Association of Commonwealth Universities, *London*.
2. Association of Indian Universities, *New Delhi*.
3. Current Science Association, *Bangalore*.
4. Federation of Indian Chambers of Commerce and Industry – Higher Education Network, *New Delhi*.
5. India International Centre, *New Delhi*.
6. Indian Association of Social Science Institutions, *New Delhi*.
7. Indian Distance Education Association, *Hyderabad*.
8. Indian Institute of Foreign Trade, *New Delhi*.
9. Indian Society for Technical Education, *New Delhi*.
10. Institution of Communication Engineers and Information Technologists, *New Delhi*.
11. International Association of Universities, *Paris*.
12. International Council for Open and Distance Education, *Oslo, Norway*.
13. National Council of Applied Economic Research, *New Delhi*.
14. Petrotech Society, *New Delhi*.
15. Pharmacy Council of India, *New Delhi*.
16. The Institution of Engineers (India), *Kolkata*.
17. World Association for Cooperative Education, *Boston*
18. Council for Advancement and Support of Education, *Washington*
19. Association for Institutional Research, *Florida*

STATISTICS OF Ph.D. QUALIFYING EXAMINATION

BITS, PILANI – PILANI CAMPUS

I. Statistical Information for Ph.D. Programme

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2017-18	38	38	31	7
I Sem. 2018-19	54	54	42	12
Total	92	92	73	19

II. Statistical Information for Faculty Development Scheme

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2017-18	-	-	-	-
I Sem. 2018-19	-	-	-	-

Total

III. Analysis of candidates permitted to appear in Ph.D. qualifying examination

(i)	BITS Faculty (Total)	(ii)	Aspirants/Part time of High Standing and proven competence (Total)	(iii)	Full time Students (Total)
	-		18		74

Discipline wise Break -up	
Biosciences	8
Chemical	4
Chemistry	10
Civil	6
CSIS	11
Econ. & Fin.	3
EEE	12
H&SS	6
Mathematics	8
Mechanical	6
Pharmacy	9
Physics	3
Management	6
Total	<u>92</u>

## STATISTICS OF Ph.D. QUALIFYING EXAMINATION

BITS, PILANI - KK BIRLA GOA CAMPUS

### I. Statistical Information for Ph.D. Programme

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2017-18	25	25	23	02
I Sem. 2018-19	31	31	28	03
Total	56	56	51	05

### II. Statistical Information for Faculty Development Scheme

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2017-18	0	0	0	0
I Sem. 2018-19	0	0	0	0
Total	0	0	0	0

### III. Analysis of candidates permitted to appear in Ph.D. qualifying examination

(i)	BITS Faculty (Total)	(ii)	Aspirants of High Standing and proven competence (Total)	(iii)	Full time Students (Total)
	0		11		45

Discipline wise Break -up	
Biosciences	13
Chemistry	05
Chemical	05
EEE	09
Mathematics	04
Mechanical	05
CSIS	05
Lang. & Hum.	02
Management & Econ. & Fin.	03
Pharmacy	00
Physics	05
Civil	00
Total	56

STATISTICS OF Ph.D. QUALIFYING EXAMINATION

**BITS, PILANI - HYDERABAD CAMPUS**

**I. Statistical Information for Ph.D. Programme**

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2017-18	45	45	38	07
I Sem. 2018-19	45	45	39	06
<b>Total</b>	<b>90</b>	<b>90</b>	<b>77</b>	<b>13</b>

**II. Statistical Information for Faculty Development Scheme**

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2016-17	-	-	-	-
I Sem. 2017-18	-	-	-	-

**Total**

**III. Analysis of candidates permitted to appear in Ph.D. qualifying examination**

(i)	BITS Faculty (Total)	(ii)	Aspirants/Part time of High Standing and proven competence (Total)	(iii)	Full time Students (Total)
	-		23		67

**Discipline wise Break-up**

Biosciences	08
Chemical	02
Chemistry	05
Civil	06
CSIS	07
Econ. & Fin.	04
EEE	25
H&SS	02
Mathematics	07
Mechanical	10
Pharmacy	11
Physics	03
<b>Total</b>	<b>90</b>

## STATISTICS OF Ph.D. QUALIFYING EXAMINATION

BITS, PILANI - DUBAI CAMPUS

### I. Statistical Information for Ph.D. Programme

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2017-18	3	3	3	-
I Sem. 2018-19	8	8	5	3
Total	11	11	8	3

### II. Statistical Information for Faculty Development Scheme

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
II Sem. 2017-18	-	-	-	-
I Sem. 2018-19	-	-	-	-
Total	-	-	-	-

### III. Analysis of candidates permitted to appear in Ph.D. qualifying examination

(i)	BITS Faculty (Total)	(ii)	Aspirants of High Standing and proven competence (Total)	(iii)	Full time Students (Total)
	.		2 Part Time		9

Discipline wise Break -up	Discipline wise Break -up
	Biosciences 0
	Chemistry 0
	Chemical 0
	EEE 6
	Mathematics 0
	Mechanical 0
	CSIS 2
	HSS - Lang. & Hum. 1
	Management 0
	Pharmacy 0
	GS- Physics 1
	Econ. & Fin. 0
	Civil 1
	Total <u>11</u>

BITS Pilani

# annual report 2018

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Part B1: Pilani Campus



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## BITS PILANI – PILANI CAMPUS

## B1.1 SENIOR OFFICERS OF THE INSTITUTE

## DIRECTOR

Prof. Ashoke Kumar Sarkar

## REGISTRAR

Ernest Samuel Ratnakumar J

## New Administrative appointments

The following administrative appointments were made during the year:

A. The following have been appointed as Deans (Institute-wide) as per details given below:

S.No.	Name	Administrative Function	Period
1.	Prof. AjitPratap Singh	Academic – Undergraduate Studies (AUGS)	17/05/2018 to 16/05/2021
2.	Prof. S Gurunarayanan	Practice School (PS)	17/05/2018 to 16/05/2021
3.	Prof. Shan Balasubramaniam	Work Integrated Learning Programmes (WILP)	17/05/2018 to 16/05/2021

B. The following have been appointed as Deans (Campus Specific) as per details given below:

S.No.	Name	Administrative Function	Period
1.	Prof. Sanjay Kumar Verma	Administration	17/05/2018 to 16/05/2021

C. The following have been appointed as Associate Deans as per details given below:

S.No.	Name	Administrative Function	Period
1.	Prof. Suresh Gupta	Academic – Undergraduate Studies	16/08/2018 to 15/08/2021
2.	Prof. JitendraPanwar	Academic – Graduate Studies & Research	16/08/2018 to 15/08/2021
3.	Prof. Anshuman Dalvi	Faculty Affairs	16/08/2018 to 15/08/2021
4.	Prof. Navneet Gupta	Sponsored Research and Consultancy	16/08/2018 to 15/08/2021
5.	Prof. Dalip Kumar	International Programmes & Collaborations	16/08/2018 to 15/08/2021
6.	Prof. P. Srinivasan	Work Integrated Learning Programmes	16/08/2018 to 15/08/2021
7.	Prof. H.D. Mathur	Work Integrated Learning Programmes	16/08/2018 to 15/08/2021
8.	Prof. Anil B. Gaikwad	Practice School	16/08/2018 to 15/08/2021
9.	Prof. Srikanta Routroy	Student Welfare	16/08/2018 to 15/08/2021
10.	Dr. Rajeev Sakhuja	Alumni Relations	16/08/2018 to 15/08/2021
11.	Prof. G. Venkiteswaran	WILP	16/08/2018 to 15/08/2021
12.	Prof. P.B. Venkataraman	WILP	16/08/2018 to 15/08/2021
13.	Prof. Annapoorna Gopal	Practice School	16/08/2018 to 15/08/2021

D. The following has been appointed as Unit Chief as per details given below:

S.No.	Name	Administrative Function	Period
1.	Prof. N V Muralidhar Rao	Centralized Purchases	01/09/2018 to 31/08/2020
2.	Prof. Kuldeep Singh Sangwan	Placement Unit & Workshop	01/09/2018 to 31/08/2020

E. The following have been appointed as Heads of Departments as per details given below:

S.No.	Name	Department	Period
1.	Prof. PrabhatNathJha	Biological Sciences	01/09/2018 to 31/08/2020
2.	Prof. Hare Krishna Mohanta	Chemical Engineering	01/09/2018 to 31/08/2020
3.	Prof. Saumi Ray	Chemistry	01/09/2018 to 31/08/2020
4.	Prof. Anshuman	Civil Engineering	01/09/2018 to 31/08/2020
5.	Prof. Poonam Goyal	Computer Science and Information Systems	01/09/2018 to 31/08/2020
6.	Prof. Arun Kumar Giri	Economics and Finance	01/09/2018 to 31/08/2020
7.	Prof. V K Chaubey	Electrical & Electronics Engineering and Instrumentation	01/09/2018 to 31/08/2020
8.	Prof. S K Choudhary	Humanities and Social Sciences	01/09/2018 to 31/08/2020
9.	Prof. Jyoti	Management	01/09/2018 to 31/08/2020
10.	Prof. B K Sharma	Mathematics	01/09/2018 to 31/08/2020
11.	Prof. Mani SankarDasgupta	Mechanical Engineering	01/09/2018 to 31/08/2020
12.	Dr. Paul AtishTulshiram	Pharmacy	01/09/2018 to 31/08/2020
13.	Prof. Raj Kumar Gupta	Physics	01/09/2018 to 31/08/2020

F. The following have been appointed as Faculty-in-charges as per details given below:

S.No.	Name & Campus	Name of Centre	Period
1.	Prof. Vishal Saxena	Institutional Knowledge Analysis Cell (IKA Cell) - Institute Wide	16/07/2018 to 15/07/2019
2.	Dr. S U Belgamwar	First Degree Admission Tests	01/09/2018 to 31/08/2020
3.	Prof. Shamik Chakraborty	Higher Degree and Ph.D. Admission Tests	01/09/2018 to 31/08/2020
4.	Prof. DipenduBhunia	Estate Management	01/09/2018 to 31/08/2020
5.	Prof. Yashvardhan Sharma	Information Processing Centre, Software Development & Educational Technology	01/09/2018 to 31/08/2020
6.	Prof. Karunesh Kumar Gupta	Instrumentation Unit, Reprography	01/09/2018 to 31/08/2020
7.	Prof. Sangeeta Sharma	Publications and Media Relations	01/09/2018 to 31/08/2020
8.	Prof. Virendra Singh Nirban	Public Relations (including VFAST, Transport & Cafeteria)	01/09/2018 to 31/08/2020
9.	Dr. Satyendra Kumar Sharma	Entrepreneurial Leadership	01/09/2018 to 31/08/2020
10.	Dr. Virendra Singh Shekhawat	Educational Technology Support	01/09/2018 to 31/08/2020
11.	Prof. Devika	Infant Care Centre and Institute Functions	01/09/2018 to 31/08/2020
12.	Dr. Kaushar Vaidya	Teaching Learning Center	01/09/2018 to 31/08/2020
13.	Dr. Ashish Tiwari	Societal Development (NSS and Nirmaan)	01/09/2018 to 31/08/2020
14.	Prof. UdayanChanda	Timetable	01/09/2018 to 31/08/2020
15.	Dr. Jitendra Singh Rathore	Registration & Counseling	01/09/2018 to 31/08/2020

G. Mr. Ernest Samuel Ratnakumar J has been appointed as Registrar of the Institute with effect from 16/08/2018.

H. Prof. Navin Singh, Pilani Campus is appointed as Chief Warden with effect from 01/09/2018 for a period of two years.

I. HR Section has been created in Pilani Campus with effect from 12/09/2018 and headed by Mr. Arvind Soundarajan.

The names and designations of senior officers of Pilani campus are given in 'Annexure B1 -13'.

## B1.2 ADMISSIONS

The number of students admitted in each of the semester is given below.

	Integrated First Degree Programmes	Higher Degree Programmes	Doctoral Programmes (PhD)	Total
Second Semester 2017-2018	–	–	50(21)	50(21)
First Semester 2018-2019	1047(142)	347(99)	54(22)	1448(263)

The programme-wise details are given in 'Annexure B1-1'.

## B1.3 DUAL DEGREES AND TRANSFERS

### (a) Dual Degree

During the Academic year 2018-2019, 342 students were permitted to work concurrently for two first degrees under Dual Degree scheme. See 'Annexure B1-2' for details.

### (b) Transfers within same tier

During the Year 2018, a total no of 15 students were permitted to transfer from the initial allotment of First Degree programme to the other programmes of First Degree.

### (c) Vertical Transfers

During the year 2018, 9 students were permitted to transfer from First Degree to Higher degree and 1 students were permitted to transfer from Higher Degree to Ph.D. Programme at Pilani Campus.

### B1.3 (a) Minor Programme

During the Academic year 2018-19, 122 students were admitted in Minor Programme, out of them 107 in Finance, 13 in Physics and 2 Film and Media.

## B1.4 ACADEMIC CALENDAR

The Academic year of the Institute is divided into two semesters and a summer term.

	Starting Date	Ending Date	Number of instruction days(excluding the examination days)
Second Semester 2017 -2018	06-1-2018	14-5-2018	86
First Semester 2018 -2019	1-8-2018	14-12-2018	91
Summer Term 2017 -2018	22-5-2018	14-7-2018	44

## B1.5 COURSE OFFERED

The number of courses offered during the year 2018 is as follows:

	Number of Courses offered
II Semester 2017 -2018	417
I Semester 2018 -2019	416
Summer Term 2017 -2018	24

The list of new courses introduced during 2018 are given in 'Annexure B1 -7'.

Project -oriented Courses.

During this year a large number of students worked on time-bound projects of various types. The information about the projects done and the names of the students who worked on the projects and the names of the instructors are given in Annexure 'B1-6'.

## B1.6 REGISTRATION OF STUDENTS

The registration processes for both the semesters was completed on the first day of each semester.

	Number of students registered
Second Semester 2017-2018	4891
First Semester 2018-2019	5228
Summer Term 2017-2018	934

Details of Registration of students for the First Semester 2018-2019 are given in 'Annexure B1-3'.

## B1.7 ACADEMIC COUNSELLING BOARD (ACB)

During the year, the Academic Counseling Board estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of On-campus students under its purview during the year is given below:

		II Semester 2017-2018	I Semester 2018-2019
1.	Total number of students under the purview of ACB at the beginning of the semester	272	253
2.	No. of students declared out of its purview at the end of the semester	214	135
3.	No. of students who left the Institute during the semester	0	0
4.	No. of new students who came under the purview of ACB at the end of the semester	195	197
5.	Total No. of students under the purview of ACB during the next semester	253	315

## B1.8 AWARD OF DEGREES AND MEDALS

## a. Award of Degrees

On Campus Programmes

During the year 77 degrees were awarded in the Board of Governors meeting held on 16-3-2018 (82<sup>nd</sup> Award) and 1307 degrees were awarded on 20-7-2018 (83<sup>rd</sup> Award), through a Circulatory Resolution. Statistical details of these degrees are given in 'Annexure B1 -4'.

## b. Award of Medals

For Academic Year 2017-2018

The list of students who were awarded various medals, for the students graduated at the end of First Semester, Second Semester and Summer Term of the academic year 2017-2018 in the following table:

S.N.	ID.No.	NAME	SEX	CGPA OBTAINED	POSITION OBTAINED	TYPE OF MEDAL TO BE AWARDED
Integrated First Degree Programmes (No. of students: 840)						
1.	2014A1PS0729P	MURTAZA HAIDARY	M	9.93	FIRST	GOLD
2.	2014A7PS0081P	ANIRUDH KUMAR BANSAL	M	9.88	SECOND	SILVER
3.	2014A3TS0219P	SIDDHARTH K	M	9.81	THIRD	BRONZE

## B1.9 CAMPUS INTERVIEWS AND PLACEMENT

Number of companies which conducted campus interviews	193
Number of interviews	1659
Number of offers made	893

The statistics (discipline-wise) and the list of organizations which conducted campus interviews during the year are given in **Annexure 'B1-5'**.

## Employment of Graduates during the Year 2018

Programme	Number graduated	Employed	Unemployed	Not Registered for Placements / Deregistered from Placements
<b>On-Campus Programmes</b>				
<b>B.E.(Hons.)</b>				
Chemical	68	56	3	9
Civil	62	45	6	11
Computer Science	123	116	0	6
EEE	99	87	3	9
Electronics & Instrumentation	62	56	0	6
Mechanical	84	59	7	18
Manufacturing	37	31	3	3
B.Pharm	39	31	3	5
<b>M.Sc.(Hons.)</b>				
Bio. Sciences	48	39	4	5
Chemistry	44	35	4	5
Economics	65	51	6	8
Mathematics	50	46	1	3
Physics	52	35	2	15
<b>M.Sc.(Tech.)</b>				
General Studies	19	5	5	9
<b>M.E.</b>				
Biotechnology	11	5	6	0
Chemical	13	3	9	1
Civil (Spl. in Structural Engg.)	10	8	0	2
Civil (Spl. in Transportation Engg.)	11	9	0	2
Civil (Spl. in Infrastructure Engg. and Management)	7	4	1	2
Communication Engg.	11	9	2	0
Computer Science	21	18	2	1
Design Engg.	07	5	2	0
Embedded System	10	10	0	0
Manufacturing Systems Engg.	10	8	2	0
Mechanical	15	13	2	0
Microelectronics	11	10	1	0
Software Systems	24	23	1	0
M.Pharm	6	4	2	0
M.Pharm. (Spl. In Pharmaceutics)	10	6	4	0
M.Pharm. (Spl. Pharmaceutical Chemistry)	6	2	3	1
MBA	62	53	8	1
Total	1097	882	92	122

## B1.10. DEPARTMENT-WISE REPORT

In the following pages, a brief summary of the main activities and achievements of different departments of the campus are highlighted.

### B1.10.1 Department: Biological Sciences

Number of faculty members (as on 31<sup>st</sup> December 2018)

Senior Professors, Professors	04
Associate Professors	06
Assistant Professors	07

Head of the Department: Prof. Prabhat Nath Jha  
 Contact details : prabhatjha@pilani.bits-pilani.ac.in  
 Number of PhD Scholars: 31  
 Number of RA: 02 (DST Young Scientist)

Ph.D. Thesis Submitted during the year: 2018

- Vandana (2012PHXF415P), Transformation and Expression of a Na<sup>+</sup> - Dependent High Affinity Bicarbonate Transporter SbtA to *Nicotiana* Chloroplasts.
- Parva Kumar Sharma (2011PHXP407P), *In-Silico* Functional Annotation of Unannotated Protein-coding Gene of *Arthrospira platensis* NIES-39 Genome and Investigation of Proteins Involved in Nitrogen Assimilation Pathway
- Subhra Das (2013PHXP410P), analyzing the role of TNF- $\alpha$  and Autophagy in regulation of TGF- $\beta$  induced Epithelial to Mesenchymal Transition in Cancer cells.
- Tania Pal Chaudhury (2013PHXP426) Title: The identification and characterization of mosquito peroxidase(s) and their role in orchestration of mosquito immunity against various pathogens
- Parik Kakani (2012PHXF431P), The Role of Anaphelae Heme Peroxidases in Mosquito Immunity against Blood-Borne Antigens and Divergent Expression of anapheline Lineage-Specific Duplicated Genes.

#### 6. A. SPONSORED RESEARCH ACTIVITIES:

##### (i) Ongoing projects:

- (PI: Rajdeep Chowdhury, Co-PI: Sudeshna Mukherjee) "Mutant-p53 gain-of-function: its role in regulating lncRNA expression and associated chemoresistance in human cancer cells" Funding Agency: DBT, Govt. of India, New Delhi; Sanctioned Amount: 25 Lakhs; Duration: 3 Years (2015-2018).
- (Co-PI: Sandhya Marathe): "Modeling immune response to Salmonella during typhoid". Funding Agency: DST-SERB, Govt. of India, New Delhi, Sanctioned amount 37.73 lakhs, Duration: 4 years (2017-2020)
- (PI: Dr. Uma S. Dubey): "Investigating the role of Aryl hydrocarbon receptors in mediating the anticancer properties associated to camel milk." and DST Ref. No. - DST- Rajasthan, Sanctioned amount 7.432 lakhs, Duration: 3 years (2016-2019)
- (PI: Dr S K Verma, Co-PI: Dr Jitendra Panwar, Co-PI: Dr Suresh Gupta, Co-PI: Prof A P Singh: "Integrated Approach for the Efficient Removal and Recovery of Zinc from the Viscose Fiber Process", Sanctioned amount 49.42 Lacs, Duration: 3 years (2018-2020)
- (PI: Dr. Syamantak Majumder): "Understanding the role of long non coding RNA in glomerular endothelial cell dysfunction during diabetic nephropathy", Sanctioned amount 8.5 Lacs, Duration: 3 years (2018-2020).
- (Co-PI: Dr. Rajdeep Chowdhury): "Evaluation of anti-tumor efficacy and pharmacokinetics of polymeric nanoparticle formulation targeted to cancer stem cells", Sanctioned amount 34.00 Lacs, Duration: 3 years (2016-2019).
- (Co-PI: Dr. Rajdeep Chowdhury): "Activity targeted nano-formulations for co-delivery of a taxane and anti-oxidant molecule, alpha lipoic acid for treating breast cancer", Sanctioned amount 00.00 Lacs, Duration: 4 years (2018-2021).
- (PI: Dr. Sandhya Marathe): "Investigate role of CRISPR-Cas system in pathogenesis of *Salmonella enterica* serovar Typhimurium. CRG - BITS Pilani", Sanctioned amount 7.5 lacs, Duration: 3 years (2018-2020).



9. (PI: Dr. Sandhya Marathe): "To investigate the mechanism of CRISPR-Cas regulated biofilm formation in *Salmonella enterica* serovar Typhimurium", Sanctioned amount 43.71 lacs, Duration: 4 years (2018-2021).
  10. (PI: Dr. Sudeshna Mukhejee): "Analysis of mitochondrial dynamicity (fusion/fission and mitophagy) post drug exposure in human glioblastoma cells and understanding its correlation with drug resistance", Sanctioned amount 27.00 lacs, Duration: 4 years (2018-2021).
  11. (PI: Prof. Rajdeep Chowdhury): "Understanding hyperglycemia induced alterations in non-coding RNA expression pattern and post-translational histone protein modifications contributing to drug resistance and progression of pancreatic cancer", Sanctioned amount 40.00 lacs, Duration: 4 years (2018-2021).
- (ii) Projects sanctioned during the year 2018: NIL
- (iii) Projects completed : NIL
- (iv) Project proposals approved during the year 2018:
1. (PI: Dr. Syamantak Majumder) "Epigenetics of Endothelial Dysfunction during Cardiovascular Disease". SERB-ECRA; Rs. 41.41 lakhs; Duration: 3 years

#### B. PUBLICATIONS:

The faculty members of the Department published a total of 26 papers in various International/ National refereed journals during the year and has one patent. The list is as follows:

1. Jha, P, Panwar, J, Jha, PN (2018). Mechanistic insights on plant root colonization by bacterial endophytes: a symbiotic relationship for sustainable agriculture. *Environmental Sustainability*, 1:25-38
2. Nehra P., Khungar B., Singh RP., Sivasubramanian SC., Jha PN., Saini V. (2018). Synthesis, characterization and applications of imidazolium ionic liquid-tagged zinc(II) complex. *Inorganica Chimica Acta*. 478: 260-267.
3. Reddy POV, Hriday M., Kumar N., Khan S., Jha PN., Shah K., Kumar D. (2018). Synthesis and investigations into the anticancer and antibacterial activity studies of  $\beta$ -carboline chalcones and their bromide salts. *Bioorganic & Medicinal Chemistry Letters*, 28:1278-1282.
4. Agarwal DS., Singh RP. Lohitesh K, Jha PN, Chowdhury R, Sakhuja R. 2018. Synthesis and evaluation of bile acid amides of  $\alpha$ -cyanostilbenes as anticancer agents. *Molecular Diversity*. doi: 10.1007/s11030-017-9797-9
5. Singh RP, Jha PN (2018). Effect of inoculation of zinc-resistant bacterium *Enterobacter ludwigii* CDP-14 on growth, biochemical parameters and zinc uptake in wheat (*Triticum aestivum* L.) plant. *Ecological Engineering*, 116: 163–173
6. Zarna Pala, Vishal Saxena, Gagandeep Singh Saggi, Shilpi Garg\* (2018). Recent advances in the [Fe-S] Cluster Biogenesis (SUF) pathway functional in the apicoplast of *Plasmodium*. *Trends in Parasitology*. 34(9):800-809. doi: 10.1016/j.pt.2018.05.010. Epub 2018 Jul 28 (\*corresponding authors)
7. Gagandeep Singh Saggi, Shilpi Garg\*, Zarna Pala, Sanjay Kochar, Vishal Saxena\* (2018). Deciphering the role of IspD (2-C-methyl-D-erythritol 4-phosphate cytidyltransferase) enzyme as a potential therapeutic drug target against *Plasmodium vivax*. *Gene*. 30;675:240-253. doi: 10.1016/j.gene.2018.06.084. Epub 2018 Jun 26 (\*corresponding authors)
8. Dash S, Prasad M.S., Balaji R, Chowdhury R\* and Mukherjee S\* (\*corresponding authors). TGF- $\beta$ 2-induced EMT is dampened by inhibition of autophagy and TNF- $\alpha$  treatment. *Oncotarget*; 2018; 9:6433-6449.
9. Lohitesh K, Saini H, Srivastava A, Mukherjee S, Roy A and Chowdhury R\*. Autophagy inhibition potentiates SAHA mediated apoptosis in glioblastoma cells by accumulation of damaged mitochondria. *Oncology Reports*; 2018 (Accepted).
10. Pasha SS#, Fageria L#, Climent C, Rath PN, Alemany P, Chowdhury R\*, Roy A\* and Laskar IR\* (\*corresponding authors). Evaluation of a Novel Platinum(II)Based AIE Compound-Encapsulated Mesoporous Silica Nanoparticles for Cancer Theranostic Application. *Dalton Transactions*; 2018 (Accepted). DOI: 10.1039/C7DT04232A.
11. Lohitesh K\*, Chowdhury R\*, Mukherjee S (\*equal contributors). Resistance a major hindrance to chemotherapy in Hepatocellular Carcinoma: An insight". *Cancer Cell International*; 2018 (Accepted).
12. Kachawal V, Isukapalli SVK, Fageria L, Chaudhary J, Roy RK, Chowdhury R\* and Laskar IR\* (\*corresponding authors). Exploring the Hidden Potential of Benzothiazole Based Schiff base "AIE and ES IPT" active for pH Sensing, Intracellular Imaging and Ultrasensitive & Selective detection of Aluminium (Al<sup>3+</sup>). *Analyst*; 2018 (Accepted).
13. Marathe S A. (2018) Nesting Sites of Birds and Spiders in the Semi-Arid Zone of Rajasthan, India, *Current Science*, 114: 1821- 1824

14. Asati V and Sharma PK (2018) Using thin-layer chromatography for the metabolic characterization of an isoflavone glycoside-specific  $\beta$ -glucosidase in *Cyamopsis tetragonoloba*. *Journal of Planar Chromatography - Modern TLC*, Vol. 31 (2), pp. 169-172.
  15. Pareek, V., Bhargava, A., Vishalakshi, Gupta, R., Jain, N. and Panwar, J. 2018. Formation and characterization of protein corona around nanoparticles: A review. *Journal of Nanoscience and Nanotechnology*, 18: 6653-6670.
  16. Pareek, V., Gupta, R. and Panwar, J. 2018. Do physico-chemical properties decide the bactericidal impact of silver species? *Materials Science and Engineering C*, 90: 739-749.
  17. Bhargava, A., Pareek, V., Roy Choudhury, S., Panwar, J. and Karmakar, S. 2018. Superior bactericidal efficacy of fucose functionalized silver nanoparticles against *Pseudomonas aeruginosa* PAO1 and prevention of its colonization on urinary catheters. *ACS Applied Materials & Interfaces*, 10: 29325-29337.
  18. Ashok P, Chander S, Smith TK, Singh RP, Jha PN, Sankaranarayananana M (2018). Biological evaluation and structure activity relationship of 9-methyl-1-phenyl-9H-pyrido[3,4-b]indole derivatives as anti-leishmanial agents. *Bioorganic Chemistry* 84: 98–105.
  19. Niveditha D, Mukherjee S, Majumder S, Chowdhury R\* and Chowdhury S\* (\*corresponding authors). A global transcriptomic pipeline decoding core network of genes involved in stages leading to acquisition of drug-resistance to cisplatin in osteosarcoma cells. *Bioinformatics*; 2018 (Accepted).
  20. Nandwana NK, Singh RP, Patel OPS., Dhiman S, Saini HK, Jha PN, Kumar A (2018). Design and Synthesis of Imidazo/Benzimidazo[1,2-c]quinazoline Derivatives and Evaluation of Their Antimicrobial Activity. *ACS Omega* 2018, 3, 16338–16346
  21. Runthala A and Chowdhury S. Refined template selection and combination algorithm significantly improves template based modelling accuracy. *Journal of Bioinformatics and Computational Biology*, 2018. (Accepted).
  22. Roth, A., Adapa, S.R., Zhang, M., Liao, X., Saxena, V., Goffe, R., Li, S., Ubalee, R., Saggi, G.S., Pala, Z.R. Garg, S., Davidson, S., Jiang, R.H.Y., Adams, J.H. (2018). Unraveling the *Plasmodium vivax* sporozoite transcriptional journey from mosquito vector to human host. *Nature Scientific Reports*. 8, 12183: 1 - 29. <https://doi.org/10.1038/s41598-018-30713-1>
  23. Kunjiappan S., Panneerselvam T., Somasundaram B., Sankaranarayanan M., Chowdhury R., Chowdhury A., Bhattacharjee C. (2018). Design, in silico modeling, biodistribution study of rutin and quercetin loaded stable human hair keratin nanoparticles intended for anticancer drug delivery.
  24. Varkey, Sunil; Jha, Prameela; Mazumder, Sonal. (2018). Synthesis and Characterization of Microencapsulated Bacteria for Application in Enhanced Oil Recovery Technique.
  25. Senthil Nagappan., Rajendra Kumar R., Rupesh Balaji J., Shachi Singh., Sanjay Kumar Verma. (2018). Direct saponification of wet microalgae by methanolic potassium hydroxide using acetone as co-solvent.
  26. Singh R.P., Jha P.N. (2018). Priming with ACC-utilizing bacterium attenuated copper toxicity, improved oxidative stress tolerance, and increased phytoextraction capacity in wheat.
  27. Isha Pandey., Ramandeep Kaur., Amit Kumar Subudhi., P.a Boopathi., Raja C. Mugasimangalam., Sudha N. Rao., Mohammed Aiyaz., Sanjay Kochar., Dhanpat Kochar. (2018). A tiling array-based comparative genomic hybridization approach to predict copy number variations between *Plasmodium falciparum* field isolates from the Indian Sub-continent.
  28. Brijmohan A.S., Batchu S.N., Majumder S., Alghamdi T.A., Thieme K., McGaugh S., Liu Y., Advani S.L., Bowskill B.B., Kabir M.G., Geldenhuys L., Siddiqi F.S., Advani A. (2018). HDAC6 inhibition promotes transcription factor EB activation and is protective in experimental kidney disease.
  29. Majumder S., Thieme K., Batchu S.N., Alghamdi T.A., Bowskill B.B., Golam Kabir M., Liu Y., Advani S.L., White K.E., Geldenhuys L., Tennankore K.K., Poyah P., Siddiqi F.S., Advani A. (2018). Shifts in podocyte histone H3K27me3 regulate mouse and human glomerular disease.
  30. Dubey P., Dubey U.S., Dubey B. (2018). Modeling the role of acquired immune response and antiretroviral therapy in the dynamics of HIV infection.
  31. Nagappan S., Kumar Verma S. (2018). Co-production of biodiesel and alpha-linolenic acid (omega-3 fatty acid) from microalgae, *Desmodesmus* sp. MCC34.
- C. CONFERENCES ATTENDED/ PAPERS PRESENTED:
1. Kannan M, Marathe S, Shukla P and Sharma PK (2018). Avoiding Technology Overuse in Science Education for Holistic Well-being of School and College Students. International Conference on Spirituality, Science and Civilization, IIT Roorkee, Feb 26-27.
  2. Tiwari S, Marathe S (2018). Historical value system, culture and media for bird conservation. International Conference on Media, Culture and Ethics (MCE 2018) February 9-10, BITS-Pilani, Pilani campus.

3. Misra T, Tare M, Jha PN (2018). Characterization of biofilm formation of *Enterobacter Cloacae* SBP-8 under various physiological conditions. International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), Nov 1-3. BITS Pilani, Pilani Campus
  4. Tiwari, S. and Marathe, S (2018) Prioritizing Indian states and union territories for conservation based on index values derived using edge rank. International Biodiversity Congress (IBC 2018), 4th- 6th October Forest Research Institute, Dehradun, India
  5. Rai A, Sircar I, NARwal S, Tare M (2018). Testing neuroprotective potentials of an Ayurvedic compound for repair of mitochondrial dysfunction in *Drosophila melanogaster* model of Parkinson's Disease. International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), Nov 1-3. BITS Pilani, Pilani Campus.
  6. Bansal G, Gupta M, Marathe S A (2018). Tolerance of extra-pair copulation/offspring by *Cyanistes caeruleus* (blue tits) explained using Hamilton's kin selection theory. International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), Nov 1-3. BITS Pilani, Pilani Campus.
  7. Khan S, Marathe S A, Jha P N (2018) Invitro and Invivo model systems for evaluating the pathogenic potential of PGPR strain *Enterobacter cloacae* SBP-8. International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), Nov 1-3. BITS Pilani, Pilani Campus
  8. Sharma N, Lakshmi P R, Marathe S A (2018). Regulation of biofilm in *Salmonella enterica* subsp. *enterica* serovar Typhimurium by CRISPR-Cas system. International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), Nov 1-3. BITS Pilani, Pilani Campus
  9. Parva Sharma and Shibasish Chowdhury (2018). Evolutionary process of Glutamate Synthase Protein Family within the cyanobacteria: An In-silico Analysis. International conference on Bioinformatics and Systems Biology, 26-28 October. IIIT, Allahabad.
  10. Pareek, V., Gupta, R., Khan, M.A., Bhargava, A., Vishalakshi, Panwar, J. 2018. Evaluation of mechanism behind the antibacterial action of silver ions. In: International Conference on Microbial, Plant and Animal Genome, March 29-31, 2018, Modi University of Science and Technology, Lakshamgarh, p. 35.
  11. Pareek., V., Gupta, R., Bhargava, A., Bhanot, V. and Panwar, J. 2018. Gene expression profiling of *Escherichia coli* K12 to unveil the silver resistance machinery. In: 6th Central European Symposium on Antimicrobials and Antimicrobial Resistance (CESAR-2018), Croatian Microbiology Society, September 19-22, 2018, University of Zegreb, Zagreb, Croatia. (Best Poster Presentation Award).
  12. Sharma H, Dash S, Niveditha D, Mukherjee S, and Chowdhury S (2018) Global transcriptomic alterations decoding core network of genes associated with epithelial to mesenchymal transition & autophagy in cytokine treated liver cancer cells. International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), Nov 1-3. BITS Pilani, Pilani Campus
  13. Nidhi K. Bub, Aishwarya Singh, Anubhuti Mishra, Vishal Saxena, Shilpi Garg. "Molecular Characterization of [Fe-S] Cluster Pathways from Plasmodium" Presented at "International Conference on Life Science Research & its Interface with Engineering and Allied Sciences"(LSRIEAS-2018), at BITS-Pilani, Pilani Campus, Rajasthan, India (3rd Best Poster Award).
  14. Shilpi Garg, Vishal Saxena. " Apicoplast: A promising Drug Target" A talk at "International Conference on Life Science Research & its Interface with Engineering and Allied Sciences"(LSRIEAS-2018), at BITS-Pilani, Pilani Campus, Rajasthan, India
  15. Bhargava, A., Panwar, J. and Karmakar, S. 2018. A systematic approach towards identification of a single protein responsible for synthesis and stabilization of silver nanoparticles. In: XIV International Conference on Nanostructured Materials (Nano-2018), June 24-29, 2018, City University of Hong Kong, Hong Kong.
- D. BOOKS PUBLISHED/EDITED /BOOK CHAPTERS DURING THE YEAR: NIL
- E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED:
1. An International Conference on "Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS-2018)" was organized during November 1-3, 2018.
- F. INVITED TALKS GIVEN BY BITS FACULTY
1. Prof. A. K. Das delivered an invited talk in the International Symposium on Malaria Biology on 29th National Congress of Parasitology on Basic and Applied Aspects held at University of Hyderabad on 1-3rd November, 2018.
  2. Prof. A. K. Das delivered an invited talk in LSRIEAS BITS Pilani Pilani Campus November, 1-3 2018.
  3. Prof A.K.Das delivered an invited talk in CRISPR/Cas9 practical workshop in Shiv Nadar University from May 24 to 28, 2018.

## G. INVITED TALKS ARRANGED IN THE DEPARTMENT

1. (15 Jan) Dr. Alan M Punnoose, Assistant Professor, Centre for Regenerative Medicine and Stem Cell Research Central Research Facility, Sri Ramachandra Medical College and Research Institute, Porur, Chennai delivered a talk on 'Tissue Engineering in the Cardiovascular System - "Mending a broken heart"
2. (31 July) Dr. Indrashis Bhattacharya, Assistant Professor, Garhwal University delivered a Lecture titled "Pubertal Orchestration of Hormones and Testis: Lessons from Rodents to Primates" at Dept. of Biological Sciences, BITS, Pilani, Rajasthan on 31st July, 2018
3. (25th Aug) Dr. Arpana Jha from Indian Institute of Science & Education Research, Mohali delivered a guest lecture on 'A suite of enzymes for the treatment of plant-derived biomass and generation of value-added products' at Dept. of Biological Sciences, BITS, Pilani, Rajasthan on 25th August, 2018.
4. (25th Aug) Ms. Zara Bukhari and Mr. Debabrat Sabat (BITS Alumini) working at Biocon Pvt. Ltd., Bangalore delivered an online talk on 'Career in Biotechnology Industry' and interacted with ME, Biotechnology students for career guidance on 25th August, 2018.
5. (31st August-3rd September) Prof. Suresh Arya, NHI, USA, Delivered a series of lectures on Synthetic Biology.
6. (31st October, 2018) Prof. John H. Adams, USF, Tampa, USA delivered an Invited talk on "Whole genome forward genetic screens of Plasmodium falciparum identifies and prioritizes antimalarial drug targets"
7. (2-3 November) Dr. Sandeep Gaudana Project Lead, Synthetic Biology at Reliance Industries Limited interacted with ME Biotechnology, 2nd year students on 2-3 November, 2018
8. (16th November, 2018) Prof. Raghav Rao Malla, NIH, USA delivered a talk on Global Challenges and Novel Technologies for Infectious Diseases
9. (16th November, 2018) Dr. Shailja Singh, JNU, New Delhi delivered a talk on Cellular and molecular basis of the host-pathogen interactions: Unfolding new definitions towards therapeutic intervention strategies.
10. (26th November) Nadira Karunaweera, Senior Professor and Chair and Visiting Scientist Harvard School of Public Health, Department of Parasitology, Faculty of Medicine, University of Colombo visited the department and delivered a talk on 'Vector borne parasitic disease trends in Sri Lanka : successes and challenges.

## H. AWARDS AND RECOGNITIONS WON BY FACULTY

1. Dr. Shilpi Garg was awarded BITS Pilani University Immersion Award 2018 for visiting a university abroad. (University of Melbourne)

## I. AWARDS AND RECOGNITIONS WON BY STUDENTS

- I. Feb 2018: Surbhit Johri, a FD student of Biological sciences achieved following titles:
  - 1- Nexus graduate from US Embassy and University of Texas at Austin.
  - 2- CEO & Co-founder GnomikX India Private limited.
  - 3- Winner- Empresario 2018- Business Model Competition, IIT Kharagpur
  - 4- Represented India at International Business Model Competition, Brigham Young University Provo, Utah, USA.
  - 5- Winner- B-plan competition, IIIT Allahabad
  - 6- Winner- Innopreneuers, Lemon Ideas, Nagpur
  - 7- Awarded the Entrepreneurship grant from Rajasthan government.
  - 8- Invited for talk at NSIT, Delhi.
  - 9- Invited speaker at DITE, Delhi University.
  - 10- Represented GnomikX at Maharashtra startup week, Mumbai and Entrepreneur Congress, New Delhi.
  - 11- Awarded the long term incubation at the American Centre, New Delhi by the US Department of State.
  - 12- nominated for the 'Top 50 Healthcare Companies' award to be conferred at Smart Health Conference - Dubai 2018.
- II. Sayan Basu and Bishakha Bamroo, M.E., Biotechnology students, have been selected to participate in summer school on Food security at Tel Aviv University. They have been given full waiver and accomodation to attend the school.
- III. Rinki Gupta, M.E. student ranked 62 in CSIR-JRF test.
- IV. Pujitha Laxmi, M.E. student select fro Ph.D. study at University of Edinburgh, Whe was also selected for Ph.D. in Cambridge University

- V. Dhulika Ravinuthala, a M.E. Biotechnology student, received the "Bajpai saha" award (cash award Rs.2000/-) for the best student paper presentation International conference on BioMaterials, BioEngineering and BioTheranostics given by the "Society for Biomaterials and Artificial organs (India) in VIT university, Vellore.
- VI. Anubhuti Mishra, a fifth year FD student, received full scholarship to attend 'Grace Hopper Conference', a gathering of women from any science related discipline.
- VII. Vikram Pareek, Ph.D. student of the department, received EMBO (European Molecular Biology Organization) short term fellowship to work in the field of Food Microbiology at University College Dublin, Ireland for 3 months
- VIII. Vikram Pareek, and Shraddha Mishra (Ph.D. students) have been awarded CSIR-SRF
- IX. Vikas Kumar, Ph.D. student was awarded ICMR-SRF.
- X. Jayashree V P and Aarti Jha, ME, Biotechnology 2nd Year students have been selected to participate in the Novartis Biotechnology Leadership Camp (BioCamp) taking place in Hyderabad from September 23 to 26, 2018.
- XI. Vikram Pareek, a Ph.D. student, have been awarded with the ICGER grant (100 % registration fee and accommodation) and DBT travel grant to attend the conference entitled "6th Central European Symposium on Antimicrobials and Antimicrobial Resistance (CESAR-2018)" held in Croatia from 19th to 22nd September, 2018. Topic of my poster was "Gene expression profiling of Escherichia coli K12 to unveil the silver resistance machinery".
- XII. Vikram Pareek, a Ph.D. student, awarded with 1st Best poster presentation award by the American Society for Microbiology and conference organization.
- XIII. Nandita Sharma, a Ph.D. student, received 2nd Best Poster Award in International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), Nov 1-3. BITS Pilani, Pilani Campus

#### J. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION

1. Prof. Vishal Saxena has ongoing collaboration with Prof. John H. Adams, Department of Global Health, College of Public Health, University of South Florida (USF), Tampa, Florida
2. Prof. Shilpi Garg visited under University Immersion scheme to Prof. Stuart Ralph, Bio21, University of Melbourne, Melbourne, Australia.
3. Dr. Syamantak Majumder has written joined research proposals and in the process of establishing collaboration with (i) Andrew Advani, St. Michael's Hospital, University of Toronto, Canada, (ii) Karina Thieme, St. Paulo University, Brazil, (iii) Jinjian Pang, University of Rochester, USA, (iv) Geun-Young Kim, Korea National Institute of Health, South Korea
4. Dr. Meghana Tare is in process of collaboration with Prof. Amit Singh, Dayton University, Ohio, USA.
5. Dr. Pankaj Sharma, and Dr. Manoj Kannan are members of TLC of the institute. They have been participating in teaching related conferences.

#### K. SIGNIFICANT NEW EQUIPMENTS/ EXPERIMENTAL FACILITY ADDED DURING THE YEAR

1. Vis-Spectrophotometer (02 Nos), UV-Vis (01 Nos), BOD Incubator (01 Nos), Laminar Air Flow (03 Nos), Autoclave (02 Nos), -70 Deep Fridges (02 Nos), Liquid Nitrogen Cryo Tank (03 Nos), Water Bath (03 Nos), Water Bath Sonicator (01 Nos), Inverted Microscope (01 Nos), Gel Documentation System (01 Nos), Microscope (04 Nos), Orbital Shaker (01 Nos), Light Source for Oxigraph plus & light meter with sensor (01 Nos), pH meter (03 Nos), Semi Dry blot Apparatus (01 Nos), Phase contrast Microscope (01 Nos), Refrigerated Centrifuge (01 Nos), Hot Plate Magnetic Stirrer (01 Nos), Refrigerator (03 Nos), -20 Deep Fridge (02 Nos), Mini Centrifuge (02 Nos), Electrophoresis System (01 Nos), Vortexer (01 Nos).

#### L. DEPARTMENTAL ASSOCIATION/ CLUB ACTIVITIES

##### Biological Society

The Biological Society in its traditional way executed APOGEE-2015, showing the recent development in modern biology through excellent working and non-working models. Senior members of the Biological Society have also been involved in orientation for freshly joined students and discussions regarding the future scope of Biology and Biotechnology. Other traditional activities such as welcome for new members, B1 alfresco and farewell for graduating students were also organized.

#### M. STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS

- a. Success of students at national level tests (various PG/Ph.D. entrance tests and tests for JRF etc)

## B1.10.2 Department: Civil Engineering

Number of faculty members (as on 31 December 2018)

Professors & Senior Professors	04
Associate Professors	05
Assistant Professors	10
Lecturers	--
Visiting Faculty	01

Head of the Department : Prof. Anshuman

Contact details : anshu@pilani.bits-pilani.ac.in

Number of Ph.D. Scholars : 21

Ph.D. Thesis Submitted during the year : 02

## A. SPONSORED RESEARCH ACTIVITIES

(i) Projects Sanctioned during the year 2018

S.No.	Project Title	Principal / Co-Principal Investigator	Sponsored Organization	Amount Sanctioned (Rs. In Lakhs)
1.	Fluoride remediation field study	Rajiv Gupta	University of Virginia, USA	5.00
2.	Structural Health Assessment and Rehabilitation Framework based on Cyber Physical System	Kota Soloman Raju(CEERI) S.B. Singh K.K. Gupta	DST, New Delhi	70.0
3.	Integrated approach for the efficient removal and recovery of heavy metal catalyst (Zinc) used in viscous fiber industries	S. K. Verma (PI) Suresh Gupta (Co-PI) Jitendra Panwar (Co-PI) Ajit Pratap Singh (Co-PI)	Aditya Birla Science and Technology Centre (ABSTC) Mumbai	49.42
4.	Waste Management of Generated Sludge from Indian Steel and Steel Related Plants: A Sustainable Business Model	Srikanta Routroy(Mech.) Prof. Anupam Singhal & Prof. Dipendu Bhunia	Ministry of Steel, GoI, New Delhi	38.04
5	Seismic Response of Tunnels Considering Topographic and Site Effects	PI Nishant Roy Co-Pi: Ravi Kant Mittal	BITS Research Initiation Grant	2.0
6.	Post-buckling analysis of CNT-Reinforced composite plates under different types of in-plane mechanical loads.	Rajesh Kumar	Research Initiation Grant BITS Pilani	2.0
7.	A feasibility study on utilizing locally available fly ash to produce geopolymers for structural fire resistance applications	Mukund Lahoti	BITS Research Initiation Grant	2.0

## (ii) Ongoing projects (Sanctioned Prior to 2018):

S.No.	Project Title	Principal / Co-Principal Investigator	Agency	Amount Sanctioned (Rs. in Lakhs)
1.	Impact of PMGSY Roads on Accessibility in Rural Areas	A. K. Sarkar Ajit Pratap Singh	NRRDA, Ministry of Rural Development, Gov. of India	22.63
2.	Conjunctive use of rainwater and Groundwater to provide safe drinking water with intervention of Advanced Technology	Rajiv Gupta	DST, New Delhi	126.43(DST) 77.70 (Coll.)
3.	Costs and remediation of groundwater contamination in India	Rajiv Gupta	GPOD, USA	70
4.	Investigation of ductile characteristics of high strength concrete beams reinforced with high strength steel and basalt fibre under elevated temperature conditions	G. Muthukumar	Additional competitive Research Grant, BITS Pilani	9.75
5.	Seismic Vulnerability Assessment of Selected Heritage Structures in the State of Himachal Pradesh adopting output only Vibration Testing and Fragility Curves".	S. Madappa S.B. Singh	Ministry of Earth Science (MoES/P.O.(Seismo)1 (296)/2016)	34.506

## (iii) Projects completed in the year 2018

S.No.	Project Title	Principal/ Co-principal Investigator	Agency	Amount (Rs. in Lakhs)
1.	Development of Copper Bio-Leaching methodology/technique from tailing waste at Hindustan Copper Limited, Khetri	Anupam Singhal S.K. Verma (BIO)	Ministry of Mines, New Delhi	30.00
2.	Development of a framework to evaluate the operational feasibility of introducing battery-electric buses in India	P. K. Sahu	Collaborative project between BITS Pilani and Cardiff University, UK - Indian Principal Investigator: P. Sahu	£13,970
3.	Potential of Marble Slurry as a Mineral Admixture in Concrete	Anshuman Dipendu Bhunia	DST, New Delhi	28.38
4.	Dynamic buckling response of composite structures	S. N. Patel	CSIR, New Delhi	11.52
5.	Development of Low carbon ternary cement for durable and sustainable concrete	Bahurudeen A	Additional competitive Research Grant, BITS Pilani	9.25
6.	"Development of Geopolymer Mortar Using mustard husk Briquette Ash"	Vishakha V Sakhare	BITS Research Initiation Grant	2.0
7.	"Modeling Pedestrian Flow Using a Continuum Model"	Durgesh Vikram	BITS Research Initiation Grant	2.0
8.	"Experimental investigation on Structural Performance of RC Frame with Deep Beams under Gravity loading"	G. Muthukumar	BITS Research Initiation Grant	2.0
9.	Preparation of State of the Art Report (SOAR) on Fog vision system for roads	Rajiv Gupta	MORTH, NOIDA	4.35
10	Preparation of State of the Art Report (SOAR) on Development of innovative non-destructive techniques for determination of in-situ strength and permeability of concrete	Amit Goel	MORTH, NOIDA	2.50

## (iv) Ongoing Consultancy Projects:

S.No.	Project Title	Sponsored by	Sanction Amount (Rs. In Lakhs)	Investigators
1.	Road Safety Audit for Reengus-Sikar stretch of NH-11 (43.887 km)	National Highway Authority of India, New Delhi	18.11	A K Sarkar A. P. Singh Amit Goel
2.	Road safety audit of widening and strengthening of existing Bikaner-Phalodi section to four lane from Km 4+200 to Km 55+250 and two lane from Km 55+250 to Km 163+500 of NH-15 on BOT (Toll) basis in the state of Rajasthan	National Highway Authority of India, New Delhi	53.50	A. K. Sarkar A P Singh P K Sahu Durgesh Vikram R. Srinivas

## (iv) Consultancy projects completed this year:

Civil Engineering department has undertaken consultancy works worth more than Rs. 3.10 lakhs from government departments such PHED, PWD, WPIL, L&T etc. in various areas.

## B. PUBLICATIONS

Papers published by Faculty in Journals

S.No	Title of the paper	Authors	Name of Journal	Volume, Issue No, and Year
1.	Stability and Failure Characterization of Fiber Reinforced Pultruded Beams with different Stiffening Elements, Part 1: Experimental Investigation	S. B. Singh and Himanshu Chawla	Thin-Walled Structures	<a href="https://doi.org/10.1016/j.tws.2018.10.020">https://doi.org/10.1016/j.tws.2018.10.020</a> (In Press).
2.	Stability and Failure Characterization of Fiber Reinforced Pultruded Beams with different Stiffening Elements, Part 2: Analytical and Numerical studies	Himanshu Chawla and S. B. Singh	Thin-Walled Structures	<a href="https://doi.org/10.1016/j.tws.2018.10.024">https://doi.org/10.1016/j.tws.2018.10.024</a> (In Press)
3.	Composite Mechanics Based Design Approach for FRP Strengthened Walls,”	S. B. Singh, Aditi Chauhan and Pankaj Munjal	Journal of Structural Integrity and Maintenance (Taylor & Francis),	<a href="https://doi.org/10.1080/24705314.2018.1492670">https://doi.org/10.1080/24705314.2018.1492670</a>
4.	“Hybrid Effect of Functionally Graded Hybrid Composites of Glass-Carbon Fibers,”	S.B. Singh, V., H. Chawla, and B. Ranjitha	Mechanics of Advanced Materials and Structures,	(ID: 1432792 DOI: 10.1080/15376494.2018.1432792).
5.	“Mechanical strength and durability of mineral admixture concrete subjected to accelerated carbonation”	S. Hussain, D. Bhunia and S. B. Singh	Journal of Structural Integrity and Maintenance (Taylor & Francis)	Vol. 3, Issue No.1.,
6.	Holistic approach for quantification and identification of pollutant sources of a river basin by analyzing the open drains using an advanced multivariate clustering	Srinivas, R., Singh, A. P., Gupta, A. A. and Kumar, P.	Environmental Monitoring and Assessment	Vol. 190:720, 2018 DOI: 10.1007/s10661-018-7073-9
7.	Groundwater quality assessment in a hyper-arid region of Rajasthan, India	Bhakar, P. and Singh, A.P.	Natural Resources Research	DOI: 10.1007/s11053-018-9405-4
8.	Sustainable management of a river basin by integrating an improved fuzzy based hybridized SWOT model and geo-statistical weighted thematic overlay analysis	Srinivas, R., Singh, A. P., Dhadse, K., Garg, C., and Deshmukh, A.	Journal of Hydrology	Volume 563, August 2018, pp. 92-105, DOI: 10.1016/j.jhydrol.2018.05.059
9.	An integrated fuzzy based advanced eutrophication simulation model to develop best management scenarios for a river basin	Srinivas, R. and Singh, A. P.	Environmental Science and Pollution Research	Volume 25 Issue (9), 2018, pp. 9012-9039, DOI: 10.1007/s11356-018-1206-0
10.	Impact assessment of fly ash on ground water quality: An experimental study using batch leaching tests	Dandautiya, R., Singh, A. P. and Kundu S.	Waste Management & Research	Volume 36(7), 2018, pp. 624–634. DOI:10.11770734242X1877544



S.No	Title of the paper	Authors	Name of Journal	Volume, Issue No, and Year
11.	Development of a HEC-HMS based watershed modeling system for identification, allocation and optimization of reservoirs in a river basin	Srinivas, R. and Singh, A. P., Deshmukh, A.	Environmental Monitoring and Assessment	Volume 190: Issue 31 January 2018, DOI: 10.1007/s10661-017-6418-0
12.	Pavement Condition Assessment Using Soft Computing Techniques	Singh, A. P., Sharma, A., Mishra, R., Wagle, M. & Sarkar, A.K.	International Journal of Pavement Research and Technology	Volume 11, Issue (6), 2018, DOI: 10.1016/j.ijprt.2017.12.006
13.	Regulation of water resources systems using fuzzy logic: A case study of Amaravathi dam	Moorthi, P.V.P., Singh, A.P. & Agnivesh P.	Journal of Applied Water Science	Volume 8:132, 2018, DOI: 10.1007/s13201-018-0777-8
14.	Life Cycle Assessment of Groundwater Supply System in a Hyper-arid Region of India,	Bhakar, P. and Singh, A. P.	Procedia CIRP, Elsevier	Volume 69, 2018, pp 603–608. <a href="https://doi.org/10.1016/j.procir.2017.11.050">https://doi.org/10.1016/j.procir.2017.11.050</a>
15.	Optimization of Eccentrically Loaded Reinforced Concrete Isolated Footing	Rawat, S. and Mittal, R.K.	Practice Periodical on Structural Design and Construction, ASCE	Vol. 23, Issue 2, May 2018
16.	Multivariable Regression Model for Fox Depth Correction Factor	Mittal, R.K., Rawat, S. and Bansal, P.	Frontiers of Structural and Civil Engineering, Springer	Published online on 04 June 2018
17.	Application of Waste Tire Chips and Geogrid for Improving Load Carrying Capacity of Granular Soils	Mittal, R.K. and Gill, G.	Journal of Cleaner Production	Volume 200, November 2018
18.	Sustainable Application of Waste Tire-Chips in Shallow Footings Subjected to Eccentric Loading-An Experimental Study	Gill, G. and Mittal, R.K.	Construction and Building Materials	Published online 13 December 2018
19.	Dynamic Buckling of Laminated Composite Rectangular Plates Subjected to Uni-Axial Compression Loads	Vasanth Keshav and S.N.Patel	Journal of Structural Engineering, SERC, Chennai	Volume 45, Issue (1), 2018
20.	Scenario Planning for Water Resource Management in Semi Arid Zone	Rajiv Gupta and Gaurav Kumar	Physics and Chemistry of the Earth	June -2018

S.No	Title of the paper	Authors	Name of Journal	Volume, Issue No, and Year
21.	Towards a cyber-physical era: soft computing framework based multi-sensor array for water quality monitoring,	Jyotirmoy Bhardwaj, K. K. Gupta, Rajiv Gupta	Drinking Water Engineering Science	11, 9–17, 2018, Open Access Publications, Copernicus.org, Germany
22.	Evaluation of use of bottom ash in cement masonry and concrete regarding their mechanical properties,	Rajiv Gupta, Ayub Ahmed, Sasidhar Kumar Reddy Ithepalli	Advanced Materials Letters	Volume 9, Issue 8, 2018.
23.	Flexural Response of Skew-Curved Concrete Box-Girder Bridges	Gupta, Tanmay and Manoj Kumar	Engineering Structures	Vol. 163, May 2018, pp 358-372, DOI: <a href="https://doi.org/10.1016/j.engstruct.2018.02.063">https://doi.org/10.1016/j.engstruct.2018.02.063</a>
24.	Mechanical strength and durability of mineral admixture concrete subjected to accelerated carbonation	Shaik Hussain, Dipendu Bhunia, and S. B. Singh	Journal of Structural Integrity and Maintenance (Taylor & Francis)	Vol. 3, Issue 1, 2018
25.	Conceptual Modeling and Characterization of Puga Geothermal Reservoir, Ladakh, India.	Jha, Shibani. K., Puppala, H.,	Journal of Geothermics	Volume 72, doi.org/10.1016/j.geothermics.201

S.No	Title of the paper	Authors	Name of Journal	Volume, Issue No, and Year
				7.12.004 2018
26.	Identification of Prospective Significance Levels for Potential Geothermal Fields of India.	Puppala, H., Jha, Shibani. K.,	Journal of Renewable Energy	Volume 127, November 2018, pages 960-973. <a href="https://doi.org/10.1016/j.renene.2018.04.075">https://doi.org/10.1016/j.renene.2018.04.075</a> , 2018
27.	Modeling Urban Freight Production and Attraction: A Case Study of Seven Cities in Kerala, India	Pani, A., Sahu, P., Patil, G., and Sarkar, A.	Journal of Transport Policy	Vol. 69, 2018.
28.	Commuter travel cost estimation at different levels of crowding in suburban rail system	Sahu, P., Sharma, G., and Guharoy, A	Public Transport: Planning and Operation	Vol.10 Issue (3), 2018.
29.	Performance Comparison of Mode Choice Optimization Algorithm with Simulated Discrete Choice Algorithm	Roh, H-J., Sharma, S., Sahu, P., and Mehran, B.	Modeling and Simulation in Engineering	(DOI:10.1155/2018/8169036)
30.	Statistical Investigation of Truck Type Distribution on Cold Region Highways during Winter Months	Roh, H-J., Sahu, P., Sharma, S., and Mehran, B.	KSCE Journal of Civil Engineering	Vol. 22 Issue (4), 2018

## D. PAPERS PUBLISHED BY FACULTY IN CONFERENCES:

S.No	Title of Paper	Authors	Name of Conference	Venue & Date of conference
1.	Optimization of Reinforced concrete isolated footing: A Review	Rawat, S., Mittal, R. K. and Jha, S. K.	2nd International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE 2018)	BITS Pilani, Pilani, India; Feb. 26-28, 2018
2.	Optimization of Reinforced concrete isolated footing: A Review	Rawat, S., Mittal, R. K. and Jha, S. K.	2nd International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE 2018)	BITS Pilani, Pilani, India; Feb. 26-28, 2018
3.	A brief review of Structural aspects of IS 16700:2017	Gupta, V., Rawat, S., Mittal, R. K. and Muthukumar, G.	International Conference on Trends and Recent Advances in Civil Engineering (TRACE 2018)	Amity University, Noida, India; August 23-24, 2018
4.	"Flexural Behavior of Pre-cracked Composite Beams Strengthened with Carbon Fiber Laminates,"	Himanshu Chawla and S. B. Singh	9 <sup>th</sup> International Conference on Fiber Reinforced Polymer Composites in Civil Engineering, CICE 2018,	Paris, July 17-19.
5.	Mechanical characterization of Basalt FRP at elevated temperature conditions	S.B.Singh, Sudhir Vummadiseti*, Prachuryya kaushik, G Muthu kumar and Dipendu Bhunia	Structural Engineering Convention (SEC 2018),	Jadhavpur University, Kolkata, W.B., December 19-21, India.
6.	Non-Linear Dynamic Buckling and Failure Study of Laminated Composite Plates Subjected to Axial Impulse Loads	Vasant Keshav, S. N. Patel and Rajesh Kumar	63 <sup>rd</sup> Congress Of The Indian Society Of Theoretical And Applied Mechanics (An International Conference).	December 20-23, 2018 Dayananda Sagar University, Bangalore in association with IIT Kharagpur, Kharagpur.
7.	Dynamic Buckling and Failure Study of Laminated	Vasant Keshav, S. N. Patel and Rajesh	Structural Engineering Convention (SEC-2018).	19-21, December, 2018, Department of

S.No	Title of Paper	Authors	Name of Conference	Venue & Date of conference
	Composite Curved Panels Subjected to In-Plane Impulsive Loads	Kumar		Civil Engineering Jadavpur University, Kolkata.
8.	Postbuckling analysis of MWCNT-reinforced composite plates under different types of in-plane mechanical loads	Vishal Singh, Rajesh Kumar, S. N. Patel.	Structural Engineering Convention (SEC-2018).	19-21, December, 2018, Department of Civil Engineering Jadavpur University, Kolkata
9.	Nonlinear Dynamic Buckling Study of Cross-Ply Laminated Composite Plate	S. N. Patel, Vasant Keshav and Rajesh Kumar	International Conference on Mechanical Engineering and Allied Science(ICMEAS-2018).	14-15, September, 2018, School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, J&K, 182320.
10.	Dynamic Buckling Behaviour of Composite Plate Subjected to In-plane Pulse Loading	Rajesh Kumar, Mainak Chaudhary and S. N. Patel	21st International Conference on Composite Structures (ICCS21).	4-7, September 2018, School of Engineering and Architecture, University of Bologna, Italy.
11.	Postbuckling analysis of MWCNT-reinforced composite plates under different types of in-plane mechanical loads.	V Singh, R Kumar, SN Patel.	Structural Engineering Convention (SEC-2018),	19-21, December, 2018, Department of Civil Engineering Jadavpur University, Kolkata.
12.	Dynamic buckling and failure study of laminated composite curved panels subjected to in-plane impulsive loads.	V Keshav, SN Patel, R Kumar.	Structural Engineering Convention (SEC-2018),	19-21, December, 2018, Department of Civil Engineering Jadavpur University, Kolkata.
13.	Non-linear dynamic buckling and failure study of laminated composite plates subjected to axial impulse loads.	V Keshav, SN Patel, R Kumar.	63rd Congress of The Indian Society of Theoretical And Applied Mechanics (An International Conference)	December 20-23, 2018, Dayananda Sagar University, Bangalore in association with IIT Kharagpur, Kharagpur.
14.	Nonlinear dynamic buckling study of cross-ply laminated composite plate.	SN Patel, V Keshav, R Kumar	International Conference on Mechanical Engineering and Allied Science(ICMEAS-2018), ,	14-15, September, 2018, School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, J&K, 182320.
15.	Dynamic buckling behaviour of composite plate subjected to in-plane pulse loading.	R Kumar, M Chaudhary, SN Patel.	21st International Conference on Composite Structures (ICCS21),	4-7, September 2018, School of Engineering and Architecture, University of Bologna, Italy.
16.	Thermal Performance Evaluation of Designed Passive Building Elements in Composite Climate: An Experimental Study	Meghana Charde, Rajiv Gupta, Apuroopa Vemuri	Conference on Sustainable Development of Energy, Water and Environment Systems	January 28-31, 2018, Rio de Janeiro, Brazil

S.No	Title of Paper	Authors	Name of Conference	Venue & Date of conference
17.	A Study on the Disposal and Efficient Re-use of Water Treatment Sludge Generated in a Household	Soumya Kar & Rajiv Gupta	8th Annual International Conference on Civil Engineering,	25-28 June 2018, Athens, Greece
18.	Sustainable Development: Evaluating Optimal Technique for Spatial Data Forecast	Gaurav Kumar, Rajiv Gupta	Economy, Sustainable Development and Energy International Conference	25th – 27th June 2018, Edinburgh, Scotland, UK
19.	Power and Area Efficient Intelligent Hardware Design for Water Quality Applications	Anu Gupta, Rajiv Gupta	1st International Conference on Microelectronic Devices and Technologies	(MicDAT '2018, 20-22 June 2018, Barcelona, Spain
20.	Risk Evaluation of Renovating Building	Maithili S. Deshmukh, Rajiv Gupta	The Tenth International Conference on Engineering Computational Technology	4-6 September 2018, Sitges, Barcelona, Spain
21.	Tender Evaluation: MCDM techniques	Somya Agarwal, Keyur Kapadia <u>Rajiv Gupta</u>	The Fourth Australasia and South-East Asia Structural Engineering and Construction Conference	December 3-5, 2018 University of Southern Queensland, Australia
22.	Passive Solar Design For Energy Efficiency In Buildings In Composite Climate	M Charde, R Gupta, A Vemuri	A Kheterpal, S Bhati, International Conference On Recent Advances In Fluid And Thermal Sciences 2018	December 5-7, 2018, Dubai, U.A.E.
23.	Application of ANN for Water Quality Index	Rajiv Gupta, A.N. Singh, Anupam Singhal	5th International Conference on Environmental Systems research (ICESR 2018),	December 6-8, 2018 The University of Queensland Brisbane, Australia
24.	Non destructive condition evaluation of airfield pavements: a case study	Dr. Anshuman, Prof. A.P. Singh & Vidhi Vyas	2019 ASCE International Airfield & Highway Pavements Conference	July, 2019 USA
25.	Investigation of Flexural Fatigue Behavior of Alkali Activated Fly Ash Geopolymer	Dr. Anshuman & Rishib Bajpai	2019 ASCE International Airfield & Highway Pavements Conference	July, 2019 USA
26.	Evaluation of performance of asphalt pavement using analytical and finite element methods: A comparative study	Dr. Anshuman, Prof. A.P. Singh & Vidhi Vyas	International Conference on Recent Advances in Transport Infrastructure-2018, MANIT Bhopal	February, 2018 Bhopal
27.	Strength evaluation of unbound layer of flexible pavement using LWD testing	Dr. Anshuman, Prof. A.P. Singh & Vidhi Vyas	2 <sup>nd</sup> ACSGE-2018, BITS Pilani	February (26-28), 2018
28.	mechanical characterization of basalt FRP at elevated temperature conditions	Shamsher Bahadur Singh, Sudhir Vummadisetti, Prachuryya Kaushik, Muthu Kumar and Dipendu Bhunia	SEC conference	Jadavpur University, 19-21st December, 2018
29.	Influence of curing duration on accelerated carbonation of concrete and the uncertainties in its measurement	S. Hussain, D. Bhunia and S.B.Singh	14th International Conference on Concrete Engineering and Technology 2018 (CONCET2018)	Kuala Lumpur, Malaysia, 7-10th August, 2018
30.	Exploring Rural Road Impacts Using Fuzzy Multi-criteria Approach	Wagale, M., Singh, A. P., & Sarkar, A.K.	International Conference on Trends and Recent Advances in Civil	Amity University Uttar Pradesh, Noida, UP, India, 23 - 24 August

S.No	Title of Paper	Authors	Name of Conference	Venue & Date of conference
			Engineering (TRACE-2018),	2018. (Best Paper Award under Advances in Transportation Engineering).
31.	Evaluation and Quantification of Pollution caused by open drains in Ganges River Basin using multivariate cluster analysis.	Srinivas, R., Singh, A. P., Jain, V., Bhamra, R. S., and Sharma, P.	International Conference on Trends and Recent Advances in Civil Engineering (TRACE-2018),	Amity University Uttar Pradesh, Noida, UP, India, 23 - 24 August 2018, (Best Paper Award under energy and Built Environment Category).
32.	Assessment of Socio-Economic Impacts of PMGSY Roads Using Fuzzy Multi-Criteria Decision Making Tool.	Wagale, M., Singh, A. P. and Sarkar, A. K.	. In Urbanization Challenges in Emerging Economies: Resilience and Sustainability of Infrastructure, Proceedings of <u>ASCE India Conference</u> .	12 - 14 December 2018. <a href="https://doi.org/10.1061/97807844482032.008">https://doi.org/10.1061/97807844482032.008</a>
33.	Evaluation of performance of asphalt pavement using analytical and finite element methods: A comparative study	Vyas, V., Singh, A. P., & Anshuman	International Conference on Recent Advances in Transport Infrastructure-2018 (RAT- MANIT 2018)	MANIT Bhopal, India, 13 - 14 February 2018.
34.	Strength evaluation of unbound layer of flexible pavement using LWD testing.	Vyas, V., Goel, A., Singh, A. P., & Anshuman	. 2 <sup>nd</sup> ACSGE-2018, BITS Pilani-Pilani, India	26 - 28 February 2018.
35.	Structural Response of Skew-Curved Concrete Box-Girder Bridges under Eccentric Vehicular Loading	Tanmay Gupta and Manoj Kumar	Engineering in the Developing World, (IABSE)	Kuala Lumpur April 25 <sup>th</sup> -27 <sup>th</sup> , 2018
36.	Impact of Support Bearing Orientation upon Skewed Concrete Box-Girder Bridges	Tanmay Gupta and Manoj Kumar	11th Structural Engineering Convention	Jadhavpur University Kolkata, Dec. 19th - 21 <sup>st</sup> , 2018
37.	Design and Analysis of Optimized Water Distribution Network at BITS Pilani, Pilani Campus	Harsh Srivastava and AnupamSinghal	World Congress at Civil, Structural and Environmental Engineering (CSEE' 18)	Budapest Hungary, April 8-10, 2018
38.	Liquefaction Potential of Pilani Soil	Kamalesh Kumar	International Conference on Engineering, Computers and Natural Sciences (ICECNS-2018)	Vivanta by Taj, Goa, Sponsored/Organised by Universal Research Foundation (URF), India in Collaboration with NRI Institute of Technology, Andhra Pradesh, India (19-21 October, 2018)
39.	Ground Motion Selection and Scaling using ASCE 7 - 2016	Harish Kumar Mulchandani, G Muthukumar and Suraj Bansal	Proceedings of the 16th Symposium on Earthquake Engineering, IIT Roorkee	December 20-22, 2018, Roorkee
40.	A Relook on Dosage of Basalt Chopped Fibres	Sanket Rawat, Rahul Narula, Nitant Upasani	2nd International Conference on Trends &	August 23-24, Noida

S.No	Title of Paper	Authors	Name of Conference	Venue & Date of conference
	and its Influence	and G. Muthukumar	recent Advances in Civil Engineering (TRACE 2018), Amity University	
41.	Ground Motion Selection and Scaling Methods: Current Practices and Observations	Harish Kumar Mulchandani and G Muthukumar	2nd International Conference ACSGE-2018, BITS Pilani	February 26-28, BITS Pilani
42.	Preparation of bricks using bajra straw and its impact on seismic response of structures	PRACHURYA kaushik, ANURAG agarwal, RAJESH beniwal RISHI badola, ARUN sharma, KUNAL bansal, DIPENDU bhunia	2nd International Conference ACSGE-2018	Feb 26-28, BITS Pilani - Pilani Campus, India, Feb 26-28, 2018
43.	Commuter travel cost estimation at different levels of crowding in suburban rail system: A case study of Mumbai	Sahu, P., Sharma, G., and Guharoy, A.	97th Annual Meeting, Transportation Research Board (TRB)	Washington D.C., USA, 07th - 11th January, 2018
44.	Freight Generation Models for Developing Economies: Predicting Freight Needs of Establishments in 13 Industry Sectors in Kerala (India) using Regression Models and Multiple Classification Analysis	Pani, A. and Sahu, P	97th Annual Meeting, Transportation Research Board (TRB)	Washington D.C., USA, 07th - 11th January, 2018

#### E. BOOKS/BOOK CHAPTERS PUBLISHED DURING THE YEAR

##### Edited Book:

- S.B. Singh, Dipendu Bhunia and G. Muthukumar "Advances in Concrete, Structural, and Geotechnical Engineering," Bloomsbury India, New Delhi, (ISBN:978-93-87471-69-6), 2018

##### Book/Book Chapter

- S. B. Singh, Himanshu Chawla, Sudhir Vummadiseti (2018), "Experimental and Analytical Studies of Failure Characteristics of FRP Connections," Recent Advances in Structural Engineering, Springer, Vol. 2, Book Chapter #324-2076- 1-SP (Editors: Dr. A. Rama Mohan Rao and Dr. K. Ramanjaneyulu).
- Pankaj Munjal and S. B. Singh (2018), "Mechanical Properties of Pva and Polyester Fibers Based Engineered Cementitious Composites," Recent Advances in Structural Engineering, Springer, Vol. 1, Book Chapter # 248-2099- 1-SP (Editors: Dr. A. Rama Mohan Rao and Dr. K. Ramanjaneyulu).
- Mounika Kondreddy, Madappa Vr Sivasubramanian and S. B. Singh (2018), "Finite Element Model Updation using Ambient Vibration Test and Operational Model Analysis of Steel Structures," Advances in Concrete, Structural & Geotechnical Engineering," Bloomsbury India, New Delhi, ISBN:978-93-87471-69-6, pp.412-415.
- Sudhir, Vummadiseti, Himanshu Chawla, and S. B. Singh (2018), "On the effects of Imperfection and Cutout on Dynamic Response of Composite Plates," Advances in Concrete, Structural & Geotechnical Engineering," Bloomsbury India, New Delhi, ISBN:978-93-87471-69-6, pp.761-767.
- Vinay Shimpy, Madappa Vr Sivasubramanian and S. B. Singh (2018), " Review of Nonlinear Seismic Assessment of Historical Masonry Structures," Advances in Concrete, Structural & Geotechnical Engineering," Bloomsbury India, New Delhi, ISBN:978-93-87471-69-6, pp.412-415.
- Spatial Facility Management: A Step to Design Smart City by Rajiv Gupta in Geospatial Infrastructure, Applications and Technologies: India Case Studies, by Editors: N. L. Sarada, P. S. Acharya, and S. Sen, Springer Dec. 2018, Singapore.
- Srinivas R., Singh A. P. (2018) Application of Fuzzy Multi-criteria Approach to Assess the Water Quality of River Ganges. In: Pant M., Ray K., Sharma T., Rawat S., Bandyopadhyay A. (Eds.) Soft Computing:

- Theories and Applications. *Advances in Intelligent Systems and Computing*, Vol 583. pp. 513-522. Springer, Singapore. [https://doi.org/10.1007/978-981-10-5687-1\\_46](https://doi.org/10.1007/978-981-10-5687-1_46)
- Swathi, V., Raju, K.S., and Singh, A. P. (2018). 'Application of Storm Water Management Model to an Urban Catchment'. In: Singh V., Yadav S., Yadava R. (eds) *Hydrologic Modeling, Water Science and Technology Library*, Vol 81. pp 175-184. Springer, Singapore. [https://doi.org/10.1007/978-981-10-5801-1\\_13](https://doi.org/10.1007/978-981-10-5801-1_13)
  - Singh A. P., Shrivastava P., Vidyarthi A.K. (2018). 'Potential Impacts of Climate Change on Water Resources in Semi-Arid Region of Chittorgarh, India'. In: Singh V., Yadav S., Yadava R. (eds) *Climate Change Impacts. Water Science and Technology Library*, Vol 82. pp. 201-211. Springer, Singapore. [https://doi.org/10.1007/978-981-10-5714-4\\_17](https://doi.org/10.1007/978-981-10-5714-4_17)
  - Akshara G., Srinivasa Raju K., Singh A.P., Vasani A. (2018). 'Application of Multiple Linear Regression as Downscaling Methodology for Lower Godavari Basin'. In: Singh V., Yadav S., Yadava R. (eds) *Climate Change Impacts. Water Science and Technology Library*, Vol 82. pp. 25-34. Springer, Singapore. [https://doi.org/10.1007/978-981-10-5714-4\\_3](https://doi.org/10.1007/978-981-10-5714-4_3)
  - Mittal, R.K., Rawat, S. "Effect of Soil Heterogeneity on Soil-Structure Interaction." In: Adimoolam B., Banerjee S. (eds) *Soil Dynamics and Earthquake Geotechnical Engineering. Lecture Notes in Civil Engineering*, vol 15. Springer, Singapore, Published online on June 10, 2018.
  - Manoj Kumar, Nitin Gulhane, Tanmay Gupta (2018), 'Effect of Skewness on Shear Lag Effect in RC Box-Girder Bridges' *Recent Advances in Structural Engineering*, Volume 1, pp 233-245, 2018. Springer, Editors: A. Rama Mohan Rao and K. Ramanjaneyulu, ISBN 978-981-13-0361-6, [https://link.springer.com/chapter/10.1007/978-981-13-0362-3\\_19](https://link.springer.com/chapter/10.1007/978-981-13-0362-3_19)
  - Tanmay Gupta and Manoj Kumar, 'Reaction Response of Horizontally Curved and Skewed Concrete Box-Girder Bridges' *Recent Advances in Structural Engineering*, Volume 1, pp 49-60, Springer, Editors: A. Rama Mohan Rao and K. Ramanjaneyulu, ISBN 978-981-13-0361-6, [https://link.springer.com/chapter/10.1007/978-981-13-0362-3\\_4](https://link.springer.com/chapter/10.1007/978-981-13-0362-3_4)
  - Nishant Rathi, G. Muthukumar, Manoj Kumar, 'Influence of Shear Core Curtailment on the Structural Response of Core-Wall Structures', *Recent Advances in Structural Engineering*, Volume 1 pp 207-215, Springer, Editors: A. Rama Mohan Rao and K. Ramanjaneyul, ISBN 978-981-13-0361-6, [https://link.springer.com/chapter/10.1007/978-981-13-0362-3\\_17](https://link.springer.com/chapter/10.1007/978-981-13-0362-3_17)

## PATENTS

1. Low Cost Filtration System and Method for Fluoride Reduction from Water, U.S. Provisional Patent Application Serial No. 62/685,021, Inventors: Rajiv Gupta, Sheetal Sekhri, and Anupam Singhal, Filed on June 14, 2018
  2. Pervious concrete filter and water purifying systems, India – Provisional Patent Application No.: 201811029517 Inventors: Rajiv Gupta, Prabhat Jha, Dated: August 06, 2018
  3. A Reservoir System for Underground Water Storage, Application Number: 201711045481, Inventors: Rajiv Gupta and Keyur Kapadia, Application Filing Date: 7th March, 2018
- F. INVITED TALKS/KEY -NOTE LECTURES DELIVERED/SESSION CHAIRING BY FACULTY MEMBERS
1. Prof. S. B. Singh delivered an Invited lecture on "Applications of ECC for Masonry Structures" at SVNIT Surat, May 10, 2018.
  2. Prof. S. B. Singh delivered 4.5 Hours lecture at Symposium organized by Team Moments of Civil Engineering Association of NIT Tiruchirappaly, Tamilnadu on March 17, 2018.
  3. Prof. S. B. Singh Conducted interview for selection of faculty members at Sobhasaria Group of Institutions, Gokulpura, Sikar on June 10, 2018.
  4. Prof. S. B. Singh attended Orientation workshop on Outcome Based Education, organized by NBA, New Delhi on May 28, 2018.
  5. Prof. S. B. Singh acted as Resource Person for Intensive Teaching Workshop, Part-II on April 9 & 16, 2018 at BITS Pilani
  6. Organized 2nd International Conference on Advances in Concrete, Structures, and Geotechnical Engineering (ACSGE 2018) as Organizing Chairman at BITS Pilani, Pilani Campus during Feb. 26-28, 2018.

7. Prof. Ajit Pratap Singh delivered a key note lecture titled "Water Resources Management: Challenges, Opportunities and Nature based Solutions" as the Chief Guest of World Water Day Celebration organized jointly by the BKBIET, Pilani and Institution of Engineers (India) local chapter on 22nd March 2018.
8. Prof. Ajit Pratap Singh chaired a technical session on Concrete/Structures during 2nd ACSGE-2018, BITS Pilani-Pilani, India, 26 – 28 February 2018.
9. Prof. Ravi Kant Mittal Chaired one session in 2nd Int. Conf. on Adv. in Concrete, Structural & Geotechnical Engg. , BITS Pilani, Feb. 2018.
10. Prof. Rajiv Gupta Chaired the "Concrete session IV" 2nd International conference on Advances in Concrete, Structural, and Geotechnical Engineering (ACSGE 2018) organized by Department of Civil Engineering, BITS, Pilani, Pilani campus, during February 26-28, 2018
11. Prof. Rajiv Gupta Session Chair "Climate Policy & Solutions" in 5<sup>th</sup> Annual International Convention on Climate Change and Water Research that will be held on 09-11<sup>th</sup> February, 2018 in Suresh Gyan Vihar University, Jaipur
12. Prof. Rajiv Gupta Chaired the "Technical Session [VI]: New Media" International conference on media, culture and ethics organized by BITS, Pilani, Pilani campus, during February 9-10, 2018
13. Dr. Manoj Kumar delivered an Invited lecture on "Structural Response of Skew-Curved Box-girder bridges, at Department of Civil Engineering, SVNIT Surat on 30<sup>th</sup> March 2018.
14. Prof. Dipendu Bhunia delivered a Lecture on "Seismic Design of Structures: An Overview" in the Workshop Moments, Civil Engineering Association, NIT Trichy-620015 on 17<sup>th</sup> March, 2018.
15. Dr. Shibani K Jha delivered invited talk on "Unique Challenges of Teaching and Learning for Civil Engineering in India under Migrating Vision and Imagination" in India International Conference on Teaching and Learning in Engineering and Medicine, IICTLEM-2018 by SEE-India, 22-24 Nov 2018
16. Dr. Shibani K Jha delivered Invited talk on "Nature Based Solution for Water Problems" on World Water Day by IEI Chapter, March 2018.
17. Dr. Prasanta K. Sahu delivered Invited talk on "Towards the Development of a Freight Transportation Planning Toolkit for Facility Planning in India, School of Geography and Planning, Cardiff University, UK, 2018.

#### G. INVITED TALKS ARRANGED / CONDUCTED IN THE DEPARTMENT:

- Mr. Sanjay Jindal, Director Consulting Engineers Group, Jaipur interacted with Higher Degree students and shared his thoughts about the growing infrastructure of our country and as well as on the skill sets demanded by the industry on March 12<sup>th</sup>, 2018.
- Dr. Tarun Rambha, Assistant Professor, IISc Bangalore has interacted with Higher Degree students and delivered a talk on "Ride sharing" at BITS Pilani- Pilani campus and connected other campus through Tele-presence class room on November 5, 2018.
- Prof Avijit Mukerjee of Curtin University, Australia visited BITS Pilani and interacted with Civil Engineering faculty to explore mutual research opportunities on December 13, 2018.

#### H. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED BY DEPARTMENT

- Department of Civil Engineering organized Second International Conference on "Advances in Concrete, Structural and Geotechnical Engineering-2018" held at BITS, Pilani, 26-28th February 2018

#### I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION

- Prof. Prasanta K. Sahu was a visiting Scholar, Cardiff University, Cardiff, Wales, UK, during September 2018

#### K. AWARDS AND RECOGNITIONS

##### FACULTY:

- Prof. S.B. Singh was appointed as Chartered Engineer (INDIA) by Institution of Engineers on June 12, 2018
- Prof. S.B. Singh Selected by NBA (National Board of Accreditation) as Evaluators of Technical Institutions, May 2018.
- Prof. S.B. Singh was appointed as Editorial Board Member of Journal of Polymer Science and Engineering, March 02, 2018



- Prof. Ajit Pratap Singh was appointed as commissioner to assess CETPs, STPs, and industrial pollution in Jojari river (Jodhpur to Balotra, Rajasthan) by the Hon'ble National Green Tribunal, New Delhi in March 2018.
- Prof. Ajit Pratap Singh was also nominated as one of the expert in the Expert Selection Committee (ESC) for recruitment of Scientists in the Ministry of Environment, Forest and Climate Change.
- Prof. Ajit Pratap Singh was appointed as an External Expert in Faculty Selection Committee of Various Universities such as Thapar University, Manipal University etc.
- Prof. Ajit Pratap Singh was appointed as one of the Members of High Powered Expert Committee (HPEC) constituted by the Hon'ble National Green Tribunal, New Delhi to assist the Tribunal for setting influent standards required for the CETP in accordance to the Notification dated 1st January, 2016 and to take further remedial measures in October 2018.
- Prof. Ajit Pratap Singh evaluated a PhD Thesis titled "Structural and Green Quotient Evaluation of Existing Buildings using Fuzzy Logic and Green Building Rating Systems" submitted to Uttarakhand Technical University, Dehradun in June, 2018.

#### STUDENTS:

- Two of the graduating students (Mr. Kabil Bhargava and Ms. Isha Shyam Narsaria) have been awarded Prof. V S Rao Foundation "Best All Rounder Award" by BITS Pilani for the year 2018.

#### K. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR

S. No.	Name of Instrument
1.	Chain Pully-5 Ton Capacity
2.	AE System Waveform Option
3.	Accelerated Curing Tank
4.	Weiber Muffle Furnace
5.	Tile Abrasion Testing Machine
6.	Multi Purpose Tilting Flume Apparatus
7.	Stocks Law Apparatus
8.	Modified Heleshaw Apparatus
9.	Digital Hot Air Oven
10.	BOD Incubator
11.	Accessory For Marshal Test Apparatus
12.	Digital Water Bath

#### L. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES

##### Infomal Interactions

Infomal interaction with the freshers by CEA student team in the first weekend of August was organized, in which students were given the insights of the work that would be entrusted upon them and were told about the expectations from the Civil Engineering Association (CEA). This helped the newcomers to bond with their branch seniors.

##### Meets

Monthly meets were held and all the team members attended. Various ideas and issues related to CEA activities like newsletter, events, workshops etc were discussed. Academic assistance needed by students from different batches were also discussed and the accordingly the future activities were planned.

### Software Training Workshops

A workshop on STAAD.Pro was also conducted on September 15-16 by CEA in which the use of this structural design and analysis software was taught to the students from the scratch.

Autodesk AutoCAD workshop was organized on September 30-31, especially for 1<sup>st</sup> year students. Student's problems and doubts were discussed.

### ESE Talk

On 8<sup>th</sup> September 2018, a talk on Engineering Services Examination (ESE) was conducted by CEA in which Ms. Aishwarya Gupta (AIR 71, ESE 2017), a BITS alumnus and currently serving as an Assistant Executive Engineer in Central Engineering Services, Roads, under MORTH, shared her experience. In her talk she also shared her interview experience in the ESE and importance of technical knowledge. Throughout the talk she had focused more on difficulties generally faced by the students be it deciding on the future or regarding the branch or the mental stress for the exams and provided suggestions on how to deal with such situations.

### Newsletters

First volume of CEA monthly newsletter- 'The Caterpillar' was released in August, 2018. It was released with an aim to improve the knowledge and awareness of the readers about the recent developments in the field of Civil Engineering. It includes articles about different structures, advancements, research topics, future opportunities, etc. Three more issues of this newsletter were released in the months of September, October and November with the themes of Structural Engineering, Transportation Engineering and Geotechnical Engineering respectively.

### APOGEE Meets

Two APOGEE Paper/Project Meets were held. Intense brainstorming was done to discuss ideas as well as the project pitching rounds to follow. Several exciting events are planned for APOGEE 2019. Emphasis was given to make the APOGEE events better and more challenging. Project/ Paper ideas were encouraged and the student's doubts were cleared.

### Farewell Ceremony

A farewell ceremony was organized for the passing out class of 2019, on 26<sup>th</sup> November 2018. This event was attended by faculty members of the Civil Engineering department. The CEA bid farewell to its graduating students.

### Other Events

On 15<sup>th</sup> August 2018, an event- Jenga was organized and attracted more than 80 participants to build the tallest tower out of the small blocks with an intention to enhance their thinking ability about the stability of structures. It received a very good response from the students especially from freshers.

## B1.10.3 Department: Chemical Engineering

Number\* of faculty members (as on 31 December 2018)

Professor	01*
Associate Professor	06
Assistant Professor	07+02*
Lecturers	00

\* Off Campus.

Head of the Department : Prof. H. K. Mohanta  
 Contact details : harekrishna@pilani.bits-pilani.ac.in  
 Number of PhD Scholars : 12 + 1\* (\* Part Time)  
 Ph.D. Thesis Submitted during the year : 01

## A. SPONSORED RESEARCH ACTIVITIES

Total number of Sponsored Projects in the department: 06

## i. Ongoing projects

Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)	Year
Hydrogen production from ethanol by temperature reforming methods using modified Ni-Sn/Al <sub>2</sub> O <sub>3</sub> and Ni-Sn/CeO <sub>2</sub> Catalysts	Prof.. Banasri Roy	DST-SERB	19.34	2016 - 2019
Dual Catalytic Monolith Reactor for Biogas Reforming	Dr. Srinivas Appari	BITS, Pilani	8.25	2017 - 2019
Particle Image Velocimetry studies on a bench-scale cold-flow Fluidized Catalytic Cracking (FCC) riser unit.	Dr. Priya C Sande	BITS, Pilani	10.00	2017 -2019
Mixed-Matrix membranes (MMM) for separation of CO <sub>2</sub> /CH <sub>4</sub> for biogas up-gradation	Dr. Bhanu Vardhan Reddy Kuncharam	BITS, Pilani	2.00	2017 - 2019
Synthesis and characterization of epoxy based thermal interface materials (TIMs) for electronics packaging applications	Dr. Krishna Chaitanya Etika	BITS, Pilani	2.00	2018 - 2020
Experimental Investigation on Catalytic Treatment of Producer Gas	Prof. Pratik N. Sheth	Ankur Scientific Energy Tech. Pvt., Ltd., Vadodara	7.02	2018

## ii. Projects sanctioned during the year

Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)	Year
Synthesis and characterization of epoxy based thermal interface materials (TIMs) for electronics packaging applications	Dr. Krishna Chaitanya Etika	BITS, Pilani	2.00	2018-2020
Experimental Investigation on Catalytic Treatment of Producer Gas	Prof. Pratik N. Sheth	Ankur Scientific Energy Tech. Pvt., Ltd., Vadodara	7.02	2018-2019

## iii. Projects completed this year

Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)	Year
Design and development of a novel biomass stove for cooking application	Dr. Pratik N Sheth	BITS, Pilani	9.00	2016-2018

**B. PUBLICATIONS**

(i) The faculty of the department published papers in international refereed journals during the year.

1. Sharma, R. and P.N. Sheth, Multi reaction apparent kinetic scheme for the pyrolysis of large size biomass particles using macro-TGA. *Energy*, 151, 1007-1017.(2018).
2. AthiraGopinath, A.Bahurudeen, Srinivas Appari, A circular framework for the valorisation of sugar industry wastes: Review on the industrial symbiosis between sugar, construction and energy industries, *Journal of Cleaner Production*, 203, 89- 108. (2018)
3. R. Arun Karthick, Ketan Jangir, Pradipta Chattopadhyay, "Foaming and Cleaning Performance Comparison of Liquid Detergent Formulations using Mixtures of Anionic and Nonionic Surfactants", *Tenside Surfactants Detergents*, 55(2), 162-168, 2018.
4. Somesh Mishra, Silabrata Pahari, Shiva, K, Suvrasoumya Mohanty, Suresh Gupta, Smita Raghuvanshi, "Investigation on CO<sub>2</sub> bio-mitigation using *Halomonas stevensii* in laboratory scale bioreactor: Design of downstream process and its economic feasibility analysis", *Journal of CO<sub>2</sub> Utilization*, 24, 274-286, 2018.
5. Rajnish Prakash Singh, Somesh Mishra, Prameela Jha, Smita Raghuvanshi, Prabhat N Jha "Effect of inoculation of zinc-resistant bacterium *Enterobacter ludwigii* CDP-14 on growth, biochemical parameters and zinc uptake in wheat (*Triticum aestivum* L.) Plant", *Ecological Engineering*, 116, 163-173, 2018.
6. Smita Raghuvanshi, Vikrant Bhakar, Ramakrishna Chava, K S Sangwan, "Comparative study using life cycle approach for the biodiesel production from microalgae grown in wastewater and fresh water", *Procedia CIRP*, 69, 568-572, 2018.
7. Abhijeet Choudhary and Amit Jain, "Studies on Closed-loop Interaction in a Multi-loop Single Tank Control System", *International Journal of Engineering & Technology*, 7 , 38-41, 2018.
8. B Patil, S Sharma, HK Mohanta, B Roy, BINIVOX Catalyst for Hydrogen Production from Ethanol by Low Temperature Steam Reforming (LTSR), *Journal of Chemical Sciences*, 129 (11), p 1741-1746 (2018).

(ii) The faculty of the department published papers in international/national conferences during the year.

1. Ahuja, Kabir, and Ajaya Kumar Pani. "Software sensor development for product concentration monitoring in fed-batch fermentation process using dynamic principal component regression." In 2018 International Conference on Soft-computing and Network Security (ICSNS), pp. 1-6. IEEE, 2018.
2. K. Karthik, A.K. Sharma, B.V. Reddy Kuncharam, "CFD modeling of fluid flow characteristics in Jet Loop Reactors." In 71st Annual Session of Indian Institute of Chemical Engineers CHEMCON 2018. (December 27-30, 2018).
3. Prasad S. Ingle, Srinivas Appari, B.V. Reddy Kuncharam, "CFD Modeling of catalyst poisoning with detailed kinetics for biogas steam reforming.", In 71st Annual Session of Indian Institute of Chemical Engineers CHEMCON 2018. (December 27-30, 2018).
4. Akshya Khandelwal, Devendra Purbia and Arvind Kumar Sharma, Comparative Study of Graphene/Water Nano-Fluid in a Heat Exchanger System: Modelling and Simulation, Annual Meeting of AIChE – 2018, Oct 28-Nov 2, 2018, Pittsburg, PA, USA.
5. K Karthik and Arvind Kumar Sharma, CFD Modeling of Hydrodynamics in Jet Loop Reactors, International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS-2018), November 1-3, 2018, Pilani, India.
6. K Karthik and Arvind Kumar Sharma, Flow Pattern and Transport of Mass in Jet Loop Reactors : Perspectives & Challenges, International Symposium & 71<sup>st</sup> Annual Session of IChE in association with International Partners (CHEMCON – 2018) | International Conference on Seamless Chemical Engineering in Service of Humanity: Innovations, Opportunities and Challenges, Dec 27-30, 2018, Jalandhar, India.

**C. CONFERENCES/WORKSHOPS ATTENDED/PAPERS PRESENTED**

i) National:

1. Dr Pratik N Sheth attended and chaired the technical session during 71<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers, CHEMCON–2018 from December 27 – 30, 2018 at Dept. of Chemical Engineering, Dr. B. R. Ambedkar National Institute of Technology Jalandhar.

ii) International:

1. Dr Ajaya Kumar Pani presented a paper and chaired a technical session in 2nd International Conference on Soft Computing and Network Systems (IEEE-ICSNS 2018) held at SNS College of Technology, Coimbatore during 14-16 February 2018.

2. Dr. Pradipta Chattopadhyay attended lecture sessions from 5th International Symposium on Surface Imaging/Spectroscopy at the Solid/Liquid Interface (ISSIS 2018) held in Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Krakow, Poland, Europe during 6th June 2018- 8th June 2018.
  3. Dr Amit Jain attended and presented on “Studies on Closed-loop Interaction in a Multi-loop Single Tank Control System” at International Conference on Chemical and Process Plant Engineering (ICCPE-2018), Petaling Jaya, Malaysia, July 26, 2018.
  4. Dr Smita Raghuvanshi attended and presented paper entitled “Gaseous phase CO<sub>2</sub> bio-mitigation using mixed microbial population in an indigenously developed packed bed bioreactor” at 23rd International Congress of Chemical and Process Engineering - CHISA-2018 held at Prague from 25-29th August, 2018.
- D. BOOKS/BOOK CHAPTERS PUBLISHED:
1. Tapas Kumar Patra and Pratik N Sheth , "Biomass thermo-chemical treatment methods and techno-economic assessment". In Recent Advancements in Biofuels and Bioenergy Utilization Editors: Sarangi, Prakash Kumar, Nanda, Sonil, Mohanty, Pravakar (Eds.) Springer Singapore (2018).
- E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED : N.A.
- F. INVITED TALKS GIVEN BY BITS FACULTY:
1. Prof. Pratik N. Sheth participated as a resource faculty in the “Global Initiative of Academic Networks” (GIAN) sponsored one week course on "Renewable and Sustainable Technologies for Fuels, Chemicals and Power Production" during September 24-28, 2018, Organized by Department of Chemical Engineering, Motilal Nehru National Institute of Technology (MNNIT) Allahabad - 211004, India. He delivered a lecture entitled Characterization of biomass and products of Gasification, pyrolysis and liquefaction.
  2. Dr. Srinivas Appari delivered an invited talk on "Catalytic deactivation and regeneration” under TEQIP III, at Chemical Engineering Department, JNTUH college of Engineering, Hyderabad on 12- 07- 2018.
  3. Dr Ajaya Kumar Pani delivered an invited talk on “Process data analytics and applications in cement industries” at Aditya Birla Science and Technology Company (ABSTC), Mumbai on 3rd April 2018.
  4. Dr Amit Jain delivered an invited talk on “Process Intensification in Bioprocessing Industry” in a Short Term Course on "Recent Trends in Process Intensification in Chemical and Allied Industries" organized by department of chemical engineering, B.I.E.T, Jhansi during October 27-31, 2018.
  5. Dr Amit Jain delivered an invited talk on “Studies on the effect of Secondary Carbon Sources (Glucose and Glycerol) on the Production of Biosurfactant using Waste Engine Oil (WEO) as a substrate”, in International Conference on Life Sciences Research & its interface with Engineering and Allied Sciences- LSRIEAS-2018, organised by Department of Biological Sciences, from Nov 1-3, 2018.
  6. Dr. Pradipta Chattopadhyay delivered an invited lecture on 20th June 2018 regarding his Research on “Surfactant Foams and Foam based applications” in Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Krakow, Poland, Europe.
  7. Dr Smita Raghuvanshi delivered a lecture entitled “Life cycle Assessment of Waste Minimization Techniques”, during Feb 19-23, 2018 organized by - Bundelkhand Institute of Engineering & Technology, Jhansi, UP, as part of Faculty Development Program, World Bank TEQIP – III.
  8. Dr Smita Raghuvanshi, delivered an expert talk on “Applications of LCE in chemical engineering” in 6th Indo-German Workshop on Sustainable Manufacturing & Entrepreneurship jointly organized by BITS Pilani and TU Braunschweig, Germany, on September 17, 2018.
  9. Dr Smita Raghuvanshi, delivered an invited talk on “Process development for carbon capture utilization studies using *H.stevensii*”, in International Conference on Life Sciences Research & its interface with Engineering and Allied Sciences- LSRIEAS-2018, organised by Department of Biological Sciences, from Nov 1-3, 2018.
- G. INVITED TALKS ARRANGED IN THE DEPARTMENT
1. Expert lecture series of three lectures by Mr. Kabidas Mandalon Ex. Chief General Manager (Optimization) IOCL. “Petroleum Processing”. 17th-18th Sep. 2018.
  2. Expert Lecture by Mr Ganpati Kamble, Technical Head, Josts Engineering Com Ltd, “Latest Fluid Dynamic Imaging Techniques used in Research and Industry”. 4th April 2018.

## H. AWARDS AND RECOGNITIONS WON

### i) Faculty:

1. Dr. Pradipta Chattopadhyay received INSA Bilateral Exchange Award 2018 to visit Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Krakow, Poland, Europe from 4<sup>th</sup> June 2018- 25<sup>th</sup> June 2018.
2. Prof. Arvind Kumar Sharma, External Expert for (BTech) Practical Examination/Viva-Voce, Dec 21, 2018, USCT, GGS Indraprastha University, Delhi.

Students: N.A

## I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION AND INDUSTRY IM MERSION

1. International Collaboration: Dr. Pradipta Chattopadhyay visited Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Krakow, Poland, Europe from 4<sup>th</sup> June 2018- 25<sup>th</sup> June 2018 as part of INSA Bilateral Exchange Programme 2018.

## J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR

Experimental Setup for Multi-Stage Liquid-Solid Fluidized Bed, Multi-position Magnetic Stirrer with Hot Plate, Furnace with temperature controller and Nitrogen flow, Vacuum pump, Dissolved CO<sub>2</sub> Measurement system, Hotwire Anemometer, Biomass Pelletizer, Chiller, Temperature Recorder (16 Channel Data Logger), Isokinetic Tar Sampling Unit, Steam Superheater, Water Analysis Kit, Vacuum Oven (45 Ltr.), Electronics Balance etc.

## K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES

### Chemical Engineering Association:

The second edition of the chemical engineering extravaganza of BITS Pilani, EXTROPY 2k18, was organized from 26<sup>th</sup> to 28<sup>th</sup> January 2018 by the students of Chemical Engineering. It featured a host of events ranging from workshops on ASPEN Plus and by Toastmasters International, lectures by Dr Pradeep Gohil, executive in the Chemical Industry for over 40 years; Navkaran Singh Bagga, an entrepreneur; and Dr Raj R. Rao, professor of Biomedical Engineering at the University of Arkansas and, a variety of fun events like Chem-Charades, Potions Master and Glow Darts. The overall participation almost doubled from last year with more than 500 students participating in the fest.

Phenomenon: The chemical engineering magazine was released during Farewell ceremony held on November 27<sup>th</sup> 2018.

### AIChE BITS Pilani Student Chapter

The Department of Chemical Engineering BITS Pilani has achieved Student Chapter status in American Institute of Chemical Engineers (AIChE) as of March 2018. It provides a host of opportunities to the students for participating in the various events organized by AIChE globally.

### IChE Pilani Regional Center:

An invited talk and interactive session of Dr Swati Sharma was organized on 5<sup>th</sup> February 2018. Dr Swati leads the Advanced Carbon Materials and Devices research group at the Institute of Microstructure Technology, Karlsruhe Institute of Technology, Germany. She obtained her M.S. / Ph.D. from the University of California, Irvine, USA in 2013 in the field of Materials and Manufacturing Technologies. Prior to this she completed her Bachelor and Master dual degree in Chemical Engineering/ Chemistry from the Birla Institute of Technology and Science, Pilani, India and worked as a research scientist for over 4 years at Ranbaxy Research Laboratories, Gurgaon. The talk was based on production of glassy carbon through pyrolysis of polymers and application in devices such as MEMS/NEMS.

An interactive session of 3<sup>rd</sup> year students with second year students were arranged on 12<sup>th</sup> September 2018. Selected third-year undergraduate students presented their industrial projects (done during summer vacation) in front of faculty members and students. The event was held with a purpose of giving the second year students a flavor of what kind of work is being done in industries and research labs in the country with regard to chemical engineering and various other sectors where the students completed their industrial summer training.

On 17<sup>th</sup> and 18<sup>th</sup> September 2018, Mr. Kabidas Mandal, Ex. Chief General Manager, IOCL visited BITS Pilani, Pilani campus and delivered three talks before the faculty members and students on the following topics: Hydro-cracker Unit Operation and Catalyst Activity; Oil Scenario of India (Present and Future) and Fundamentals of Refinery Planning; Latest Refinery Configuration and Best Technologies

## B1.10.4 Department: Chemistry

Number of faculty members (as on 31<sup>st</sup> December 2018)

Professors	04
Associate Professors	09
Assistant Professors	03
Research Associate	03
WOSA Scientist	02
DST Inspired Faculty	02

Head of the Department : Prof. Saumi Ray

Contact details: saumi@pilani.bits-pilani.ac.in

Number of Ph D Scholars: 46

Ph.D. Thesis Submitted and awarded during the year: Awarded: 5, Submitted: 6

## A. SPONSORED RESEARCH ACTIVITIES

Total number of Sponsored Projects in the department: 12. Details are given below.

(i) Ongoing projects

Principal Investigator	Funding Agency	Title of the Project	Amount (Lakhs)
Dr. Anil Kumar	DST-SERB	Synthesis of novel N-fused polycyclic compounds through transition metal catalyzed cascade/C–H functionalization reactions	32.84
Dr. Bibhas Ranjan Sarkar	DST_SERB EMR	Studying Catalytic Carbonylation of Polyols - Sustainable Route to Carboxylic Acids	32.29
Dr. Inamur Rahaman Laskar	DST	Design and Syntheses of Heavy Metal based Aggregation Induced Emission Active Complexes and their Application in Bio-imaging	35.9
Dr. Indresh Kumar	DST-SERB	Asymmetric synthesis of [2.2.2] azabicyclo-isoquinucilidine derivatives: Towards the synthesis of related alkaloids	43.296
Mrinmoyee Basu	DST	Decoration of Co-catalyst on the Ultrathin 2D Sheets of Metal Chalcogenides and Their Application in Photoelectrochemical Water Splitting	35
Mrinmoyee Basu	DST-SERB	Decoration of Plasmonic Nanoparticles on Ultrathin 2D Nanostructure of Metal Chalcogenides and Their Application in Photoelectrochemical Water Splitting and Photocatalysis	19.82
Dr. Rajeev Sakhuja	DST-SERB	Transition-metal-catalyzed synthesis of fused heterocycles via C-C/C-N bond forming strategies	33.27
Dr. Subit K. Saha	CSIR	Effect of Chemical Nature of Spacer group, Headgroups and Counterions of Gemini Surfactants on Solvation Dynamics and Rotational Relaxation of Coumarins in Aqueous Micelles	15.9
Dr Kiran Bajaj	DST	Synthetic Probes for Staudinger Ligation: Synthesis and Application of Phosphane Based templates.	29.70
Dr. Hemant Joshi	DST Inspire	Synthesis of Metal Complexes of Mechanically Interlocked Molecules and their Applications	35
Dr. Ajay K. Sah	DST	Synthesis of D-glucose derived glycoconjugates and their application in molecular recognition and catalysis	30.09

## (ii) Projects sanctioned

Principal Investigator	Funding Agency	Title of the Project	Amount (Lakhs)
Dr. Amrita Chakraborty	DST	Assessment of sulfur centered halogen bonding (C-X...S, X = Cl, Br, I) interaction using Matrix Isolation Infrared spectroscopy.	29.4
Dr. Ajay K. Sah	CSIR	Synthesis of metal complexes using D-Glucose Derived Ligands and Application of Produced Molecules in Catalysis	11.5

## (iii) Projects completed

Principal Investigator	Funding Agency	Project Name	Amount (Lakhs)
Dr. Bibhas R. Sarkar	ACRG, BITS Pilani	Sustainable catalytic route to C4-C6 carboxylic acids/ hydroxy acids by carbonylation of polyols	5.5
Dr. Ram K. Roy	DST-SERB	Development and application of density functional reactivity theory based modeling techniques to understand the energetics of reactive and non-reactive interactions	31.55
Dr. Subit K. Saha	UGC-DAE CSR	Investigation of unfolding and refolding of proteins by gemini surfactants with varying spacer groups using fluorescence spectroscopy and small-angle neutron scattering techniques	6.63

## B. PUBLICATIONS

The faculty members of the department published fifty-three papers in international/national refereed journals during the year.

1.	Pankaj Nehra, Bharti Khungar, Rajnish P. Singh, S.C. Sivasubramanian, Prabhat N. Jha, Vaishali Saini, Synthesis, characterization and applications of imidazolium ionic liquid-tagged zinc(II) complex, <i>Inorg. Chim. Acta</i> 2018, 478, 260–267
2.	S. Kumari, S. M. A. Shakoar, D. Markad, S. K. Mandal, Rajeev Sakhuja, NH <sub>4</sub> OAc-Promoted Cascade Approach towards Aberrant Synthesis of Chromene-Fused Quinolinones, <i>Eur. J. Org. Chem.</i> 2019, in press.
3.	S. Kumari, S. M. Abdul Shakoar, S. Khullar, S. K. Mandal, Rajeev Sakhuja, An unprecedented tandem synthesis of fluorescent coumarin-fused pyrimidines via copper-catalyzed cross-dehydrogenative C(sp <sup>3</sup> )-N bond coupling, <i>Org. Biomol. Chem.</i> 2018, 16(17), 3220.
4.	P. Karishma, C. K. Mahesha, D. S. Agarwal, S. K. Mandal, Rajeev Sakhuja, Additive-Driven Rhodium-Catalyzed [4+1]/[4+2] Annulations of N-Arylphthalazine-1,4-dione with $\alpha$ -Diazo Carbonyl Compounds, <i>J. Org. Chem.</i> 2018, 83(19), 11661.
5.	D. S. Agarwal, V. Siva Krishna, D. Sriram, P. Yogeewari, Rajeev Sakhuja, Clickable conjugates of bile acids and nucleosides: Synthesis, characterization, in vitro anticancer and antituberculosis studies, <i>Steroids</i> 2018, 139, 35.
6.	C. K. Mahesha, D. S. Agarwal, P. Karishma, D. Markad, Datta; Mandal, Sanjay K.; Sakhuja, Rajeev Iridium-catalyzed [4+2] annulation of 1-arylidazolones with $\alpha$ -diazo carbonyl compounds: access to indazolone-fused cinnolines, <i>Org. Biomol. Chem.</i> 2018, 16(44), 8585.
7.	Kiran Bajaj, D. S. Agarwal, Rajeev Sakhuja, G. G. Pillai, Aziridine based electrophilic handle for aspartic acid ligation, <i>Org. Biomol. Chem.</i> (2018), 16(23), 4311-4319.
8.	Kiran Bajaj, Natural Bioactive Cyclic Peptides and Peptidomimetics, Studies in Natural Products Chemistry (ELSEVIER SCIENCE PUBLISHERS), 2019, In press.
9.	Sonam Sharma and Bibhas R. Sarkar, Efficient Mizoroki–Heck coupling reactions using phosphine-modified Pd(II)–picolinate complex, <i>Synth. Commun.</i> , 2018, 48(8), 906-914
10.	R Nazir, U Basak, S Pande, Synthesis of one-dimensional RuO <sub>2</sub> nanorod for hydrogen and oxygen evolution reaction: An efficient and stable electrocatalyst, <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> 2019, 560, 141-148
11.	S. Choudhary, JVN Sarma, S. Pande, S. Ababou-Girard, P. Turban, B. Lepine, S. Gangopadhyay,



	Oxidation mechanism of thin Cu films: A gateway towards the formation of single oxide phase, <i>AIP Advances</i> , 2018, 8 (5), 055114.
12	Sharma, A.; Kumar, D.; Manohar, P.; Pande, S.; Dalvi, A.; Shukla, P. Functionalized Pyranopyrazole Molecules as Corrosion Inhibitors for Mild Copper Metal in HCl Solution: Synthesis, Theoretical Studies, and Physical Investigations, <i>Materials Research Express.</i> , 2018, 5 (2), 025101.
13	V. Kachawal, I. S. V Krishna, L. Fageria, J. Chaudhary, R. K. Roy, R. Chowdhury, I. R. Laskar Exploring the hidden potential of benzothiazole based Schiff base "AIE and ES IPT" active for pH sensing, intracellular imaging and ultrasensitive & selective detection of Aluminium (Al <sup>3+</sup> ), <i>Analyst.</i> , 2018, 143, 3741-3748.
14	Sharma, M. D.; Mahala, C.; Basu, M., AgPd Alloy Nanoparticles Decorated MoS <sub>2</sub> 2D Nanosheets: Efficient Hydrogen Evolution Catalyst in Wide pH Condition. <i>ChemistrySelect</i> 2019, 4, 378-386
15	Basu, M., Nanotubes of NiCo <sub>2</sub> S <sub>4</sub> /Co <sub>9</sub> S <sub>8</sub> Hetero-structure: Efficient Hydrogen Evolution Catalyst in Alkaline Medium. <i>Chem. Asian J.</i> 2018, 13, 3204 – 3211.
16	Sharma, M. D.; Mahala, C.; Basu, M., Nanosheets of MoSe <sub>2</sub> @M (M= Pd and Rh) Function as Widespread pH Tolerable Hydrogen Evolution Catalyst. <i>J. Colloid Interface Sci.</i> , 2019, 534, 131-141.
17	Basu, M., In-situ developed Carbon Spheres Function as Promising Support for Enhanced Activity of Cobalt Oxide in Oxygen Evolution Reaction. <i>J. Colloid Interface Sci.</i> , 2018, 530, 264-273.
18	Mahala, C; Sharma, M. D.; Basu, M., 2D Nanostructures of CoFe <sub>2</sub> O <sub>4</sub> and NiFe <sub>2</sub> O <sub>4</sub> : Efficient Oxygen Evolution Catalyst. <i>Electrochim. Acta</i> , 2018, 273, 462-473.
19	Kumari, S.; Choudhary, A.; Ray, S., The functionality of the hybrid systems driven by molecular dimension of the guest copper Schiff-base complexes entrapped in Zeolite-Y. <i>Appl Organometal Chem.</i> 2019; e4765, DOI: 10.1002/aoc.4765
20	Kumari, S.; Maddipoti, K.; Das, B.; Ray, S., Palladium-Schiff Base Complexes Encapsulated in Zeolite-Y Host: Functionality Controlled by the Structure of a Guest Complex. <i>Inorg. Chem.</i> , 2019, 58 (2), 1527–1540.
21	Recyclable imidazolium ion-tagged nickel catalyst for microwave-assisted C–S cross-coupling in water using sulfonyl hydrazide as the sulfur source, Vaishali Saini, Bharti Khungar, <i>New J. Chem.</i> , 2018, 42, 12796-12801.
22	A. Singh, N. A. Mir, S. Choudhary, D. Singh, P. Sharma, R. Kant, and Indresh Kumar; One-pot sequential multicomponent reaction between in situ generated aldimines and succinaldehyde: facile synthesis of substituted pyrrole-3-carbaldehydes and applications towards medicinally important fused heterocycles, <i>RSC Adv.</i> , 2018, 8, 15448.
23	S. Choudhary, A. P. Pawar, J. Yadav, D. K. Sharma, R. Kant, and Indresh Kumar; One-Pot Synthesis of Chiral Tetracyclic Dibenzo[ <i>b,f</i> ][1,4]oxazepine-Fused 1,2-Dihydropyridines (DHPs) under Metal-Free Conditions, <i>J. Org. Chem.</i> , 2018, 83, 9231.
24	S. Choudhary, A. Singh, J. Yadav, N. A. Mir, S. Anthal, R. Kant, and Indresh Kumar; A simple entry to tetracyclic oxazepine-fused pyrroles via metal-free [3+2] annulation between dibenzo[ <i>b,f</i> ][1,4]oxazepines and aqueous succinaldehyde, <i>New J. Chem.</i> , 2019, 43, 953.
25	Sunita Kumari, Sonu, Sayantan Halder, Rishika Aggrawal, Ganapathisubramanian Sundar, Subit Kumar Saha, Effect of Urea on Solvation Dynamics and Rotational Relaxation of Coumarin 480 in Aqueous Micelles of Cationic Gemini Surfactants with Different Spacer Groups,
26	Sayantan Halder, Sunita Kumari, Sugam Kumar, Vinod K. Aswal, and Subit K. Saha, Fluorescence Resonance Energy Transfer, Small Angle Neutron Scattering, and Dynamic Light Scattering Study on Interactions of Gemini Surfactants having Different Spacer Groups with Protein at Various Regions of Binding Isotherms, <i>ACS Omega</i> , 2018, 3, 11192.

### C. CONFERENCES ATTENDED/PAPERS PRESENTED

1. Devesh S. Agarwal, Vagolu Siva Krishna, Samrat Mazumdar, Hasitha Shilpa Anantaraju, Rajnish Prakash Singh, K. Lohitesh, Dharmarajan Sriram, Perumal Yogeewari, Prabhat N. Jha, Rajdeep Chowdhury, Deepak Chitkara, and Rajeev Sakhuja " Design, Synthesis, Characterization and Biological Evaluation of Amide Conjugates of Cholic Acid and Deoxycholic Acid" at Frontiers in Chemical Sciences organized by IIT Guwahati during December 6-8, 2018,
2. Devesh S. Agarwal, Samrat Mazumdar, Saurabh Sharma, Deepak Chitkara and Rajeev Sakhuja, "Design, Synthesis, Characterization and Anticancer Evaluation of Bile acid linked aryl ketones via triazoles" at International Conference on Frontiers at the Chemistry-Allied Sciences Interface (FCASI 2018) organized by University of Rajasthan during December 21-22, 2018.
3. Aabid Hamid and Ram Kinkar Roy, "Solvent effect on stabilization energy: an approach based on density functional reactivity theory (DFRT)" at International Conference on Frontiers at the Chemistry-Allied Sciences Interface (FCASI 2018) organized by University of Rajasthan during December 21-22, 2018.

4. Ajay K. Sah, Metal complexes of 4,6-*O*-ethylidene- $\beta$ -D-glucopyranose derivatives and their selected applications, SGBT 2018, held at IISER Kolkata during 19<sup>th</sup> – 21<sup>st</sup> December 2018
5. Indresh Kumar; *Glutaraldehyde as a suitable substrate for aminocatalytic annulation reactions: Synthesis of medium-sized N-heterocyclic compounds* during 24<sup>th</sup> ISCB International Conference (ISCBC-2018) from January 11-13, 2018, at Department of Chemistry, Manipal University, Jaipur.
6. Indresh Kumar attended Tohoku University Chemistry Summer School 2018 During 27-28 August 2018 at Sendai.

D. BOOKS PUBLISHED/EDITED DURING THE YEAR: - Nil

E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED: NIL

F. INVITED TALKS GIVEN BY BITS FACULTY

Faculty members of the department delivered invited lectures at following conferences/symposia during the year.

1. Rajeev Sakhuja, Invited Lecture entitled "*Harvesting fused & functionalized azaheterocycles: Promising pharmacophores for drug development*" at 70<sup>th</sup> Southeastern meeting of American Chemical Society (SERMACS), during October 31-November 03, 2018 in Augusta, GA, USA.
2. Surojit Pande, Invited lecture on "Graphitic-Carbon Nitride (g-C<sub>3</sub>N<sub>4</sub>): A stable substrate for decoration of metal and sulphide nanoparticles for hydrogen evolution" at CEAMCR-2018 on February 15-17, 2018, at DAE convention centre, BARC Mumbai.
3. Surojit Pande, Invited lecture on "Decoration of metal, sulphide, and oxide nanoparticles on graphitic-carbon nitride (g-C<sub>3</sub>N<sub>4</sub>) for hydrogen evolution" at FCASI-2018 on December 21-22, 2018, at University of Rajasthan, Jaipur
4. Ram Kinkar Roy, Invited Lecture on "Variation of stabilization energy with solvent polarity: a density functional reactivity theory (DFRT) based approach" at SSD-2018 (North-West Discussion Meeting on Spectroscopy, Structure and Dynamics on March 16-18, 2018 at MNIT Jaipur,
5. Mrinmoyee Basu, Invited lecture on "Heterostructure of Metal Chalcogenide Nanotubes: Efficient Hydrogen Evolution Catalyst in Alkaline Medium" at FCASI-2018 on December 21-22, 2018, at University of Rajasthan, Jaipur
6. H. Joshi, Molecular Double-Dutch: Multiring Metal Complexes that Really Know how to Jump. *Frontiers at the Chemistry-Allied Sciences Interface (FCASI-2018)*, University of Rajasthan, Jaipur, 21-22, December 2018.
7. Indresh Kumar; Invited Lecture entitled "Glutaraldehyde as a suitable substrate for aminocatalytic annulation reactions: Synthesis of medium-sized N-heterocyclic compounds" during 24<sup>th</sup> ISCB International Conference (ISCBC-2018) from January 11-13, 2018, at Department of Chemistry, Manipal University, Jaipur.
8. Indresh Kumar; Invited Lecture entitled "Dicarbonyls as suitable substrates for aminocatalytic annulation reactions: Synthesis of medium-sized N-heterocyclic compounds" at National Chemical Laboratory (CSIR), Pune on June 29, 2018.
9. Indresh Kumar; Invited Lecture entitled "Linear dicarbonyls as suitable substrates for amine catalyzed transformations: Synthesis of medium-sized N-heterocyclic compound" at Tokyo University of Science, Tokyo (Japan), on August 23, 2018.
10. Indresh Kumar; Invited Lecture entitled "Linear dicarbonyls as suitable substrates for amine catalyzed transformations: Synthesis of medium-sized N-heterocyclic compound" at Tohoku University, Sendai (Japan), on August 29, 2018.
11. Indresh Kumar; Invited Lecture entitled "Linear dicarbonyls as suitable substrates for amine catalyzed transformations: Synthesis of medium-sized N-heterocyclic compound" at Hiroshima University (Japan), on August 31, 2018.
12. Indresh Kumar; Invited Lecture entitled "*Linear dicarbonyls as suitable substrates for amine catalyzed transformations: Synthesis of medium-sized N-heterocyclic compound*" at Tel Aviv University, Tel Aviv (Israel), on December 25, 2018.
13. Indresh Kumar; Invited Lecture entitled "*Linear dicarbonyls as suitable substrates for amine catalyzed transformations: Synthesis of medium-sized N-heterocyclic compound*" during 25<sup>th</sup> ISCB International Conference (ISCBC-2019) at Lucknow during January 12-14, 2019.

14. Subit Kumar Saha; Invited Lecture entitled “*Water dynamics in aqueous micelles of cationic gemini surfactants: Effect of chemical nature of tails and spacer group of surfactants*” at Department of Chemistry, Manipal University, Jaipur on April 14, 2018.

G. INVITED TALKS ARRANGED IN THE DEPARTMENT:

B. L. V. Prasad	Catalysis Division, NCL Pune	Appropriately “dressed” functional nanoparticles: Molecular tools for the manipulation of size, surface chemistry and assemblies of metal nanoparticles	27/08/18
Prof. J. N. Moorthy	IIT Kanpur	Functional Materials Bottom-up de NOVO molecular design	19.11.2018

H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS

1. Prof. I. R. Laskar received INSA visiting professor award
2. Chavi Mahala received best poster presentation award in the International Conference on Electrochemistry in Advanced Materials, Corrosion and Radiopharmaceuticals (CEAMCR-2018), February 15-17, BARC, Mumbai.
3. Mamta Devi Sharma received best poster presentation award in the International Conference on FRONTIERS AT THE CHEMISTRY–ALLIED SCIENCES INTERFACE” on 21-22 December 2018 is being organized at the Department of Chemistry, University of Rajasthan, Jaipur.

I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION

Indresh Kumar; *A Research collaborative visit to Tokyo University of Science, Tohoku University, Hiroshima University (Japan)* (total 12 days, during September-October 2018).

Indresh Kumar; *A Research collaborative visit to Tel Aviv University, Tel Aviv (Israel)* One week during December 2018).

J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR

K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES

APOGEE 2018

(A)Whodunit

A murder mystery plot driven by variety of the detective stories in which the audience is given the opportunity to engage in the same process of deduction throughout the investigation of a crime. The reader or viewer is provided with the clues from which the identity of the perpetrator may be deduced before the story provides the revelation itself at its climax.

This happened in two rounds during APOGEE and saw wide participation and the rounds included :

- i) Investigate through pen paper
- ii) Investigate in chemistry lab

(B) Dexter Laboratory

Dexter's Laboratory is an American comic science fiction animated television series for Cartoon Network and is the first of the network's Cartoon Cartoons. The series follows Dexter, a boy-genius and inventor with a secret laboratory in the basement of his house, who constantly battles his sister Dee Dee in an attempt to keep her out of the lab. This event is organized by chemical, biological and chemistry association during APOGEE. In the last round remaining teams need to perform some basic chemical experiments. Chemistry association take care of the last round.

(C) Paper presentation Session

Paper Presentation means a demonstration of your grasp of the Research Methodology through a sample Research Paper, on a well-defined theme, showing past work done by others. We help the new aspirants by providing them some insight into the previous papers presented and what all can be done in the future in consultation with the concerned faculties.

(D) Experiment Demonstration at APOGEE

A stall was set in front of FD3 at APOGEE where we demonstrated some cool and attracting experiment to the people and the basic mechanism of the experiment was explained to them.

#### Farewell

Farewell to the Batch of 2014 was held at Lecture Theatre Complex followed by student faculty dinner at Vishwakarma Mess, the students of 2014 batch came and received the token of membership and a farewell present (Coffee mug with ID and name engraved on it) from various faculty members. Certificates were given to both the members as well as the post holders of the 2014 batch for their contribution to the Chemistry Association. All the students from various batches got an opportunity to informally interact with various faculty members. The faculty members gave valuable advice to students and wished them the best of luck

#### Talk on Materials Chemistry

A talk was organized by the Association on 27th of August, 2017. The Speaker of the event Dr. BLV Prasad a renowned scientist at National Chemical Laboratory highlighted the importance of Nanosciences in the field of chemistry. The event witnessed immense participation from all on campus chemistry students including PHD. Scholars.

#### Formal Dinner

A formal dinner for all the Chemistry Students was organised by the Chemistry Association On 31<sup>st</sup> of August, 2018 at Vfast lawns to welcome the 2019 batch Chemistry students. The dinner saw immense participation from faculty members and Branch Seniors(2nd, 3rd and 4th years) to help out the upcoming batch with academic as well as personal issues they are facing on campus.

#### Informal Interactions

A Get together and interaction of fresher's with 2nd and 3rd year students was held on 25th August 2018 at Rotunda. The juniors were informed about the educational and structural system of the institute and also about the activities of association.

**B1.10.5 Department: Computer Science & Information Systems**Number of faculty members (as on 31<sup>st</sup> December 2018)

Senior Professors, Professors	04
Associate Professors	03
Assistant Professors	16
Lecturers	00
Visiting Faculty	00
Visiting Assistant Professors	01

Head of the Department: Professor Poonam Goyal

Contact details: poonam@pilani.bits-pilani.ac.in

Number of Ph.D. Scholars:

Full Time : 16

Part Time : 02

Aspirant Scheme : 01

**A. SPONSORED RESEARCH ACTIVITIES & FUNDING**

(i) Ongoing projects (Sanctioned Prior to 2018):

1. NIL.

(ii) Projects Sanctioned during the year 2018

1. Dr. Ashutosh Bhatia (PI), Dr. Kamlesh Tiwari (Co-PI) received a sponsored project of Rs.9.295 Lakhs (in value) from CARS for the project titled "Information Gathering from Encrypted Mobile Phone Applications", for one year.

(iii) Projects completed in the year 2017

Prof. Sudeept Mohan (PI), Prof. J P Misra (Co-PI), Dr. Avinash Gautam (Co-PI): a funded research project from CAIR, DRDO entitled "Area Exploration using Miniature Robots", duration 2 years (Nov. 2015 to Nov., 2017) Rs.20.00 Lakhs

(iv) Consultancy Projects completed this year : Nil

**B. PUBLICATIONS**

The faculty of the department published following papers in international refereed journals during the year.

1. N Mehala, Poonam Goyal, D Bhatia, and Navneet Goyal, "Topical Document Clustering: Two Stage Post Processing Technique", In International Journal of Data Mining, Modelling and Management (IJDMMM), 2018 10 (2), pp 127-170.
2. Dhruv Kumar, Poonam Goyal and Navneet Goyal, "An Efficient Method for Batch Updates in OPTICS Cluster Ordering", in International Journal of Data Analysis Techniques and Strategies (IJDATS), 2018, 10(1), pp 57-80.
3. Lavika Goel, Anubhav Garg, "Sentiment Analysis of Social Networking Websites using Gravitational Search Optimization Algorithm", International Journal of Applied Evolutionary computation (IAEC), IGI Global Publications, vol. 9(1), pp. 76-85, 2018..
4. Shashank Gupta, B. B. Gupta and Pooja Chaudhary "A Client-Server JavaScript Code Rewriting-Based Framework to Detect the XSS Worms from Online Social Network" Concurrency and Computation: Practice and Experience, Wiley, 2018.
5. Shashank Gupta and B.B.Gupta, "POND: Polishing the Execution of Nested Context-Familiar Runtime Dynamic Parsing and Sanitization of XSS Worms on Online Edge Servers of Fog Computing" International Journal of Innovative Computing and Applications, Inderscience Publishers, Vol. 9, Issue 2, pp. 116-129, 2018.
6. Shashank Gupta and B.B. Gupta," Evaluation and monitoring of XSS defensive solutions: a survey, open research issues and future directions", Journal of Ambient Intelligence and Humanized Computing, Springer, 2018.
7. Sumedha Sharma, Amit Dua, Mukesh Singh, Neeraj Kumar, Surya Prakash, "Fuzzy rough set based energy management system for self-sustainable smart city," Renewable and Sustainable Energy Reviews, Vol. 82, Part 3, pp. 3633-3644, 2018. (IF. 8.050).

8. Anish Jindal, Amit Dua, Neeraj Kumar, Athanasios V. Vasilakos, Joel J.P.C. Rodrigues, "Providing Healthcare-as-a-Service Using Fuzzy Rule Based Big Data Analytics in Cloud Computing," IEEE Journal of Biomedical and Health Informatics, Vol. 12, No. 5, 2018, (IF: 3.451).
9. J. Jennifer Ranjani, A. Shanthoshini Selvapriya, E. Vijayan, "Secure and Optimized Real Time System for Internet of Medical Things using MATUINO and Thingspeak Analytics", Journal of Testing and Evaluation (IF: 0.66) (Article in Press).
10. Geetika Arora, Phalguni Gupta and Kamlesh Tiwari, "Fingerprint indexing schemes--A survey", InPress, Neurocomputing, Elsevier 2018
11. Bhargava, R., Arora, S., & Sharma, Y. Neural Network-Based Architecture for Sentiment Analysis in Indian Languages. Journal of Intelligent Systems.2018
12. Bhargava, R., Baoni, A., & Sharma, Y. Composite Sequential Modeling for Identifying Fake Reviews. Journal of Intelligent Systems.2018

### C. CONFERENCES

#### (i) International Conferences papers (outside India):

1. Jagat Sesh Challa, Poonam Goyal, Vijay M Giri, Dhananjay Mantri and Navneet Goyal, "AnySC: Anytime Set-wise Classification of Variable Speed Data Streams", In 2018 IEEE International Conference on Big Data (IEEE Big Data 2018), Seattle, USA
2. Saiyedul Islam, Sundar Balasubramaniam, Shruti Gupta, Shikhar Brajesh, Rohan Badlani, Nitin Labhishetty, Abhinav Baid, Poonam Goyal and Navneet Goyal, "Pattern based Automatic Parallelization of Representative-based Clustering Algorithms", 5th IEEE International Conference on Data Science & Advanced Analytics (DSAA 2018), Turin, Italy, pp. 99-108.
3. Chandramani Chaudhary, Poonam Goyal, Joel R A Moniz, Navneet Goyal and Yi-Ping Phoebe Chen, "Linguistic pattern and cross modality based image retrieval for complex queries", ACM International Conference on Multimedia Retrieval (ICMR 2018), Japan, pp. 257-265.
4. Jagat Sesh Challa, Poonam Goyal, Vijay M. Giri, Dhananjay Mantri and Navneet Goyal, "AnySC: Anytime Set-wise Classification of Variable Speed Data Streams", 2018 IEEE International Conference on Big Data (Big Data 2018), December 10-13, Seattle, USA.
5. Saiyedul Islam, Sundar Balasubramaniam, Shruti Gupta, Shikhar Brajesh, Rohan Badlani, Nitin Labhishetty, Abhinav Baid, Poonam Goyal, and Navneet Goyal, "Pattern based Automatic Parallelization of Representative-based Clustering Algorithms", IEEE International Conference on Data Science and Advanced Analytics (DSAA 2018), October 1-4, Turin, Italy.
6. Chandramani Chaudhary, Poonam Goyal, Joel R A Moniz, Navneet Goyal and Yi-Ping Phoebe Chen, "Linguistic pattern and cross modality based image retrieval for complex queries", In 2018 ACM International Conference on Multimedia Retrieval (ICMR 2018), Yokohama, Japan
7. Avadesh Meduri and Navneet Goyal, "Optical Character Recognition for Sanskrit using Convolution Neural Networks", Accepted at Documents and Systems Conference 2018, DAS 2018. April 24-27, Vienna, Austria.
8. Rohil, M.K., Rohil, D., Rohil, R.K., and Runthala, A., 2018. "Natural Language Interfaces to Domain Specific Knowledge Bases: An Illustration for querying Elements of the Periodic Table". The 17th IEEE International Conference on Cognitive Informatics and Cognitive Computing, July 15-18, 2018. University of California, Berkeley, CA, USA.
9. Amit Dua, Rajat Chaudhary, Gagangeet Singh Aujla, Anish Jindal, Neeraj Kumar, and Joel J.P.C. Rodrigues, "LEASE: Lattice and ECC-based Authentication and Integrity Verification Scheme in E-Healthcare," in IEEE Global Communications Conference 9-13 December 2018, Abu Dhabi, UAE.
10. Santosh Kumar Desai, Amit Dua, Neeraj Kumar, Ashok Kumar Das, Joel J. P. C. Rodrigues, "Demand Response Management using Lattice-Based Cryptography in Smart Grids," in IEEE Global Communications Conference 9-13 December 2018, Abu Dhabi, UAE.
11. Amit Dua, Prateek Sharma, Shivesh Ganju, Anish Jindal, Gagangeet Singh Aujla, Neeraj Kumar, and Joel J.P.C. Rodrigues, "RoVAN: A Rough Set-based Scheme for Cluster Head Selection in Vehicular Ad-hoc Networks," in IEEE Global Communications Conference 9-13 December 2018, Abu Dhabi, UAE.
12. Shubhani Aggarwal, Rajat Chaudhary, Gagangeet Singh Aujla, Anish Jindal, Amit Dua, and Neeraj Kumar, "EnergyChain: Enabling Energy Trading for Smart Homes using Blockchains in Smart Grid Ecosystem," In SmartCitiesSecurity'18: 1st ACM MobiHocWorkshop on Networking and Cybersecurity for Smart Cities, June 25, 2018, Los Angeles, CA, USA.
13. Ameesha Mittal, Geetika Arora, Kamlesh Tiwari, Vandana Dixit Kaushik and Phalguni Gupta. "User Engagement Prediction Using Tweets", Accepted In: International Conference on Intelligent Computing (ICIC-2018), Lecture Notes in Computer Science, vol 10955. Pages 802–808, Springer, Cham 2018

14. Avinash Gautam, Ashish Richhariya, Virendra Singh Shekhawat, Sudeept Mohan, Experimental Evaluation of Multi-robot Online Terrain Coverage Approach, 2018 IEEE International Conference on Robotics and Biomimetics Kuala Lumpur, Malaysia, Dec 12-15, 2018
  15. Ashutosh Bhatia, K. Haribabu, Kartikeya Gupta, and Aakash Sahu, Realization of flexible and scalable VANETs through SDN and virtualization, in Proceedings of 2018 International Conference on Information Networking (ICOIN), Chiang Mai, Thailand, 10-12 Jan, 2018 pp. 280-282 IEEE.
- (ii) Conferences papers presented in India (both, International and National):
1. Sandhya Rathee, Mallikarjun Swamy, K. Haribabu, and Ashutosh Bhatia. 2018. Achieving waypoint enforcement in multi-VLAN hybrid SDN. In Communication Systems & Networks (COMSNETS), 2018 10th International Conference on, 519–521.
  2. Rohil, M.K., and Khandelwal, D., 2018. "Visualization of Solution to Stacking Problem using Graphics and Animation Media". *The 3rd IEEE International Conference for Convergence in Technology*, April 07-08, 2018. The Gateway Hotel, XION Complex, Wakad Road, Pune, India.
  3. Gupta, N., and Rohil, M.K., 2018. "Effect of Illumination and Blur Change on Markerless Image Registration Methods". *The 3rd IEEE International Conference for Convergence in Technology*, April 07-08, 2018. The Gateway Hotel, XION Complex, Wakad Road, Pune, India.
  4. Gupta, Vishal, and Eklavya Sharma. "Mitigating DNS Amplification Attacks Using a Set of Geographically Distributed SDN Routers." 2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI). IEEE, 2018.
  5. Gupta, Vishal, and Shivam Gupta. "Reducing DNSSEC Packet Size using Memorization in SDN environment." 2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI). IEEE, 2018.
  6. Mittal, Govind and Gupta, Vishal. (2018). KarmaNet: SDN solution to DNS-based Denial-of-Service. In Security in Computing and Communications (SSCC), 2018 6th International Symposium on, Springer.
  7. Gupta, Vishal (2018). A Case Study on Reflective and Blended mode of Teaching Pedagogy in Indian Context. In Improving Synergy Between Teaching And Research In Indian Academia (ISTRIA 2018) March 26-27, 2018.
  8. Anubhav Gupta, Kamlesh Tiwari and KK Gupta. "Scanned to Digital Face Images Matching With Siamese Network", Accepted In: International Conference and Workshops on Recent Advances and Innovations in Engineering (ICRAIE), (InPress) IEEE 2018
  9. Rohit Kumar Kaliyar, Pratik Narang and Anurag Goswami. SMS Spam Filtering on Multiple Background Datasets Using Machine Learning Techniques: A Novel Approach. In IEEE 8th International Advance Computing Conference (IACC), December 2018.
  10. Sharma, Y., & Gupta, S. (2018). Deep Learning Approaches for Question Answering System. *Procedia Computer Science*, 132, 785-794.S
  11. Singh, J., & Sharma, Y. (2018). Encoder-Decoder Architectures for Generating Questions. *Procedia Computer Science*, 132, 1041-1048.
  12. Virendra Singh Shekhawat, Avinash Gautam, Ashish Thakrar, Datacenter Workload Classification and Characterization: An Empirical Approach, 13th IEEE International Conference on Industrial and Information System, 1-2 Dec 2018, IIT Ropar, India.
  13. Abhineet Saxena, Vinit Kumar Siriah, Vandana Agarwal, 'A Vector-based EEG Signal Feature Extraction Technique for BCI Applications', Conference on Information and Communication Technology (CICT-2018), held at Indian Institute of Information Technology, Design and Manufacturing Jabalpur, India during October 26-28, 2018
- D. BOOKS PUBLISHED/EDITED/CHAPTER WRITTEN DURING THE YEAR:
1. Shashank Gupta and B. B. Gupta, "Security in Wireless Lan and WiMax Systems", Computer and Cyber Security: Principles, Algorithm, Applications, and Perspectives, CRC Press, Taylor and Francis, 2018.
  2. J. Jennifer Ranjani, "Quantum Image Processing and its Applications", Handbook of Multimedia Information Security: Techniques and Applications, Multimedia Tools and Applications, Springer. (Accepted for Publication)
  3. Kamlesh Tiwari and Phalguni Gupta. "Certain Challenges in Biometrics System Development", Accepted In: Models and Techniques for Intelligent Systems and Automation. Communications in Computer and Information Science series, Volume 844, pp 113–123, ISBN 978-981-13-0716-4, Springer, 2018
  4. Geetika Arora, Kamlesh Tiwari and Phalguni Gupta. "Indexing for Healthcare Biometric Databases", Accepted In: Handbook of Research on Healthcare Biometrics, In-Press, IGI Global, 2018.

## E. CONFERENCES, SEMINARS &amp; WORKSHOPS CONDUCTED:

1. Kamlesh Tiwari, International Workshop on Applied Machine Learning (IWAML-2018) February 19-23, 2018 at NITTTTR, Kolkata. (Link <http://www.nittrkol.ac.in/iwaml2018/>)
2. Kamlesh Tiwari, International Workshop on Applied Deep Learning (IWADL-2018) July 16-20, 2018 at IIT Mandi. (Link <http://www.ktiwari.in/iwadl2018/>)
3. Kamlesh Tiwari, Organized a one-day-workshop on entrepreneurship for the students at PS1 station in Lucknow on July-07, 2018 at "Tata Institute of Social Science, Lucknow Training Centre".
4. Kamlesh Tiwari, Microsoft Azure Machine Learning Workshop has been conducted at CSIS Department from Nov 09-11, 2018

## F. INVITED TALKS GIVEN BY BITS FACULTY

1. Poonam Goyal delivered a talk on "Mining Data Streams" at Manipal University, Jaipur on 30<sup>th</sup> Oct, 2018.
2. Lavika Goel, "Soft computing and its applications" by the Director, BKBIET, Pilani, Rajasthan as a part of faculty development program on 6<sup>th</sup> April 2018.
3. Mukesh Kumar Rohil; "Prolog and LISP Programming for Some Artificial Intelligence Applications in Engineering"; Sept 13, 2018; TEQIP-III Sponsored Three-Day Faculty Development Program on Applications of Artificial Intelligence in Engineering; Organized by Rajasthan Technical University (RTU), Kota and APEX Institute of Engineering & Technology (AIET), Jaipur; Held at AIET, Jaipur, Rajasthan, India.
4. Amit Dua, "Disaster Management using communication systems", conducted workshop at Vidya Devi Jindal School, sponsored by Atal Tinkering Program, August 21, 2018, Hisar, Haryana.
5. Kamlesh Tiwari participated in Panel Discussion on "Innovation and entrepreneurship centered around student" at Microsoft Imagine Cup India Final 2018 happened at New Delhi on April 20, 2018
6. Kamlesh Tiwari delivered a talk during the Faculty Development Program on "Big Data and machine Learning" at Biyani Institute of Science and Management, Jaipur, Rajasthan on May 18, 2018
7. Kamlesh Tiwari, delivered a talk on "Deep Reinforcement Learning" at Central University Rajasthan in Department of Data Science and Analytics on Oct 13, 2018
8. Navneet Goyal, delivered a talk on "Machine Learning-challenges and Opportunities" at Manipal University, Jaipur on 31<sup>st</sup> Oct, 2018.

## G. INVITED TALKS ARRANGED IN THE DEPARTMENT

1. Dr. Anand Rao, distinguished alumni awardee of BITS Pilani gave a lecture on "Challenges in AI and ML" on Dec 10, 2018

## H. AWARDS AND RECOGNITIONS WON BY FACULTY: NIL

1. Pratik Narang, recipient of NVIDIA Academic GPU Grant, August 2018.

## I. AWARDS AND RECOGNITIONS WON BY STUDENTS

1. NIKHIL RANJAN (2015B1A70773P) and Garv Sachdeva (2015B4A70551P), students of participated in International Hackathon "Hack.Moscow" in Russia during Oct 26-28, 2018 and have secured second rank in Clever Bots Voice Analysis Track.
2. SIDDHANT DANGI (2017A7PS0074P), student of Computer Science won 2<sup>nd</sup> prize in Easy Ride Prototype & Design Competition held from during 22-23 January, 2018 organized by Vel Tec Rangarajan Dr. Sagunthala R & D Institute of Science and Technology and French Embassy in India as a part of Bonjour India.
3. PRATEEK AGARAWAL (2015B3A70713P), student of Computer Science selected for "Rajasthan Student Startup Program" an all-expense paid knowledge tour to San Francisco, California (USA) for 15 days. The Program was conducted by the government of Rajasthan during June - July in 2017
4. ROHIT K BHARADWAJ, (2017B4A70633P) received a scholarship Rs.80,000 from the INSPIRE-SHE Scholarship of Govt. of India, Ministry of Science & Technology, DST, New Delhi in 2017-18.

## J. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION &amp; INDUSTRY IMMERSION

## Industry Immersion:

1. A team of four members from MapmyIndia visited the CSIS Department and had an interaction with HOD and students about the possible collaboration in AI and ML space on Aug 28, 2018

## Faculty Development:

1. Kamlesh Tiwari attended "Google Faculty Institute" at Google Gurugram on Dec 11, 2018.



## K. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR

S.No.	Software/Equipment	No. of Licenses or Qty.
1.	Mobile Precision 5520 CTO Base (18%) Intel Core Xeon E3-1505M V6 (Laptop)	1
2.	Fire Bird VI4 Wheel Drive Robotic Research Platform, 9 DOF (Degree of Freedom) IMU Consisting of 3 Axis Digital Gyroscope and 3 axis Menetometer, On Board Computer, 2.4 GHz Wireles module on the Robot with USB Module for Robot to PC Communication, Customer built high strenth flight case with robot circle for transportation	2
3.	ROT3U 6DOF Aluminium Robot arm Mechanical	1

## L. DEPARTMENTAL ASSOCIATIONS ACTIVITIES

## 1. List of events organized by the Computer Science Association:

Month	Name of the Event	Date	Venue
	ART signings	23 <sup>rd</sup>	Various Messes
	ART	28 <sup>th</sup> & 29 <sup>th</sup>	LTC 5103
February	Microsoft CodeFunDo	18 <sup>th</sup>	LTC 5105
March	Anticoding	19 <sup>th</sup>	IPC 6117, 6118
	Qurious	21 <sup>st</sup>	(online event)
	Math-e-magic	23 <sup>rd</sup>	(online event)
	ICL	26 <sup>th</sup> & 27 <sup>th</sup>	(online event)
April	Executive Com. Declaration	17 <sup>th</sup>	SAC
	Farewell and Grub	28 <sup>th</sup>	LTC 5102 & VKB Mess
	Apogee Review Meet	28 <sup>th</sup>	SAC Amphi
August	Recruitment Planning meet	14 <sup>th</sup>	SAC
	CSA Recruitments	18 <sup>th</sup>	LTC 5102
September	Competitive Coding Special Interest Group (CPSIG)	13 <sup>th</sup>	LTC 5101
	Mindturner	15 <sup>th</sup>	LTC 5102
	CPSIG	18 <sup>th</sup>	LTC 5101
	CPSIG	20 <sup>th</sup>	LTC 5101
	CPSIG	22 <sup>nd</sup>	LTC 5101
	CPSIG	25 <sup>th</sup>	LTC 5101
	CPSIG	27 <sup>th</sup>	LTC 5101
	CPSIG	29 <sup>th</sup>	LTC 5101
October	CPSIG	25 <sup>th</sup>	LTC 5101
	CPSIG	27 <sup>th</sup>	LTC 5101
	CPSIG	30 <sup>th</sup>	LTC 5101
November	Intra CSA Apogee Meet	23 <sup>rd</sup>	SAC
	Farewell and Grub	25 <sup>th</sup>	LTC 5102 & VKB Mess

## 2. Industry -driven Student Workshops at the Department:

1. Microsoft Azure Machine Learning workshop held at the Deptarment from 09-11-2018 to 11-11-2018.

**B1.10.6 Department: Economics and Finance**Number of faculty members (as on 31<sup>st</sup> December, 2018)

Professor	02
Associate Professor	01
Assistant Professor	05
Visiting faculty and lecturer	0

Head of the Department: Prof. Arun Kumar Giri

Contact details: akgiri@pilani.bits-pilani.ac.in

Number of PhD Scholars: 09

Ph.D. Thesis Submitted during the year: NIL

**A. SPONSORED RESEARCH ACTIVITIES & FUNDING**

Ongoing projects:

1. Environmental and Economic Implications of British Columbia's Carbon Tax for India, funded by BITS Pilani as Research Initiation Grant: Dr. Monika Gupta

Projects Sanctioned during the year:

- 1."Concurrent Evaluation of the Implementation of National Food Security Act (NFSA) Funded by Ministry of Consumer Affairs, Food and Public Distribution for Three States of India: Rajasthan, Madhya Pradesh, And Goa. Nodal Faculty: Dr. Arun Kumar Vaish, Other faculty members: Prof. S Routray and Dr. Krishna M.

Projects completed in the year:

1. Economic Appraisal of Renewables Versus Non-renewables: A Case of Rajasthan, Research Project sponsored by ICSSR, Government of India, 2017-2018. (Dr. Krishna M.)

Consultancy Projects completed this year: NIL

**B. PUBLICATIONS**

S No	Title of paper	Authors	Name of Journal	Volume & page number
1	Global Energy, Environment and Transportation Sector – Issues, Challenges and Future Prospects,	Arya Kumar	The proceedings of 2018 International Conference on Business and Economics , Seoul, KOREA,	June 25-27, 2018, pp.71-73, 2018
2	Decomposing the Role of Different Factors in CO <sub>2</sub> Emissions Increase in South Asia	Monika Gupta	Studies in Business and Economics	Accepted for publication
3	The impacts of financial development, economic growth, income inequality on poverty: evidence from India	Madhu Sehrawat and A.K. Giri	Empirical Economics (Springer Publications)	Vol. 55, No.4, pp.1585-1602, 2018
4	Testing the Sustainability of Current Accounts for Major South Asian Economies: A Panel Data Approach	Shruti Shastri, A.K. Giri, Geetilaxmi Mohapatra	South Asian Economic Journal (Sage Publications)	Vol. 19, No.1, pp.1-21, 2018
5	An Empirical Assessment of Current Accounts Sustainability for Major South Asian Economies	Shruti Shastri, A.K. Giri, Geetilaxmi Mohapatra	South Asian Journal of Business Studies (Emerald Publications)	Vol. 7, No.2, pp.172-188, 2018
6	Globalization, role of institutions and economic performance in Indian economy: Empirical evidence	Madhu Sehrawat and A.K. Giri	Journal of Economic and Financial Policy (Emerald Publications)	Published in Early Cite
7	Infrastructure financing and economic growth in India: An Empirical Investigation	N V M Rao and Chotia, V.	Journal of Financial Management of Property and Construction (Emerald Publication)	Vol. 23 Issue: 3, pp.258-273, 2018

S No	Title of paper	Authors	Name of Journal	Volume & page number
8	Contribution of Corporate Social Responsibility towards India in Achieving Inclusive Growth	N V M Rao, AK Vaish and Jyothi Tanwar	IASSI Journal	IASSI Issue no. 3 July-Sep, 2018
9	Estimating the Efficiency of Public Infrastructure Investment: A State Wise Analysis	N V M Rao, M Saxena and Chotia, V.	Global Business Review (Sage Publications)	Vol. 19, Issue 4, pp.1037-1049, 2018
10	Estimating the Determinants of Public Private Partnerships in Infrastructure: The Case of India	N V M Rao and Chotia, V.	International journal of Critical Infrastructures (Inderscience Publishers)	Vol. 14, Issue 3, pp.248-267, 2018
11	Investigating the effect of dopant type and concentration on TiO <sub>2</sub> powder microstructure via rietveld analysis	A. Rao , V.S. Pundir , A. Tiwari Y. Padarathi, N.V.M. Rao , S. Aich, B. Roy	Journal of Physics and Chemistry of Solids (Elsevier Publication)	Vol. 113, pp 164–176, 2018
12	An Assessment of the Role of IPO Grades in Improving Investor Confidence: Evidence from India	N V Rao, Smita Kashiramka, Nisha Mary Thomas, Surendra Singh Yadav	South Asian Journal of Management (SAJM)	Vol. 25.Issue 3, pp 32-54, 2018

C. CONFERENCES/WORKSHOP/SEMINAR ORGANIZED/CONDUCTED BY THE DEPARTMENT: NIL

D. CONFERENCES/WORKSHOP/SEMINAR ATTENDED/ PAPERS PRESENTED BY FACULTY:

a. INTERNATIONAL: 04

b. NATIONAL: 04

SNo	Title of Seminar	Name of University/Department	Date
1	Prof. Arya Kumar presented a paper o Global Energy, Environment and Transportation Sector – Issues, Challenges and Future Prospects, presented in the 2018 International Conference on Business and Economics (Prof. Arya Kumar)	14th KODISA International Conference, Seoul National University, Seoul, KOREA	June 25-27, 2018.
2	Dr. Monika Gupta attended a workshop on Energy and Environmental CGE Modeling with GAMS	Dept of Statistics and Applied Probability, National University of Singapore (NUS)	January 2018
3.	Dr. Monika Gupta has presented a paper on Measuring Effectiveness of Carbon Tax on Indian Road Passenger Transport: A System Dynamics Approach	41st IAEE (International Association for Energy Economics) International Conference in Groningen, Netherlands	June 2018
4.	Dr. A. K. Vaish presented a paper on Financial Inclusion- An Empirical analysis of Business Correspondent Model	12 <sup>th</sup> Annual Conference “Data Driven Decision Making in the Digital Age, SPJIMR Mumbai organized by ISDSI.	December 27-30, 2018
5.	Dr. A K Vaish Presented a paper on “Financial Inclusion and Beyond: A Paradigm Shift in Indian Banking Sector	International Conference on Economics and Business Management(ICEBM) at Pattaya, Thailand	22nd - 23rd June, 2018
6	Reinvent The Way You Work : Business Transformation (Prof. N V M Rao)	Organised by HP enterprises and Inell at Oberai, New Delhi	27 April 2018
7	Business Transformation- Innovate to a Future State. Transform It (Prof. N V M Rao)	Organised by Intell and Dell at the Leela Palace, Bangalore	19-20 April, 2018
8	Assessors Orientation Programme – AOP of NAAC (Prof. N V M Rao)	Organised by NAAC, at NAAC Bangalore	25-26 Oct 2018

E. BOOKS PUBLISHED OR WRITTEN DURING THE YEAR: NIL

## F. INVITED TALKS GIVEN BY BITS FACULTY:

1. Prof. Arya Kumar Chaired a session in the National Workshop on Improving Synergy between Teaching and Research in Indian Academia organized by BITS Pilani during 26-27, March 2018.
2. Invited talk by Prof. Arya Kumar on Technology Driven Start-ups - How and Where to Start? Delivered in the 6th Indo German Workshop on Sustainable Manufacturing & Entrepreneurship jointly organized by BITS Pilani and TU Braunschweig, Germany on 18<sup>th</sup> September 2018.
3. Prof. Arya Kumar delivered expert talk on Academia Industry Linkages – Need for Strategic R&D and IPR's in the National Conference on IPR and Entrepreneurship organised on 19<sup>th</sup> March 2018 by IIT Roorkee.
4. Prof. Arya Kumar, Panelist for Round Table Forum on Asian Ethics and Corporate Social Responsibility Educational Forum in the Corporate Social Responsibility, Sustainability, Ethics & Governance 2018 organized by National Taipei University, Taiwan between 29<sup>th</sup> Sept and Oct 2018.
5. Prof. Arya Kumar, Chaired a session on Business Ethics and Corporate Social Responsibility, in the 2018 Conference of Ethics and Sustainable Development organised between 29<sup>th</sup> Sept. and 2<sup>nd</sup> Oct., 2018 by Graduate Institute of International Business, National Taipei University and Ecological Development Union Asia.

## G. INVITED TALKS ARRANGED BY THE DEPARTMENT (Distinguish Lectures):

Name	Designation	Topic of the Session
Dr. Rajat Kathuria	Director and Chief Executive, Indian Council for Research on International Economic Relations	Analyzing the Union Budget: 2018
Ms. Manasi Kirloskar	Executive Director and CEO, Kirloskar Systems Limited	Women Empowerment in Business Sector
Dr. Vijay Kedia	Renowned Indian investor trader	Introduction to Investment & Trading
Mr. Vishal Kamat	CEO, Kamat Group of Hotels	Leading an Enterprise in India
Mr. Sanjeev Kapoor	Chief Strategy and Commercial Officer, Vistara	Revival of Spice jet & Rise of Vistara
Dr. Mukesh Garg	Professor at Monash University, Australia	Opportunities in India: An Australian Perspective
Dr. Harish Kumar	BITS Alumnus and Advisor of ALPHABETA, a New York based FinTech Company	Managing Portfolios and Investments
Mr. Parag Jain	Advisor for Aventus Group, USA and a former Official at SEBI	Risk Management in Indian Stock Market

## H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS:

1. Prof. Arya Kumar was Expert Member in the Board of Studies Meeting of BML University to revamp the curriculum on 14<sup>th</sup> April 2018
2. Prof. Arya Kumar was Expert Member in the Board of Studies Meeting of NIIT University Neemrana on 18<sup>th</sup> April 2018.
3. Prof. Arya Kumar was Expert Member of Faculty Selection Committee, NIIT University, Neemrana.
4. Prof. Arya Kumar was Expert Member of Integrated MBA programme Committee Meeting at NIIT University for MBA Programme, 12<sup>th</sup> Oct, NIIT University Neemrana.
5. Prof. Arya Kumar was participated in the Expert committee meeting of BIRAC, DBT, Govt of India to review the progress of UICs on 11<sup>th</sup> Sept 2018.
6. Prof. Arya Kumar was participated in the Meeting organized by MHRD, Govt of India and AICTE on Institution Innovation Council (IIC) on 20<sup>th</sup> Nov 2018 in New Delhi.
7. Prof. Arya Kumar was participated in the CSR-Science Education Partnership Roundtable, organized by India CSR Network March 8, 2018, New Delhi.
8. Prof. Arya Kumar was participated in the CSR – Science Education Partnership Roundtable India CSR on 8<sup>th</sup> March 2018 at PHD Chambers New Delhi.

9. Prof. NVM Rao was appointed as Subject Expert and participated in the “Impact Evaluation of Technical Education Quality Improvement Programme Phase II (TEQIP-II)” – MHRD, GOI and IIT Delhi Project aimed to do an impact evaluation for all 191 institutions covered under TEQIP-II, 2017-18
10. Prof. NVM Rao Chaired a Session and Delivered a Talk on “The Role of Technology in the Higher Education Transformation” at League of Legends Conference held at Dasit Tane, Tahailand, Pattaya, on 02 Dec 2018.
11. Prof. NVM Rao delivered a talk on “Business Transformation and Innovate to a Future State” at Business Transformation and IT Executive Briefing Session at the Leela Palace Bangalore on 19-20 April, 2018.
12. Students of Economics and Finance Department won Best Contingent Award 2018 in the Annual National Economics Symposium of Lady Shri Ram College, Delhi University: Econvista 18, which was held from 18th to 19th January.

#### I. DEPARTMENTAL ASSOCIATION / CLUB ACTIVITIES:

The Economics and Finance Association thrives to provide a unique platform at BITS Pilani campus where students of similar interests can come together and boost each other's growth and progress. EFA tries to foster a culture of Economics, Finance, and Business through organizing and participating in several campus and national level competitions.

The Economics and Finance Association started the academic year of 2018 by winning the Annual National Economics Symposium of Lady Shri Ram College, Delhi University: Econvista 18, which was held from 18th to 19th January.

To spread awareness about the latest happenings in the world of Economics and Finance, EFA published a pan-campus newsletter, which contained articles on the latest topics written by our members in a simplified manner for all the students.

During the month of February, EFA organized five interactive sessions by prominent personalities from the fields of Economics, Finance and Business where students got an opportunity to learn from the experiences of the experts: Dr. Rajat Kathuria (Director and Chief Executive, Indian Council for Research on International Economic Relations), Ms. Manasi Kirloskar (Executive Director and CEO, Kirloskar Systems Limited), Dr. Vijay Kedia (Renowned Indian investor trader), Mr. Vishal Kamat (CEO, Kamat Group of Hotels) and Mr. Sanjeev Kapoor (Chief Strategy and Commercial Officer, Vistara)

During the annual academic festival of BITS Pilani, APOGEE 2018, EFA organized three events [Stock Market Simulation, Bid-Wiser and Night-en-Vegas], which were designed to give students an exposure to the world of Economics and Finance, four of the above-mentioned speaker sessions and a workshop by Bombay Stock Exchange, regarding the basics of Stock market.

EFA also organized an ‘Eco's Day Out’, an evening where the students pursuing M.Sc. Economics got an opportunity to bond with their departmental professors while participating in fun events and short games, in the month of April.

## B1.10.7 Department : Electrical and Electronics Engineering &amp; Instrumentation

Number of faculty members (as on 31 December 2018)

Emeritus Professors, Professors	05
Associate Professors	06
Assistant Professors Grade I	18
Assistant Professors Grade II	6

Head of the Department: Dr. V K Chaubey  
 Contact details: vkc@pilani.bits-pilani.ac.in  
 Number of PhD Scholars: Full time 27, Part time 11

Ph.D. Thesis Submitted during the year : 02

A. Sponsored Research/ development activities:

(i) Ongoing projects:

1. Dr. Karunesh K Gupta is working on his project on “Soft Computing Framework based Integrated Multi Sensor Array for Water Quality Assessment: Targeting Fluoride as major parameter” funded by DST-WTI during Jan 2017. The amount of project is Rs 38.7 Lakhs.
2. Dr. Praveen Kumar AV is working on his project on “Development of Dielectric Resonator based Displacement Sensor”, funded by DST-SERB during Sep 2018. The amount of project is Rs. 20.75 Lakhs.
3. Dr. Arnab Hazra is working on his project on “Development of TiO<sub>2</sub> nanotube based highly selective capacitive type sensor device for the detection of methanol poisoning in alcoholic beverages, funded by DST-SERB during Sep 2016. The amount of project is Rs. 28 Lakhs.
4. Prof. Navneet Gupta (PI) completed one year of his DRDO funded project on “Study of Electrical Behaviour of Nanocrystalline Silicon Thin-Film Transistor (nc-TFT) during Sep 2018.
5. Prof. Navneet Gupta (Mentor) and Dr. Pramila Mahala (PDF) completed one year of SERB-DST funded project on “Development of Nanostructured Graphene as a Transparent and Current Spreading Electrode in Solar Cells” during August 2018.

(ii) Projects sanctioned/Approved during the year 2018.

1. Dr. H. D. Mathur got the approval for his project on “IoT based energy management system of a microgrid with vehicle to grid feature” funded by DST-ICPS. The amount of project is Rs. 50 Lakhs.
2. Dr. Vinay Chamola received a project grant from funding agency: Nvidia. Title of project: GPU based Brain computer interface applications, Grant amount: 1.5 lakhs, Role: Principal Investigator (PI)
3. Dr. Meetha.V.Shenoy received a project grant from funding agency: Nvidia. Title of project: Deployment of Swarm of Robots in surveillance, Grant amount: 0.5 lakhs, Role: Principal Investigator (PI)
4. Dr. Rupam Goswami got approval for a phase-wise funded project (Phase 1 (POC): Rs. 18000; Letter No. 2768; sanctioned on August 21, 2018) titled ‘Charcoal Based Low Cost Smart Sensor for Agriculture’ under National Programme on Management of Soil Health and Fertility (NPMSHF) scheme, Department of Agriculture and Farmers' Empowerment, Govt. of Odisha, India
5. Dr. K. K. Gupta ( Co-PI) received approval for a collaborative project with Prof. A. P. Singh, Civil department and Dr. S. A. Akbar, CEERI, Pilani on “Development of Cyber Physical System based Smart Water Grid for Community usage” funded by DST-ICPS. The amount of project is Rs. 70 Lakhs.
6. Dr. K. K. Gupta received approval for a collaborative project with Prof. S. B. Singh, Civil department and Dr. K. S. Raju, CEERI, Pilani on “Structural Health Assessment and Rehabilitation Framework based on Cyber Physical System” funded by DST-ICPS. The amount of project is Rs. 70 Lakhs.

(iii) Projects completed

1. Prof. Navneet Gupta, Dr. Kavindra Kandpal and Prof. Chandra Shekhar completed a Collaborative R&D Research Projects (between BITS Pilani and CSIR-CEERI Pilani) on “Investigation of leakage current

density and threshold voltage shift in ZnO TFT with high k-dielectrics” on May 2018.

(iv) Consultancy Projects completed this year: Nil

#### B. Publications:

The faculty of the department published 36 papers in international/national refereed journals during the year. (Scopus and SCI indexed)

- [1] Devesh Samaiya and K. K. Gupta, "Intelligent Video Surveillance for Real Time Energy Savings in Smart Buildings using HEVC Compressed domain Features," *Journal of Multimedia Tools and Applications*, Springer, vol 77, issue 21, pp. 29059-72, 2018, SCI
- [2] Parul Taneja, V. Manjuladevi, K. K. Gupta, and Raj Kumar Gupta, "Detection of cadmium ion in aqueous medium by simultaneous measurement of Piezoelectric and electrochemical responses," *Journal of Sensors and Actuators B*, Elsevier, vol 268, pp. 144-149, 2018, SCI.
- [3] S. Mohanty, K. K. Gupta, K. S. Raju, "Hurst based Vibro-acoustic Feature Extraction of Bearing using EMD and VMD," *Measurement: Journal of International Measurement Confederation*, Elsevier, vol-117, pp. 200 - 220, 2018, SCI.
- [4] J. Bhardwaj, K. K. Gupta, and R. Gupta, "Towards Cyber Physical Era: Soft Computing framework based Multi-Sensor Array for Water Quality Monitoring," *Journal of Drinking Water Engineering and Science*, vol. 11, no. 1, pp 9-17, 2018, Scopus.
- [5] Vineet Kumar, Abhijit Asati and Anu Gupta, "Memory-Efficient Architecture of Circle Hough Transform and its FPGA Implementation for Iris Localization," *IET Image Processing*, Volume 12, Issue 10, pp. 1753 – 1761, October 2018. DOI: 10.1049/iet-ipr.2017.1167 , Print ISSN 1751-9659, Online ISSN 1751-9667--SCI Indexed
- [6] Anu Gupta Priya Gupta, and Abhijit Asati, Novel Low Power and Stable SRAM Cells for Subthreshold operation at 45 nm" *International Journal of Electronics*, Vol. 105, No. 8, February 2018. (DOI:10.1080/00207217.2018.1440437) --SCI, SCI-E, Scopus, Web of Science Indexed
- [7] Harjap Singh Saini and Anu Gupta, "Constant Power Consumption Design of Novel Differential Logic Gate for Immunity against Differential Power Analysis", *IET Circuits, Devices & Systems* (accepted for publication), DOI: [10.1049/iet-cds.2018.5093](https://doi.org/10.1049/iet-cds.2018.5093) , Print ISSN 1751-858X, Online ISSN 1751-8598 Available online: 07 August 2018, SCI Indexed, SCI-E, Scopus, IET Inspec , EI Compendex
- [8] Kavindra Kandpal, Jitendra Singh, Navneet Gupta, Chandra Shekhar, "Effect of thickness on the properties of ZnO thin films prepared by reactive RF sputtering" *Journal of Materials Science: Materials in Electronics*, Springer-Nature, vol 29 (17), 14501-14507, 2018. (SCI and SCOPUS indexed).
- [9] Navneet Gupta and R.Ashwin, "Material selection methodology for radio frequency (RF) microelectromechanical (MEMS) capacitive shunt switch", *Microsystem Technologies*: Springer-Nature, 2018. (SCI indexed) (Online-Feb 2018). DOI: 10.1007/s00542-018-3761-1.
- [10] Pramila Mahala, M.Patel, Navneet Gupta and Joondong Kim "Schottky Junction Interfacial Properties at High Temperature: A Case of AgNWs Embedded Metal Oxide/p-Si" *Physica B*, Elsevier, vol. 537, 228-235, 2018. (SCOPUS indexed).
- [11] Navneet Gupta and Varun Haldiya, "High-k gate dielectric selection for Germanium based CMOS Devices" *Int. J of Nanoelectronics and Materials*, vol 11(2), 119-126, 2018. (SCOPUS indexed).
- [12] Kavindra Kandpal and Navneet Gupta, "Perspective of Zinc Oxide based Thin Film Transistors: A Comprehensive Review" *Microelectronics International*, Emerald Publishing, vol. 35(1), 52-63, 2018. (SCIE and SCOPUS indexed).
- [13] Baikadi Pranay Kumar Reddy, Karri Babu Ravi Teja and Kavindra Kandpal, "Investigation on high-k dielectric for low leakage AlGaIn/GaN MIS-HEMT device, using material selection methodologies", *Semiconductors*, Springer, Vol. 52, No. 4, pp. 420–430, 2018, SCI indexed.
- [14] Ashish Patel, Hitesh Datt Mathur, and Surekha Bhanot, "A new SRF-based power angle control method for UPQC-DG to integrate solar PV into grid", *International Transaction of Electrical Energy Systems*, Wiley, DOI 10.1002/etep.2667, 2018, SCI

- [15] Ashish Patel, Hitesh Datt Mathur, and Surekha Bhanot, "An Improved Control Method for Unified Power Quality Conditioner with Unbalanced Load", *International Journal of Electrical Power and Energy Systems*, Elsevier, vol. 100, pp. 129-138, DOI 10.1016/j.ijepes.2018.02.035, 2018, SCI
- [16] Anuj Kumar Ojha and A.V. Praveen Kumar, *Substrate Size Selection of Microstrip Fed Cylindrical Dielectric Resonator Antennas for Lowering the Cross-polarization*, IET Microwaves, Antennas & Propagation (Institute of Engineering and Technology), Nov. 2018 (doi: 10.1049/iet-map.2018.5136)
- [17] Anuj Kumar Ojha and A.V. Praveen Kumar, *Tradeoffs in the Feed point Selection of a Cylindrical Dielectric Resonator Antenna*, International Journal of Microwave and Wireless Technologies (Cambridge University Press), Volume 10, Issue 10 December 2018, pp. 1196-1203, (<https://doi.org/10.1017/S1759078718001095>)
- [18] Puneet Mishra, Vineet Kumar, K. P. S. Rana, "An efficient method for parameter estimation of a nonlinear system using backtracking search algorithm," *Engineering science and Technology*, (Elsevier), vol. 31, No. 3, pp. 338-350, DOI: 10.1016/j.jestch.2018.03.009, 2018, SCOPUS.
- [19] Aasheesh Shukla, Vishal Goyal, Puneet Mishra, V. K. Deolia, "Cooperative relay beamforming in IDMA communication networks," *Journal of Electrical Engineering*, Vol. 69, No. 4, pp. 300-304, DOI: 10.2478/jee-2018-0042, 2018, SCIE.
- [20] P. Bindra, A. Hazra. "Multi-layered TiO<sub>2</sub> Nanotubes Array based Highly Sensitive Room Temperature Vapor Sensors", *IEEE Transaction on Nanotechnology*, DOI: 10.1109/TNANO.2018.2876555, 2018
- [21] A. Hazra, S. Basu, Graphene nanoribbon as potential on-chip interconnect material- a review, *C Journal on Carbon Research (MDPI)*, Vol. 3, pp-49 (1-27) 2018
- [22] P. Bindra, S. Gangopadhyay, A. Hazra, Au/TiO<sub>2</sub> Nanotubes/Ti-Based Solid-State Vapor Sensor: Efficient Sensing in Resistive and Capacitive Modes, *IEEE Transactions on Electron Devices* vol.65(5), pp-1918-1924, 2018
- [23] P. Bindra, A. Hazra, Impedance behavior of n-type TiO<sub>2</sub> nanotubes porous layer in reducing vapor ambient, *Vacuum (Elsevier)*, vol. 152, pp-78-83, 2018
- [24] Sujan yenuganti, Haifeng Zhang and Chen Zhang, *Langasite crystal based pressure sensor with temperature compensation*, *Sensors and Actuators: A Physical*, 281, 108-116, 2018.
- [25] R Kumar and H O Bansal, "Shunt active power filter: Current status of control techniques and its integration to renewable energy sources", *Sustainable Cities and Society, Elsevier*, Vol. 42, pp 574-592, 2018.
- [26] Abhishek Joshi, Rahul Singhal, Lower mode excitation in vertex-fed slotted hexagonal S-band antenna, *AEU - International Journal of Electronics and Communications*, Volume 87, 2018, Pages 180-185, ISSN 1434-8411
- [27] B. Sainath, Satwik Prabhu K, Naman Gupta "Energy efficient and delay-constrained sleep period optimization for green radio communication," *Physical Communications (An Elsevier Journal)*, *Physical Communication* 30 (2018) 26–32. <https://doi.org/10.1016/j.phycom.2018.07.002> (SCI)
- [28] G.S.S. Chalapathi, Bernhard Etzlinger, S Gurunarayanan and Andreas Springer, "Integrated Cooperative Synchronization for Wireless Sensor Networks," *IEEE Wireless Communication Letters*. (Accepted to appear) DOI: 10.1109/LWC.2018.2885471, 2018, SCI.
- [29] Samuel Smith, Ananthakrishna Chintanpalli, Michael Heinz, and Christian Sumner, "Revisiting Models of Concurrent Vowel Identification: The Critical Case of No Pitch Differences", *Acta Acustica united with Acustica* 104 (5), 922-925. doi: 10.3813/AAA.919244, 2018. SCI and Scopus-indexed.
- [30] Harshavardhan Settibhaktini, and Ananthakrishna Chintanpalli "Modeling the level-dependent changes of concurrent vowel scores", *Journal of the Acoustical Society of America*, vol. (143), 440-449, doi: 10.1121/1.5021330. SCI and Scopus-indexed.
- [31] . Kanika, Shankar, Nitin Chaturvedi, S Gurunarayanan, "A Low Power High Speed MRAM based non-volatile SRAM cell for Energy Harvesting based IoT Applications" *Integration the VLSI Journal*, Elsevier, November 2018, [doi.org/10.1016/j.vlsi.2018.11.002](https://doi.org/10.1016/j.vlsi.2018.11.002)2018. (SCI)



- [32] S Pulipaka, R Kumar, "Analysis of soil distortion factor for photovoltaic modules using particle size composition", *Solar Energy* 161, 90-99.2018.

C. CONFERENCES/WORKSHOP/SEMINAR ATTENDED/ PAPERS PRESENTED:

The faculty of the department presented 43 papers in international/national conferences during the year.

- [1] Ankush C. Jahagirdar, and K. K. Gupta, "Particle Swarm Optimization based Kurtosis Maximization in Fractional Hilbert Transform for Bearing Fault Diagnosis," First International and 4th National Conference on Reliability and Safety Engineering, (INCRS 2018), IIITDM, Jabalpur, Feb 26-28, 2018.
- [2] Ankush C. Jahagirdar, and K. K. Gupta, "Comparative Study of Cepstral Editing and Unitary Sample Shifted Probability Distribution Function method for Bearing Fault Diagnosis," First International and 4th National Conference on Reliability and Safety Engineering, (INCRS 2018), IIITDM, Feb 26-28, 2018.
- [3] J. C. Joshi, Anubhav Gupta, Kamlesh Tiwari, and K. K. Gupta, "Scanned to Digital Face Images Matching with Siamese Network," 3rd IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAI), Nov 22-25, 2018.
- [4] Ankush C. Jahagirdar, S Mohanty and K. K. Gupta, "Study of Noise Effect on Bearing Vibration Signal based on Statistical Parameters," 35th International Conference on Vibroengineering, Bennett University, Noida, Dec 13-15, 2018.
- [5] Abheek Gupta, Anu Gupta, and Rajiv Gupta, "Power and Area Efficient Intelligent Hardware Design for Water Quality Applications", 1st International Conference on on Microelectronic Devices and Technologies (MicDAT '2018) 20-22 June 2018, Barcelona, Spain
- [6] Kalpraj Vaidya , Anu Gupta, and Rajiv Gupta, "High Gain, High Bandwidth Fully Differential low voltage OpAmp Design Using Self-Cascode MOSFET with Adaptive Bias and Common mode Feedback", 1st International Conference on on Microelectronic Devices and Technologies (MicDAT '2018) 20-22 June 2018, Barcelona, Spain
- [7] Pramila Mahala, Sumitra Singh and Navneet Gupta, "Multilayer graphene oxide as an active layer in silicon heterojunction solar cell, *IEEE Electron Device Kolkata Conference* (IEEE-EDKCON), Kolkata, Nov. 24-25, 2018.
- [8] Ankita Dixit and Navneet Gupta, "Analysis of Different Gate Dielectric Materials in Carbon Nanotube Field Effect Transistor (CNFET) using Optimization Technique ", *IEEE Electron Device Kolkata Conference* (2018 IEEE EDKCON), Kolkata, Nov. 24-25, 2018.
- [9] Dev Gupta and Navneet Gupta, "Investigations on Infrared (IR) sensitive material for microbolometer using material selection approaches", *IEEE Electron Device Kolkata Conference* (2018 IEEE EDKCON), Kolkata, Nov. 24-25, 2018.
- [10] Pramila Mahala and Navneet Gupta, "Graphene, PEDOT:PSS and their composites as transparent electrode in heterojunction photovoltaic cells, *Indo-Israel Workshop on Nanoelectronic Materials and Devices* (I2NMD-2018), BITS Pilani, November 2, 2018. [Best Paper Award]
- [11] Srujan Penta and Navneet Gupta, "3D NEGF Quantum transport simulation for modeling ballistic transport in nano FinFETs" *Indo-Israel Workshop on Nanoelectronic Materials and Devices* (I2NMD-2018), BITS Pilani, November 2, 2018. [Best Paper Award].
- [12] Amrithaa Seshadri and Navneet Gupta, "Modeling and Analysis of Metamaterial Based Antenna for Wi-Fi and Wlan Applications" *Int. conf. on Communication, Devices and Networking* (ICCDN-2018), June 3-4, 2018, Sikkim Manipal Institute of Technology, Sikkim.
- [13] Pramila Mahala, Ankita Dixit and Navneet Gupta, "Analysis of Graphene/SiO<sub>2</sub>/p-Si Schottky Diode by Current-Voltage and Impedance Measurements" *Int. Conf. on Signal Processing and Communication* (ICSC), JIIT Noida, March 21-23, 2018.
- [14] Ashish Patel, Hitesh Datt Mathur, and Surekha Bhanot, "Improving Performance of UPQC-DG for Compensation of Unbalanced Loads", 2018 8th IEEE India International Conference on Power Electronics, Jaipur, December 13-15 2018
- [15] Shraddha Maslekar, Rohit Venkatesh, Dhananjay Kumar, Hitesh Dutt Mathur, "Development of a Novel Strategy with Electrical Vehicles to Mitigate Frequency Aberration in Microgrid", In the proceedings of 2nd IEEE International Conference on Energy, Power and Environment (ICEPE 2018), June 1-2, 2018, Shillong, India.
- [16] A.V. Praveen Kumar and Anuj Kumar Ojha, "Cross-Polarization Reduction of a Cylindrical Dielectric Resonator Antenna with Parasitic Strip Loading", International Conference on Signal Processing and Communication (SPCOM2018), IISc Bangalore, 16-19 July 2018

- [17] A. Hazra, Device modeling of TiO<sub>2</sub> nanotube array for resistive and capacitive mode vapor sensing, International Functional Nanomaterials and Nanodevice Conference, Vienna, Austria, Sept. 2-5, 2018
- [18] A. Hazra, Device Modeling of Double Layered TiO<sub>2</sub> Nanotube Array based Resistive Vapor Sensor, IEEE EDCKON 2018, Kolkata, 24-25, November, 2018
- [19] P. Bindra, A. Hazra, Highly sensitive capacitive type ethanol sensors based on double layer TiO<sub>2</sub> nanotubes array, International Workshop on Nano-Micro 2D-3D Fabrication, Manufacturing of Electronic-Biomedical Devices and Applications, IIT Mandi, 31 Sep–2 Oct 2018
- [20] T. Gakhar, A. Hazra, Improvement of Methanol Sensing by GO loaded TiO<sub>2</sub> nanotubes array at room temperature, National Conference on Advanced Nanomaterials and their Applications (ANA 2018), Dec. 21-23, 2018, MNNIT, Allahabad, India
- [21] P. Bindra, A. Hazra, Hydrothermal synthesis of 1-D TiO<sub>2</sub> nanorods on Ti substrate for efficient vapor sensing, International Conference on Nano-Structured Materials & Devices, University Of Delhi, 17-20 Dec 2018.
- [22] T. Gakhar, S. Gangopadhyay, A. Hazra Synthesis of TiO<sub>2</sub> nanotube array with variable oxygen vacancy by chemical reduction method, Second International Conference on Nano Science and Engineering Applications, Oct. 4-6, 2018, JNTU, Hyderabad, India
- [23] P. Bindra, A. Hazra, Double layer TiO<sub>2</sub> nanotubes based sensor for methanol detection at room temperature, International Functional Nanomaterials and Nanodevice Conference, Sept. 2-5, 2018, Vienna, Austria
- [24] S. Choudhary, A. Agarwal, V. Saini, A. Hazra, S. Gangopadhyay, Growth and characterization of ZnO nanostructures: materials for CO and ethanol sensing, International Conference on Computational Mathematics in Nanoelectronics and Astrophysics, Nov. 1-3, 2018, IIT Indore, India
- [25] S. Choudhary, A. Agarwal, V. Saini, A. Hazra, S. Gangopadhyay, CO gas-sensing at low temperature using CuO thin films, IEEE Sensors, October 28-31, 2018 New Delhi, India
- [26] T. Gakhar, P. Bindra, A. Hazra, TiO<sub>2</sub> Nanoflowers based Methanol Sensor, Indo-Israel Workshop on Nanoelectronics Materials & Devices, BITS-Pilani, 2<sup>nd</sup> November, 2018
- [27] A. Hazra, Qualitative and quantitative understanding of TiO<sub>2</sub> nanotubes based sensor for efficient detection of organic vapors, Indo-Israel Workshop on Nanoelectronics Materials & Devices, BITS-Pilani, 2<sup>nd</sup> November, 2018
- [28] R Kumar and HO Bansal, "Design and Control of Wind integrated Shunt Active Power Filter to Improve Power Quality", 8<sup>th</sup> IEEE Power India International Conference (PIICON-2018), December 10-12, 2018 NIT Kurukshetra, India.
- [29] Dave Heema Bharatkumar, Dheerendra Singh, Hari Om Bansal, "High Voltage Gain q-ZSI with Low Inrush Current, 8<sup>th</sup> IEEE International Conference on Power Electronics Drives and Energy Systems, December 18-21, IIT Madras India, 2018.
- [30] KV Singh, R Kumar, HO Bansal, D Singh, "Hardware Realization of a Single-Phase Modified p-q Theory Based Shunt Active Power Filter for Harmonic Compensation", 3rd International Conference on Intelligent Communication, Control and Devices (ICICCD), Springer December 21-22, 2018, UPES Dehradun, India.
- [31] Animesh Jain, Satyam Bhaskar, Kunal Nandanwar and Hari Om Bansal, "Self-balancing of a bike using gyroscopic force & PID Controller", 3rd International Conference on Intelligent Communication, Control and Devices (ICICCD)", Springer December 21-22, 2018, UPES Dehradun, India
- [32] Abhishek Joshi, Rahul Singhal, "Beam Convergence in Antenna Pattern using Conical and Hemispherical Dielectric Lens", in 2018 IEEE Indian Conference on Antennas and Propagation (InCAP), December 16-19, 2018 at HICC, Hyderabad.
- [33] "A Comparative Study of Noise Cancellation Using Least Mean Squares Adaptive Filter and Recurrent Neural Network Filter," Aakriti Agrawal, Rohitkumar Arasanipalai, Sainath Bitragunta, 2018 International Conference on Energy Power and Environment, NIT Meghalaya, India, Jun. 2018.
- [34] "Optimizing the Order of Modulation for Minimized Distortion in Green Communication Networks," Sarthak Jain, Sayan Rudra Pal, B. Sainath, 2018 International Conference on Electronics, Computing and Communication Technologies (IEEE CONECC), Bangalore, India, Mar. 2018. (won best paper award in Networking Protocols and Communication track)
- [35] "Fading-Averaged Symbol Error Probability Analysis of Full Duplex Amplify-and-Forward Relaying over Rayleigh Fading Channels," Rahul Shrotey, B. Sainath, Gaurav Sharma, National Conference on Communications (NCC), IIT Hyderabad, India, Feb. 2018.
- [36] P. Arora, "Nano-Plasmonic devices as optical sensors," I2NMD Workshop at BITS Pilani, 2018.

- [37] Abhimanyu Kakkar, Amit Bhatt, Kavindra Kandpal, Karri Babu Ravi Teja, "Design of Third Order Wide Tuning Range Gm-C Filter for Direct Conversion Receivers" *15<sup>th</sup> IEEE India Council International Conference (INDICON) 2018*, December 16 – 18, 2018.
- [38] Subham Mishra, Sourabh Verma, Somendra Prasad, Sushanta S. Bordoloi, Rupam Goswami, Kanjalochan Jena, Vikas Kumar Jha, K. Parvathi, "A Low Cost Charcoal Film Based Moisture Sensor: fabrication and computing", *Third International Conference on Soft Computing and Applications (SOCTA 2018)*, NIT Jalandhar, Dec. 21-23, 2018.
- [39] Samuel Smith, Ananthakrishna Chintanpalli, Michael Heinz, and Christian Sumner "A model of concurrent vowel identification without segregation predicts perceptual errors", *41th Meeting of Association for Research in Otolaryngology*, San Diego, USA, Feb 10-14, 2018.
- [40] Samuel Smith, Ananthakrishna Chintanpalli, Michael Heinz, and Christian Sumner "Revisiting models of concurrent vowel identification: The critical case of no pitch differences", *18th International Symposium on Hearing*, Snekkersten, Denmark, June 10-15, 2018.
- [41] Kanika, Nitin Chaturvedi, S Gurunarayanan, "Design and Analysis of a Hybrid Non-Volatile SRAM Cell for Energy Autonomous IoT", *International Conference on Intelligent Computing Techniques for Smart Energy System (ICTSES'18)*, 22-23 December 2018. (Springer Lecture Notes in Electrical Engineering, Scopus).
- [42] R. Gautham Sundar Ram, Nitin Chaturvedi, Sumeet Saurav, Sanjay Singh, "An FPGA based Hardware Accelerator for Real Time Classification of Handwritten Digits" *18<sup>th</sup> International Conference on Intelligent Systems Design and Applications*, 6-8 December, 2018.
- [43] S Pulipaka, P Kumar, R Kumar, R Kaushal, S Kumar, "Performance modeling of PV generation with inverter level data through Internet of Photovoltaic (IoPV) using artificial neural network", *IEEE ICEPE 2018*, Shillong, India, June 1-2, 2018, 1-5.

D. Books Published/Edited /Chapter written/ reviewed articles during the year:

1. N. Chaturvedi, S. Mishra, S. Dhakad, N. Sharma, K. Singh, Nitin Chaturvedi, R. Taliyan, A. Chauhan, D. K Kharbanda, P. K Khanna, "Development of GaN HEMTs Based Biosensor", *The Physics of Semiconductor Devices Series*, Springer Proceedings in Physics, Springer Nature Switzerland AG, Published on 28, October 2018.
2. N. Chaturvedi, S. Mishra, S. Dhakad, N. Sharma, K. Singh, Nitin Chaturvedi, R. Taliyan, A. Chauhan, D. K Kharbanda, P. K Khanna, "AlGaIn/GaN HEMT Based pH Sensor", *The Physics of Semiconductor Devices Series*, Springer Proceedings in Physics, Springer Nature Switzerland AG, Published on 18 October 2018.

E. Conferences, seminars & workshops conducted

1. Department organized one day "Indo-Israel Workshop on Nanomaterials and Devices (I2NMD -2018)" during Nov. 2<sup>nd</sup> 2018. Conveners of the workshop were Prof. Navneet Gupta, Dr. Arnab Hazra and Dr. Rupam Goswami.

F. Invited Talks / chairing session by EEE faculty:

1. Prof. Navneet Gupta chaired two sessions in IEEE Electron Device Kolkata Conference (IEEE-EDKCON), Kolkata, held during Nov. 24-25, 2018.
2. Dr. Rupam Goswami chaired a session in 3<sup>rd</sup> International Conference on Soft Computing: Theory and Applications, Dr. B. R. NIT Jalandhar held during Dec. 21 – 23, 2018.
3. Dr. Arnab Hazra visited as an overseas research scientist at Sensor Laboratory, Department of Information Engineering, University of Brescia, Italy, in May to June, 2018 (5 weeks).
4. Dr. Arnab Hazra visited and presented invited talk at the Department of Electrical Engineering, Tel Aviv University, Israel, in December 2018 (2 weeks).
5. Dr. Rupam Goswami delivered an invited talk on 'Importance of Agricultural Soil Health' as a part of 'technology for rural empowerment' at Saraighat Peace Foundation on Dec. 29, 2018 at Chansari, Assam, India

G. Invited talks / Visits / attended workshops of distinguished Guests arranged in the department:

1. Talk on "Simple Problems, Complex Solutions, in Networking and Computing" by Prof. Arun K. Somani, Distinguish Professor, Department of ECE, Iowa State University, Ames, Iowa, USA on 31st January 2018.
2. Talk on "Confluence of Science, Engineering, and Medicine: A personal perspective" by Prof. Rajiv Gupta, Professor, Neuro and Emergency Radiology, Massachusetts General Hospital, Boston, USA on 4th April 2018.

3. Talk on “Supervisory Control of xEVs: Challenges and Prospects” by Prof. Siddhartha Mukhopadhyay, Professor, Department of Electrical Engineering, IIT Kharagpur on 19th September 2018.
4. Talk on “Transistor Based Sensors and 2D Materials and Devices” by Prof. Yossi Rosenwaks, Dean, Faculty of Engineering, Tel-Aviv University, Israel on 29th October 2018.
5. A Talk by Sh. Kishore Kumar Gupta on “Opportunities and Challenges in Technology-Driven Entrepreneurship” on 14th November 2018.

#### H. Awards and recognitions won by faculty and students

1. Dr. Chandrashekhar was appointed chairman, board of governors, and, chancellor of AcSIR, which is an institution of national importance created through an act of parliament. AcSIR is a research university that works through all the 38 laboratories of CSIR.
2. K. K. Gupta, EEE Department attended a Symposium on Frontiers of Development in Kigali, Rwanda; fully funded by Royal Academy of Engineering (RAEng), UK.during Feb 12-14, 2018.
3. Prof. Abhijit Asati received IEEE senior membership position, IEEE Region: R10 -Asia and Pacific, section: Rajasthan Subsection
4. Prof. H.D. Mathur received IEEE senior membership position, IEEE Region: R10 -Asia and Pacific, section: Rajasthan Subsection
5. Dr. Arnab Hazra and Mr. Prateek Bindra received SERB International Travel Fellowship to attend International Functional Nanomaterials and Nanodevice Conference, Vienna, Austria, Sept. 2-5, 2018
6. Best oral presentation award: Paper details: T. Gakhar, A. Hazra, Improvement of Methanol Sensing by GO loaded TiO<sub>2</sub> nanotubes array at room temperature, National Conference on Advanced Nanomaterials and their Applications (ANA 2018), Dec. 21-23, 2018, MNNIT, Allahabad, India (Presented by: T. Gakhar)
7. Student team led by Dr. Vinay Chamola (Students: Sombuddha chakravarty, Ashutosh sancheti and Aastha maingi won the third position (cash prize of 1.5 lakhs) at the Grand India IOT Innovation Challenge organized by Tata Communications on 16<sup>th</sup> December 2018, Pune. (<http://www.tata.com/media/releasesinside/tata-communications-cii-grand-india-iot-innovation-challenge>). Their team name was “Short Circuits” and the project was “designing a vehicle to grid (V2G) functionality enabled smart parking lot”.
8. "Optimizing the Order of Modulation for Minimized Distortion in Green Communication Networks," Sarthak Jain, Sayan Rudra Pal, B. Sainath, 2018 International Conference on Electronics, Computing and Communication Technologies (IEEE CONECCCT), Bangalore, India, Mar. 2018. (won best paper award in Networking Protocols and Communication track)
9. Best Student Paper Award: Subham Mishra, Sourabh Verma, Somendra Prasad, Sushanta S. Bordoloi, Rupam Goswami, Kanjalochan Jena, Vikas Kumar Jha, K. Parvathi, “A Low Cost Charcoal Film Based Moisture Sensor: fabrication and computing”, Third International Conference on Soft Computing and Applications (SOCTA 2018), NIT Jalandhar, Dec. 21-23, 2018.
10. Dr. Syed Mohammad Zafaruddin was nominated as an Associate Editor for IEEE Access.
11. Mr. Puneet Khatri got CSIR-SRF. He is working with Dr. K. K. Gupta in DST-WTI project "Soft Computing Framework based Integrated Multi Sensor Array for Water Quality Assessment: Targeting Fluoride as major parameter"

#### I. Faculty Development, International Collaboration & Industry/ University Immersion

1. Prof. Abhijit Asati visited university of Virginia Charlottesville (USA), under university immersion program of BITS Pilani.
2. Dr. Arnab Hazra has international collaboration with Prof. Elizabetta Comini (Sensor Laboratory, Department of Information Engineering, University of Brescia, Italy).
3. Dr. Arnab Hazra has international collaboration with Prof. Yossi Rosenwaks (Dean Engineering, Tel Aviv University, Israel).
4. Dr. Anantha Krishna Chintanpalli has international collaborations with Prof. Christian Sumner (MRC Institute of Hearing Research, University of Nottingham, UK) and Prof. Michael G. Heinz (Biomedical Engineering Department, Purdue University, USA)
5. Mr. G Sai Sesha Chalapathi has international collaboration with Dr. Bernhard Etzlinger, INRAS GmbH and Prof. Andreas Springer, Head, Institute for Communications Engineering and RF-Systems, Johannes Kepler University, Linz, Austria.

## J. Significant new equipments/experimental facility added during the year

S.No.	Date of Inclusion	New Equipments Added	Amount (in INR)	Grant/Funding
1	25-04- 2018	Workstation	83873	OPERA
2	26-06-, 2018	Static & dynamic mode vapor detection system	680000	DST-SERB
3	16-08- 2018	Flow controlled annealing furnace	350000	DST-SERB
4	15-11-, 2018	Machine lab	975000000	Kishore Kumar Gupta-BITS Alumnus
5	17-7-18	Synopsys EDA Tool (Soft ware)	8,26,000	Capex
6	30-5-18	VLSI Lab OS & Installation	3,20,000	Capex
7	23-2-18	-Gas flow control kit. -Tube furnace . -D type vacuum chamber	8,02,999	ECR
8	16-8-18	-Process control trainer with air compressor . -PC based control of pressure, temperature & air trainer with air compressor etc .	13,54,258	-DST FIST -Capex
9	10-5-18	ACE_ MLBX_1302T, Software	14,17,500	DST FIST Capex
10	10-08-.2018	LDS Vibrator with accessories	4,36650	DST FIST and CAPEX
11	19-02-2018	Visual TCAD & Genius Device Simulator Bundle and GDS2MESH Visual TCAD GUI	13,34745	DST FIST and CAPEX
12	26-07-,2018	Set of Components, Model -DL10280, Power Supply Unit. Measurement Module, Loads and Rheostat Module , Adapter Bracket and accessories.	10,22447	CAPEX

## K. Departmental association/club activities:

## (i) APOGEE 2018 Projects

APOGEE 2018 saw a lot of projects from the students with 17 projects getting selected for the pitching round. Out of the projects selected for presentation during APOGEE 2018, 4 projects had won prizes under different categories which are given as under-

- Automation:- Smart Car Device
- Energy:- Solar Powered LED Street light with motion sensor Intensity Control
- Signal Processing:- VIZAID
- Signal Processing:- Hand gesture recognition using Electromyography

## (ii) APOGEE 2018 Events

Instrumentation Forum was involved in conducting the following events during APOGEE 2018:

- **Robots At War** (In association with EEE Association) – Robots At Wars is a major crowd pulling kernel event during APOGEE. Teams from various parts of the country participate in the event to prove their designs and strengths of their bots. The remote controlled bots compete in an arena to damage or render their opponents useless. This time there were 5 teams who had competed in the event. Prizes worth more than 25,000 were awarded to the winners.
- **Track-O-Mania** (In association with EEE Association) – Track-O-Mania is the event where participant design a bot to track complicated patterns on wooden board. The bot is judged based on their efficiency and speed. This event also saw a participation of 5 teams.
- **Hackatronics** - Hackatronics is a mind boggling electronics event where a problem statement is proposed and the participants have to solve a practical system designing problem with the given electronics component.

- Analog Design Challenge (ADC) - In ADC, a quizzing event, participants are judged in two rounds. First round checks the analog aptitude of a participant. Winners of the first round move on to solve a real life analog problem statement on Cadence.
- Circuit Design Challenge (CDC) – CDC, an event similar to ADC for the digital systems, participants are judged in two rounds. First round checks the digital aptitude of a participant. Winners of the first round move on to the next round and solve circuit design problem in the digital electronics lab.

(iii) EEE Association :

EEE Association conducted students lab visit tour and demo of Digital Design Lab, Electric Machines ,Lab, O Lab, Drivers Lab, Communication Labs etc. They also organized

Open Workshop on Micro controller programming during 15-16 September 2018 and was attended by around 90 students. Further a talk on Internet of Things, a World of Opportunities by VS Shridhar, Senior Vice President and Head of IOT Division,Tata Communications Was conducted on 1st October 18. A Talk on Career Opportunities in EEE/ENI was conducted on 17th November,2018 by Srujan Penta, Likhit Teja and Rutwik , of the outgoing batch.

(iv) Instrumentation Forum :

Workshop on Introductory microcontroller programming has been conducted by forum in September to give the students an introduction to general microcontroller design, an understanding of the various features available, and a hands-on experience of programming the Texas Instruments TMS320F28335 microcontroller. A talk by Dr. S. Mukhopadhyay and by Dr. L. K. Maheshwari was organized by the forum.. APOGEE Ideation Meet in collaboration with IEEE was organized in November,18 to help the students in their problems regarding APOGEE projects and paper presentation.

(v) IEEE Pilani Student Branch:

IEEE student branch in the month of September conducted introductory sessions for the recruited students on cutting edge topics in the current technical fields such as Machine Learning, Arduino programming and on App Development. In the month of October, the branch invited Dr. Ajay Agarwal, a Sr.Principal Scientist at CSIR CEERI Pilani to give a talk on Nano-Biosensors and MEMs. The groups made were for Machine Learning, Electronics, Programming (Basic Level Coding where students learn languages and algorithms). An editorial team was created, this team will be responsible for making a newsletter which contains various latest developments in the technical fields and industry. The newsletter aims to promote technical culture on campus. All the groups were given assignments and are currently working on them and regular sessions are being held to check their progress.In November, an open to all session was conducted by the branch in collaboration with Instrumentation forum and Department of PEP. In this session the students were encouraged to submit a paper in the upcoming technical fest 'APOGEE 2019'. The procedure and format for writing a paper was explained to the audience. A meet was held for the members of the branch to discuss the possible events that could be held by the branch leading up to and in 'APOGEE 2019'.

**B1.10.8 Department: Humanities and Social Sciences**

Number of faculty members (as on 31 December 2018)

Senior Professors, Professors	00
Associate Professors	08
Assistant Professors	08
Lecturers	00
Visiting Faculty	00

Head of the Department: Prof. S.K. Choudhary

Contact details: chskumar@pilani.bits-pilani.ac.in

Number of PhD Scholars: FT : 12 PT: 5 Total : 17

Ph.D. Thesis Submitted during the year: 3

**A. SPONSORED RESEARCH ACTIVITIES:****(i) Projects Ongoing during the year 2018**

1. Anupam Yadav, Epistemology Revisited: Postmodern Discourses, Alternative forms of Cognition and Interdisciplinarity of Knowledge Indian Council of Philosophical Research, New Delhi Amount 2 Lakhs (Ongoing).
2. Gajendra Singh Chauhan (PI), Rajnesh Choubisa, Tanu Shukla, Sailaja Nandigama, and Dr. R. P. Pareekh. Major ICMR Research Project entitled "Efficacy & Effectiveness of Information, Education and Communication (IEC) activities for Health Awareness and Promotion Among Women in Rajasthan: Towards a HOPE Approach" [Sanction No.16/2016/ICMR-ICSSR-SBR] (Amount Mobilized: INR 25,11,490/-) (ongoing)
3. Rajnesh Choubisa (PI), Tanu Shukla, and Gajendra Singh Chauhan, Major ICMR Research Project entitled "Development & Validation of a Prototype of a Web/Mobile App Based Positive Psychological Intervention for Adolescents" [Sanction No.24/2016/ICMR-ICSSR-SBR] (Amount Mobilized: INR 17,01,650/-) (ongoing)
4. Sailaja Nandigama, Sanjiv Kumar Choudhary, and Kumar Sankar Bhattacharya ICSSR Major Research Project titled, "Participatory Exclusions of women and the poor in community Forestry: A Comparative Study of Implementation of the ROFR Act Across 3 States of India". Indian Council of Social Science Research (ICSSR), New Delhi. Amount 7 Lakhs (Ongoing).
5. Sangeeta Sharma. Bringing back peacocks to Pilani, funded by BITS Alumni 1987 batch, January 2017. 10 lakhs. Received 10 lakhs more.
6. Devika (PI) and Dr. Rajni (Co PI)"Influence of English Teachers' Efficacy, Competence, and Motivation on their Instructional Strategies: A study of Secondary School Teachers in Jhunjhunu, Rajasthan" Funding Agency NCERT. Funding Amount -6,80,400 Rs/-

**(ii) Projects completed during the year 2018**

1. Sangeeta Sharma. "Rural women empowerment and sustainable growth" in collaboration with MNIT, Jaipur, Amount 30 Lakhs, DST, 2015.

**(iii) Project proposals approved during the year 2018**

1. Gajendra Singh Chauhan (PI), Rajnesh Choubisa, Tanu Shukla, Sailaja Nandigama, and Dr. R. P. Pareekh. Major ICMR Research Project entitled "Efficacy & Effectiveness of Information, Education and Communication (IEC) activities for Health Awareness and Promotion Among Women in Rajasthan: Towards a HOPE Approach" [Sanction No.16/2016/ICMR-ICSSR-SBR] (Amount Mobilized: INR 25,11,490/-) (approved)
2. Rajnesh Choubisa (PI), Tanu Shukla, and Gajendra Singh Chauhan, Major ICMR Research Project entitled "Development & Validation of a Prototype of a Web/Mobile App Based Positive Psychological Intervention for Adolescents" [Sanction No.24/2016/ICMR-ICSSR-SBR] (Amount Mobilized: INR 17,01,650/-) (approved)
3. Devika (PI) and Dr. Rajni (Co PI)"Influence of English Teachers' Efficacy, Competence, and Motivation on their Instructional Strategies: A study of Secondary School Teachers in Jhunjhunu, Rajasthan" Funding Agency NCERT. Funding Amount -6,80,400 Rs/-.

## B. Publications:

1. Anupam Yadav, "Media and Ethics: A Question of Cultural Regeneration" in the book *Media, Culture and Ethics*, Macmillan Publishers India (P.) Ltd., 2018.
2. Anupam Yadav (2018) "Epistemology Revisited: A Feminist Critique" *Journal of International Women's Studies*, Bridgewater State University, USA, 19(6), 374-381. Available at: <http://vc.bridgew.edu/jiws/vol19/iss6/24>
3. Tanu Shukla, Gajendra Singh Chauhan, and Saumya "Traversing the women entrepreneurship in South Asia: A journey of Indian startups through Lucite ceiling phenomenon", (2018) *Journal of Enterprising Communities: People and Places in the Global Economy*, (Emerald) Vol. 12 Issue: 1, pp.50-66, <https://doi.org/10.1108/JEC-04-2017-0028>
4. Nair, Hair Review of "Rila Mukerjee (ed.), *Beyond National Frames: South Asian Pasts and the World*. Delhi: Primus, 2015, 280 pp." in *Society and Culture in South Asia*, Volume 4, Number 2, pp. 312-317.
5. Agrawal, Vidhi and Hari Nair. "From Jan Sunwai to Rajasthan Right to Hearing Act 2012: Fostering transparency and accountability through citizen engagement" *Studies in Indian Politics*, vol. 6, number 2, December 2018, pp. 282-296.
6. Agrawal, Vidhi and Hari Nair. "Institutionalising social audit in Meghalaya " *Economic and Political Weekly*. Vol. 53, Issue No. 33, 18 August 2018, pp. 17-19. <https://www.epw.in/journal/2018/33/commentary/institutionalising-social-audit.html>
7. Choubisa, R., & Singh, K. (2018). Development and Validation of a Web-Delivered Student Well-Being Enhancing Intervention in a Developing Milieu: A Limited Randomized Controlled Trial. *Cogent Psychology*, 5 (1), 1-28. DOI: [10.1080/23311908.2018.1488512](https://doi.org/10.1080/23311908.2018.1488512) (Scopus/APA PsychInfo Indexed).
8. Cejková, E., Slezácková. Choubisa, R., & Vijayalakshmi, V. (2018). Life Values and Subjective Well-being among Indian University Students: Scrutinizing the Omnipresent North-South Divide. *Journal of Indian Academy of Applied Psychology*, 44 (2), 238-248. [Scopus and APA PsycINFO Indexed].
9. Kumar Neeraj Sachdev, "An Analysis of Value-Oriented Linkages between Professions and Business," *International Journal of Research in Business Studies*, Vol. 3, No. 1, June 2018, pp. 33-42
10. Williams, G., & Nandigama, S. (2018). Managing political space: authority, marginalised people's agency and governance in West Bengal. *International Development Planning Review*, 40(1), 1-26. (Scopus/ Open Access publication).
11. Nandigama, S. (2018). Performance of success and failure in grassroots conservation and development interventions: Gender dynamics in participatory forest management in India. *Land Use Policy* (Article in Press). (Scopus Publication).
12. Sangeeta Sharma and Madhusmita Das. "Recent Trends in Advertising to lure the Youth" in *Marketing Magic For Millennials Rise of Gen Yo!* Ed Swati Soni and Vandanna Sharma. New Delhi: Bloomsbury. 2018. Pp151-163, ISBN 978-93-86826-86-2.
13. Poonam Vyas and Sangeeta Sharma." Measuring the effectiveness of Traditional and Multimedia supported Techniques in imparting Communication Skills among the Learners. *Journal of Media, Culture and ethics*, New Delhi: Macmillan Education. 2018. Pp188-195 ISBN 978-93-87687-19-6
14. Madhusmita Das and Sangeeta Sharma. *Applying Eco-Feminism of Advertising: The Role of Women*. *Journal of Media, Culture and ethics*, New Delhi: Macmillan Education. 2018. Pp66-74 ISBN 978-93-87687-19-6
15. Tanu Shukla, GS Chauhan & Saumya (2018). *Traversing the Women Entrepreneurship in South Asia: A Journey of Indian Startups through Lucite ceiling phenomenon*. *Journal of Enterprising Communities: People and Places in the Global Economy*, Emerald, [DOI: 10.1108/JEC-04-2017-0028]
16. Tanu Shukla, V.S. Nirban & Divya Dosaya. (2018). *Experience and Qualifications: A Study on Attributes of Teachers' Professionalism*. ACM Digital Library.
17. Tanu Shukla. & Divya Dosaya. (2018). *Sustaining the Integrity of Academic Profession: Revisiting the Ethical Code*, Macmillan Education (176-179), [ISBN 938768719-B]
18. V.S. Nirban & Tanu Shukla (2018). *Internet Interventions in E-Governance: The Moderating Influence of Certain Demographic Characteristics*. ACM Digital Library.
19. Neerja Vyas and Sushila Shekhawat. *Ethics and Hindi Biopics in the book Media, Culture and Ethics*. Eds. Sharma, S, Shekhawat S and Yadav A. New Delhi: Macmillan Publishers Pvt Ltd. .pp184 -187



20. Sharma, Sangeeta, Sushila Shekhawat and Giridhar Kunkur. Language and Communication Skills Training for the Library Staff: The Dire Need of the Time. University News. A Weekly Journal of Higher Education; Association of Indian Universities. Vol.56.No.32.August 6-12, 2018, pg.13-14.
21. Kumar Ravi and Devika. "Negotiating Muslim Identity in Mohsin Hamid's *The Reluctant Fundamentalist*." *Literary Voice* 9 (1) (Sep. 2018): 75-80. Print. ISSN: 2277-4521. Indexed with Web of Science ESCI, Cosmos, ESJI, I2OR, Cite Factor.
22. Lata, Pushp. (2018) *Creating a User Generated Environment through Flipping Classroom: An Experiential Pedagogy*. Journal of English Language Teaching, Vol. 60/3 May- June 2018 ISSN 0973-5208. A Peer-Reviewed Journal ISSN 0973-5208).
23. Lata, Pushp and Shivangi Priya (2018) *Enhancing Employability Prospects of College Students from Rural Background: A Case Study*, *Literary Voice*, Vol. 9 issue no1, 2018, pp.103- 109. A Peer-Reviewed, Internationally Indexed Journal. Indexed with Thomson Reuter, Web of Science, ESJI, EZOR, Cite Factor and COSMOS. (ISSN 2277-4521)
24. Luhach, Suman and Pushp Lata, Devising a Paragogical Framework for Integrating Online Writing Tutorials at Bits Pilani , Focus on English Language Teaching (FELT) Peer- reviewed UGC Approved Journal, Vol 32, 2018, ISSN 0976-1306
25. Singh, R & Choudhary, S.K. (2018). An empirical study on the predictive role of SES on high school students' achievement in learning ESL. *Int. J. of Learning and Change*, 10 (2), 163-183.
26. Singh, R & Choudhary, S.K. (2017). The relationship between Parental Involvement and Students' AESL at secondary schools. *Fortell: A Journal of Teaching English Language and Literature*, Issue 34. Available from <http://fortell.org/>.
27. Priyanka Kumari and Nirban V S (2018). Intercultural Communication Competencies in the Indian Information Technology Industry. *International Journal of Cross Cultural Management*, Sage. (Accepted, Scopus)
28. Priyanka Kumari and Nirban V S (2018). Intercultural Education in Engineering Curriculum: A Review of Communication Courses for Undergraduate Students in India. *Journal of Engineering Education Transformations*. (Accepted)
29. V S Nirban and Kumari P (2018). Surviving Amidst the Digital Communication Wave: Issues in Writing Skills of Young Adults. *Communicator* 53(1), Indian Institute of Mass Communication, pp 3-26, ISSN:05888093
30. V S Nirban and Tanu Shukla (2018). Internet Interventions in E-Governance: The Moderating Influence of Certain Demographic Characteristics. *ICIEI 2018 Proceedings of the 2018 The 3rd International Conference on Information and Education Innovations*. ACM Digital Library. PP 99-103, ISBN: 978-1-4503-6440-9 doi>10.1145/3234825.3234844. (Scopus)
31. Tanu Shukla, V S Nirban and Divya Dosaya (2018). Experience and Qualifications: A Study on Attributes of Teacher Professionalism. *ICIEI 2018 Proceedings of the 2018 The 3rd International Conference on Information and Education Innovations*. ACM Digital Library. PP 45 45-48, ISBN: 978-1-4503-6440-9doi>10.1145/3234825.3234845. (Scopus)
32. V. S. Nirban and P K Chandel (2018). "Collateral Damage of New Media Technology Interventions in Virtual Culture: Slouching Towards Lesser Human Beings". *International Journal of Engineering, Technology, Science and Research*. Volume 5 Issue 2, Pp: 48-56.
33. V. S. Nirban and Ishaan Chutani (2018). "Comparison of Various Techniques to Detect Sarcasm in Twitter Discourse". *Asian Quarterly*. Volume 15, Issue 4. pp 76-84. ISSN 2229-581X

#### C. Conferences:

##### (i) Conferences attended/ papers presented outside India:

1. Anupam Yadav, "Ecology of Knowledges and Social Justice" at the 7th International Conference on Advancement of Development Administration (ICADA)- Social Sciences and Interdisciplinary Studies held at NIDA, Bangkok, Thailand from May 31 to June 2, 2018.
2. Anupam Yadav, "Non-representational Discourse of Knowledge and the Post-philosophical Culture" at the 24th World Congress of Philosophy organized by Peking University, held at Beijing, China during 13-20 August, 2018.
3. Gajendra Singh Chauhan, 2nd International Conference on Sociolinguistics (ICS-2) 6-8 September 2018 at Eötvös Loránd University, Budapest, Hungary. Presented a paper "Fake News in Media: Decoding the Communication of Chaos".

4. Johnson, L., Antoniuk, A., Misbah, K.B., Noureen, A., & Choubisa, R. (2018). "Mindful Contextualization": Exploring the Limits of Cross-Cultural Mindfulness Measurement. ARTS-2018 Symposium Presentation during 29<sup>th</sup> International Congress of Applied Psychology (ICAP) at Montreal, Canada during 26<sup>th</sup> to 30<sup>th</sup> June 2018.
5. Flores-Lucas, V., Martinez-Sinovas, R., & Choubisa, R. (2018). Sources of Hope Similarities and Differences across Different Cultures: A Cross Cultural Comparison between German, Spanish and Indian Adults. Symposium Presentation in 9<sup>th</sup> European Conference on Positive Psychology, at Budapest (Hungary) during 27<sup>th</sup> to 30<sup>th</sup> June 2018.
6. Cejková, E., Slezácková, Choubisa, R., & Vijayalakshmi, V. (2018). Life Values and Subjective Well-being among University Students across Cultures: Comparison of Czech, North Indian and South Indian Samples. Poster Presentation in 9<sup>th</sup> European Conference on Positive Psychology, at Budapest (Hungary) during 27<sup>th</sup> to 30<sup>th</sup> June 2018.
7. Barad, K., & Choubisa, R. (2018). Understanding Variations in Job-Crafting Behaviors in Rural & Urban Banking Sector Employees: A Comparative Analysis. Paper presented in the 24<sup>th</sup> International Congress of Cross-Cultural Psychology (IACCP 2018) at University of Guelph, Canada during 1<sup>st</sup> to 5<sup>th</sup> July 2018.
8. Ruparel, N., & Choubisa, R. (2018). Need and Implications of a *Mental Toughness Scale*: Adaptation, Contextualization and Construct Validation. Paper presented in 29<sup>th</sup> International Congress of Applied Psychology (ICAP) at Montreal, Canada during 26<sup>th</sup> to 30<sup>th</sup> June 2018.
9. Ruparel, N., Choubisa, R., & Verma, M. (2018). Compendium of Organizational Behavior Research in India: A Systematic Review and Classification. Paper presented in 29<sup>th</sup> International Congress of Applied Psychology (ICAP) at Montreal, Canada during 26<sup>th</sup> to 30<sup>th</sup> June 2018.
10. Ruparel, N., & Choubisa, R. (2018). Kentucky Inventory of Mindfulness Skills (KIMS): Assessing Suitability and Utility for Indian Students. Poster presented in 24<sup>th</sup> International Congress of Cross-Cultural Psychology (IACCP 2018) at University of Guelph, Canada during 1<sup>st</sup> to 5<sup>th</sup> July 2018.
11. Choubisa, R., & Ruparel, N. (2018). Health (Electronic/Mobile) Interventions for Non-Clinical Population in South Asian Region: Lessons and Implications from a Critical Realist Perspective. Paper presented in 24<sup>th</sup> International Congress of Cross-Cultural Psychology (IACCP 2018) at University of Guelph, Canada during 1<sup>st</sup> to 5<sup>th</sup> July 2018.
12. Kumar Neeraj Sachdev, "An Ethical Analysis of Employer-Employee Relation, Loyalty and Whistle-Blowing," in the 24<sup>th</sup> World Congress of Philosophy (WCP 2018) on "Learning to be Human" held at China National Convention Center (CNCC), Beijing, China during August 13-20, 2018.
13. Sailaja Nandigama presented her ICSSR Major Research Project based paper at the 4th Annual International Meeting of the FLARE Network (Forests & Livelihoods: Assessment, Research, and Engagement) held at Copenhagen University, Denmark from October 16- 20, 2018. Title:"Framing the institutional complexity in the Forest Rights Act's (FRA) implementation in India: Making sense of how the FRA interacts with the other parallel forest management institutions."
14. Sangeeta Sharma. "Media credibility on election coverage" in the panel "Electoral integrity in a variety of regimes" at Development Research Conference in Gothenberg, Sweden, 22-13 August 2018.
15. Tanu Shukla Bracketing Educational Technology and Gender Perspective in University Context, 4<sup>th</sup> World Conference on Women's Studies (WCWS), Colombo, Sri Lanka, May 3<sup>rd</sup> - 5<sup>th</sup>, 2018.
16. Tanu Shukla Exploring the Gender Divide: Connecting ICT and Women Entrepreneurship, 4<sup>th</sup> World Conference on Women's Studies (WCWS), Colombo, Sri Lanka, May 3<sup>rd</sup> - 5<sup>th</sup>, 2018.
17. Tanu Shukla Digital Technology Acceptance among citizens in E-commerce Transactions, 33rd International Conference on Information and Education Innovations (ICIEI), London, UK, 30<sup>th</sup>June-2<sup>nd</sup> July 2018.
18. Tanu Shukla Dynamics of Teacher Professionalism in Secondary School Education, 33rd International Conference on Information and Education Innovations (ICIEI), London, UK, 30<sup>th</sup>June-2<sup>nd</sup> July 2018.
19. Tanu Shukla International Conference on E-Education, E- Business, E-Management and E- Learning. (IC4E), London, UK, 18 th -19 th December, 2018.
20. Sunita Raina. Paper titled "Politics of GM Foods: Exploring the Interface of GEAC and TAC in India" was presented at the annual meeting of the Society for the Social Studies of Science (4S) held in Sydney, Australia, from August 29- September 1, 2018.
21. V. S. Nirban, "Teacher Accountability and Technology Intervention" at the International Conference on E-Education, E-Learning organized by Institute of Research Engineers and Scientists, London, UK, during 18th - 19th December 2018.

22. V. S. Nirban, "Digital Technology Acceptance among citizens in E-commerce Transactions" at the 3rd International Conference on Information and Education Innovations held in London, UK during 30th June - 2nd July 2018.
23. V. S. Nirban, "Dynamics of Teacher Professionalism in Secondary School Education" at the 3rd International Conference on Information and Education Innovations held in London, UK during 30th June - 2nd July 2018.
24. V. S. Nirban, "Bracketing Educational Technology and Gender Perspective in University Context" at the 4th World Conference on Women's Studies, organized by The International Institute of Knowledge Management (TIKM), Sri Lanka and Bridgewater State University, United States, during 3rd to 5th May 2018.
25. V. S. Nirban, "Exploring the Gender Divide: Connecting ICT and Women Entrepreneurship" at the 4th World Conference on Women's Studies, organized by The International Institute of Knowledge Management (TIKM), Sri Lanka and Bridgewater State University, United States, during 3rd to 5th May 2018.

(ii) Conferences attended/papers presented in India:

1. Hari G Nair, Presented the study titled 'Thoreau and Gandhi on the *Gita*' at the International Conference titled 'Thoreau and the transcendentalists: Their philosophy and related concerns', 15-17 March 2018 at Bharti College, University of Delhi and India International Centre, New Delhi.
2. Hari G Nair, Invited lecture titled 'Tolstoy, Gandhi and the *Hind Swaraj*' delivered on 26 February 2018 at Janaki Devi Memorial College, University of Delhi.
3. Ruparel, N & Choubisa, R. (2018). Cultural Intelligence in Organizational Psychology Research: Exploring Theoretical, Conceptual and Methodological Role. Paper presented at the First PAN IIT International Management Conference organized by DoMS, IIT Roorkee during November 30, 2018 to December 2, 2018.
4. Choubisa, R. (2018). Positive Psychology vis-a-vis Positive Neuroscience: Paradoxes and Complementarities. Oral Presentation as part of Symposium titled "Adaptive Brain ~ An Affective Cognitive Neuroscience based approach to Stimuli Processing in Healthy Individuals" at International Conference on Neuroscience & XXXVI Annual Meeting of Indian Academy of Neurosciences organized by Institute of Science, Banaras Hindu University, Varanasi during 29-31 October 2018.
5. Ruparel, N., & Choubisa, R. (2018). Ethics v/s Satisfaction: A Case Examination of Food Court's Work Environment. Paper presented at the International Conference on Media, Culture and Ethics organized by Department of Humanities and Social Sciences, BITS Pilani during 9-11 February, 2018.
6. Kumar Neeraj Sachdev, "An Analysis of Value-Oriented Linkages between Professions and Business," in IndianResearch.Org sponsored International Conference on Research in Business (ICRB 2018) on "Modern Age Interventions in Business and Economy: Catches and Keys" held at India International Centre, New Delhi, India on 20 May 2018 (Best Paper Award)
7. Sailaja Nandigama presented a paper titled, "In dialogue with Development: Forests and Tribes Livelihoods in Flux in an Indian state" in the 47th Annual meeting of the Indian Anthropological Association and the "National Seminar on Tribal Situation in India" conducted at the IGNTU, Amarkantak, MP, from 1-02-18 to 3-02-18.
8. Sailaja Nandigama and Dr. Tamali Bhattacharyya presented a research paper on "Dismantling the teaching research divide: Perspectives from experiential learning in Environmental education" in the National Workshop on *Improving Synergy between Teaching and Research in Indian Academia* organised by the TLC on March 26, 2018.
9. Poonam Vyas and Sangeeta Sharma. " Measuring the effectiveness of Traditional and Multimedia supported Techniques in imparting Communication Skills among the Learners" in International Conference on Media, Culture and Ethics at BITS Pilani, 9<sup>th</sup> Feb 2018
10. Sangeeta Sharma. " Creativity in Teaching Creative Thinking : A Course offered to Engineering Students" in National Workshop on *Improving synergy between teaching and research in Indian Academia* at BITS Pilani 26<sup>th</sup> March 2018
11. Tanu Shukla, Sustaining the Integrity of Academic Profession: Revisiting the Ethical Code, International Conference on Media, Culture and Ethics (MCE), BITS Pilani, Rajasthan, India, February 9<sup>th</sup>-10<sup>th</sup>, 2018.

12. Neerja Vyas and Sushila Shekhawat. Ethics and Hindi Biopics. Presented at the International Conference on Media, Culture and Ethics organized by the Department of Humanities and Social Sciences, BITS, Pilani, Pilani Campus during 9 to 10 February, 2018
13. Lata, Pushp participated and presented a paper on Flipping Classroom Teaching for Better Learning: An Experiential Pedagogy in the National Workshop on Synergy between Teaching and Research in Indian Academia organized by Teaching Learning Centre, BITS, Pilani, Pilani Campus during March 26-27, 2018
14. Lata, Pushp and Shivangi Priya attended and presented a paper entitled Culture, Language and Identity: A Sociolinguistic Study at the International Conference on Media, Culture and Ethics organized by the Department of Humanities and Social Sciences during 9<sup>th</sup> and 10<sup>th</sup> February 2018
15. Lata, Pushp, Kaushik Ramesh Iyengar and Smiti Yadav attended and presented a paper entitled Intercultural Competence among Indian Youth: Need for Training at the International Conference on Media, Culture and Ethics organized by the Department of Humanities and Social Sciences during 9<sup>th</sup> and 10<sup>th</sup> February 2018
16. Lata, Pushp attended and presented a paper entitled *Fostering Critical Thinking among Engineering Graduates: A Task Based Approach*, National Workshop on Improving Synergy Between Teaching And Research In Indian Academia (Istria 2018), BITS, Pilani on March 26-27, 2018
17. Shivangi Priya and Lata, Pushp presented a paper entitled *Language Promotion and the Eighth Schedule of the Constitution of India* at the 40<sup>th</sup> International Conference of the Linguistic Society of India held at the Central Institute of Indian Languages, Mysore from 05-07 December 2018.
18. Sanjiv Kumar Choudhary Attended a 2-day international conference on Media, Culture and Ethics held at BITS Pilani, Pilani Campus during 9-10 February 2018 and also chaired a plenary session during the conference.
19. Sanjiv Kumar Choudhary Attended a 3-day long *International Conference on Transformations in Engineering Education (ICTIEE' 18)* organized jointly by Bennett University, Greater Noida and Indo Universal Collaboration for Engineering Education (IUCEE) and held at Bennett University, Greater Noida during 4-6 January 2018.
20. Sanjiv Kumar Choudhary Attended a 2-day long *Future of Learning Conference 2018: Pedagogy, Policy and Technology in a Digital World* organized jointly by IIM Bangalore and IIT Bombay followed by a one day *MOOC Production Workshop* conducted by IIMBX and held at IIM Bangalore during 15-17 January 2018.
21. Sanjiv Kumar Choudhary Attended a 2-day national level workshop on Experimental Methods in Cognitive Neuroscience held at BITS Pilani, KK Birla Goa Campus during 15-16 December 2017.
22. Sanjiv Kumar Choudhary Attended the 4<sup>th</sup> International Conference on English in Multicultural Classrooms: Perspectives, Prospects, Possibilities organized by ELTAI in association with RELO and British Council, New Delhi at KMM, Rajasthan University, Jaipur during 30-31 October 2017 and also chaired two workshop sessions during the conference.
23. V. S. Nirban, "Intercultural Communication Education: An Exploration of Communication Courses for Engineering Students in India" at the International Conference on Media, Culture and Ethics organized by the Department of Humanities and Social Sciences, BITS Pilani, 9-10 February, 2018.
24. V. S. Nirban, "Gender Based Communication Differences in Online Media" at the International Conference on Media, Culture and Ethics organized by the Department of Humanities and Social Sciences, BITS Pilani, 9-10 February, 2018.
25. V. S. Nirban, "Interplay between organizational change and career orientation" at the First Indian Congress on Industrial and Organizational Psychology, Department of Psychology, University of Rajasthan, 30-31st January 2018.

D. Books Published/Edited /Chapter written/ reviewed articles during the year:

1. Shukla, T., Yadav, A. & Chauhan, G.S. (2018). *Human Values and Professional Ethics*, Cengage Learning International. [ISBN: 9789386858764 B]
2. Sharma S., Shekhawat S., Yadav, A. (eds.) (2018). *Media, Culture and Ethics*, Macmillan Publishers India (P.) Ltd. [ISBN: 978-93-87687-19-6]
3. Gajendra Singh Chauhan and Smita Kashiramka (Co-authored) "Technical Communication" 2018. Cengage Learning India, New Delhi.
4. Krafft, A.M., & Choubisa, R. (2018). Hope in the Indian Psychology Context: Philosophical Foundations and Empirical Findings. In Krafft, A., Walker, A., and Perrig-Chiello, P. (Eds.). *Hope for a Good Life:*

Results from a Hope-Barometer International Research Program (pp-131-163). Social Indicators Research Series 72. Springer Nature Publishing [ISSN: 978-3-319-78469-4; ISSN: 1387-6570]. DOI: 10.1007/978-3-319-78470-0\_7

5. Flores-Lucas, V., Martinez-Sinovas, R., & Choubisa, R. (2018). Beyond Hope in an Educational Context: The Role of Psychological Capital. In Krafft, A., Walker, A., and Perrig-Chiello, P. (Eds.). Hope for a Good Life: Results from a Hope-Barometer International Research Program (pp-199-215). Social Indicators Research Series 72. Springer Nature Publishing. [ISBN: 978-3-319-78469-4; eISSN: 2215-0099]. DOI: 10.1007/978-3-319-78470-0\_9.
6. Choubisa, Rajneesh reviewed articles for Computers in Human Behavior Published by Elsevier Science Direct [ISSN: 0747-5632]; Journal of Happiness Studies Published by Springer [ISSN: 1573-7780]; Cogent-Psychology (Taylor & Francis) [ISSN: 2331-1908]; Peer Reviewer and Scientific Committee Member (5<sup>th</sup> World Congress of Positive Psychology, Montreal, Canada).; Reviewer for 78<sup>th</sup> Annual Meeting of the Academy of Management (OB/HR Track) - (10-14th August 2018; Chicago, Illinois).; Reviewer (Research & Practice Track) for 6<sup>th</sup> World Congress of Positive Psychology scheduled on 19-25 July 2019 at Melbourne (Australia); Consulting Editor for Pakistan Journal of Psychological Research, National Institute of Psychology, Islamabad, Pakistan.
7. Sailaja Nandigama provided services as a reviewer for the SCOPUS indexed journal titled, *Women's Studies International Forum* (Elsevier).
8. Sailaja Nandigama is invited as an Editorial member of the *Open Journal of Women's Studies* which is an international open access journal dedicated to gender studies in developing societies.
9. Sailaja Nandigama is providing her services as the Editorial member of the *Journal of International Women's Studies* which is an international journal dedicated to gender studies.
10. Sangeeta Sharma, et al. Media, Culture and Ethics. Macmillan Education. New Delhi.2018.
11. Meenakshi Raman and Sangeeta Sharma. Technical Communication 3e (Combo for KIIT). OUP.New Delhi.2018.
12. Sangeeta Sharma Reviewed paper entitled Factors influencing Young Job Seekers Perception towards Job Portal for AIJM, USA December 2018
13. Sangeeta Sharma Reviewed paper The Predictive Power of Scientific Creativity Levels of Preservice Teachers' Academic Motivation, Universal Journal of Educational Research USA. 9<sup>th</sup> July 2018
14. Sangeeta Sharma Reviewed paper entitled " Women Empowerment Through Cooperative: Theoretical Review for Journal of International Women's Studies, Bridgewater State University, Bridgewater, USA, 2018
15. Sanjay Kumar and Pushp Lata, Technical Communication Skills , Based on AICTE, Syllabus, VT University New Delhi: Oxford University Press (OUP), 2018
16. Kumar Sanjay and Pushp Lata. (2018) *English Language and Communication Skills for Engineers. As per AICTE Syllabus*. New Delhi: Oxford University Press. ISBN 0-19-949136-4
17. Kumar Sanjay and Pushp Lata. (2018) *Communication Skills: A Workbook*. New Delhi: Oxford University Press. ISBN: 0- 19-948880-0

E. Conferences, seminars & workshops conducted:

1. Sangeeta Sharma, Anupam Yadav and Shekhawat S organized an International Conference on Media, Culture and Ethics held at the Department of HSS, BITS, Pilani from February 9-10, 2018.
2. Anupam Yadav conducted a one-day training cum workshop for private companies executives on *Human Values and Professional Ethics* organized by Banipal Management Consultant at Vadodara, Gujarat, on December 28, 2018.
3. Pushp Lata was Invited to conduct a workshop on *Flipped Classroom and Problem Based Teaching* in a Faculty Development Programme on Pedagogical Approaches in Science, Technology, Engineering and Management organized by the Department of Applied Sciences, Humanities and Management, Bundelkhand Institute of Engineering and Technology, Jhansi (UP) in collaboration with PDA College of Engineering, Gulbarga during October 04-08, 2018 (One Week) held under the aegis of TEQIP- III.

F. Invited Talks / chairing session :

1. Anupam Yadav delivered an expert lecture on "Effective Communication for Engineering Students" in the TEQIP- III National Workshop for students on Communication Skills organized by Rajasthan Technical Institute & SKIT, Jaipur held at SKIT during March 20-22, 2018.

2. Hari G Nair, Invited lecture 'Buber y Gandhi en retrospectiva' as a resource person for the Diplomado en Estudios Sobre Asia at Seminario Universitario de Estudios Asiáticos, Instituto de Investigaciones Filológicas, Universidad Nacional Autónoma de México 25 Sep 2018 (via video conference).
3. Choubisa, R. (2018). Team Leader for Advanced Research & Training Seminar (ARTS-2018) duly sponsored by International Academy of Applied Psychology (IAAP) to lead and guide a research team of five International students from different universities.
4. Sangeeta Sharma, Invited to conduct one day workshop on Business Communication for REIL employees at MNIT, Jaipur on 25<sup>th</sup> February 2018.
5. Sangeeta Sharma, Delivered a talk on "glimpses of Rajasthan" to Hiroshima University scholars under SIP conducted from 10-15 March 2018
6. Sangeeta Sharma, Delivered a Plenary talk on " Role of Communication in Personality development" at SKIT Jaipur on 20<sup>th</sup> March 2018
7. Sangeeta Sharma, Delivered an invited talk on "Making the career secured" to Birla School, Pilani on 4<sup>th</sup> September 2018.
8. Sangeeta Sharma, Delivered a talk on "Effective Communication for Library Staff" at BITS Pilani on 30<sup>th</sup> October 2018.
9. Sangeeta Sharma, Delivered talk on "Role of Communication for students" in Regional Science Congress on 14<sup>th</sup> November 2018.
10. Sushila Shekhawat delivered a talk on How to handle Nervouness and importance of listening for library staff at BITS Pilani on 30th October, 2018.
11. Sushila Shekhawat Delivered a talk on Indian Culture to students of Hiroshima University under Study India Programme during 10 to 15 March, 2018.

G. Invited talks / Visits / attended workshops of distinguished Guests arranged in the department:

1. Sangeeta Sharma, Invited Meghna darbara CEO "Make the world wonderful" to deliver talk to creative thinking students on 12<sup>th</sup> September 2018
2. Sangeeta Sharma, Invited Ms Payal Randhawa, Executive Director, Resource Alliance to deliver a talk on social entrepreneurship on 5<sup>th</sup> November 2018
3. Sangeeta Sharma, Invited Raghav Mimani for panel discussion on " life at BITS Pilani" on 29<sup>th</sup> July 2018.

H. Awards and recognitions won by:

Faculty:

1. Choubisa, R. (2018). Turnitin Honorable Mention for Excellence in Academic Integrity by Turnitin Headquarters, USA.

Students: NIL

I. Faculty Development, International Collaboration & Industry/ University Immersion:

J. Significant new equipments/experimental facility added during the year:

K. Departmental association/club activities:

L. Students Activities, Achievements, Scholarships, Cultural And Academic Festivals:

1. Anil Rai supervised and guided to Gurukul association of music and also performed in the various cultural activities of the institute throughout the academic year. i.e. -

Dhwani-Gurukul nite- April-8,2018, Reprise Gurukul nite- on 23<sup>rd</sup> Feb., 2018, during Apogee-2018, BET Nite-January, 22<sup>nd</sup>, 2018, Dhwani-Sep.-15, 2018, Bosm inauguration- 19<sup>th</sup> Sep., 2018, Tarang, During OASIS, on 29<sup>th</sup> October, 2018, Axetacy, Gutar solo compation, during OASIS, on 30<sup>th</sup> October, 2018, Drums dual competition in OASIS, on 30<sup>th</sup> October, 2018, Free Jam event in OASIS, during 31<sup>st</sup> October and 1<sup>st</sup> November, 2018.

**B1.10.9 Department: Mathematics**

Number of faculty members (as on 31 December 2018)

Professors	03
Associate Professors	07
Assistant Professors	10
Lecturers	00
Visiting Faculty	00

Head of the Department: Prof. B K Sharma

Contact details: bksharma@pilani.bits-pilani.ac.in

Number of Ph. D. Scholars: 25

Ph.D. Thesis Submitted during the year: 01

Ph.D. Thesis Awarded during the year: NIL

**A. SPONSORED RESEARCH ACTIVITIES:**

Total number of Funds (Sponsored Projects, funds through various programs) in the department: 03

2. Projects funds sanctioned during the year : 02

Principal Investigator	Title of the Project	Funding Agency	Amount and Duration
Dr. Gaurav Dwivedi	A Study of Polyharmonic boundary value problems with exponential nonlinearities	BITS Pilani	Rs. 200000 2018-2019
Dr. Sumanta Pasari (Indian-side PI)	Seismic Hazard Assessment of Indian Himalayan Arc by Geodetic and Seismological Data	Ministry of Education, Taiwan	NTD 200000 (~Rs. 450000) (one year; 2018)
Dr. Shivi Agarwal, Dr. Trilok Mathur (Co-PI)	A Benchmark Analysis of Public Transport Sector of Rajasthan: DEA Approach	DST, Rajasthan	Rs. 559000 2018-2010

Projects completed this year: 01

Principal Investigator: Dr. Sumanta Pasari (Indian-side PI)

**C. PUBLICATIONS**

C1. Publications in international/National refereed journals

S.No	Authors	Title of the Publication	Details of the Journal	National/ International	Year
1.	Dubey B., Agarwal S, and Kumar A.	Optimal harvesting policy of a prey-predator model with Crowley-Martin-type functional response and stage structure in the predator	Nonlinear Analysis: Modelling and Control, 23(4): 493-514	International	2018
2.	Dubey P., Dubey U. S. and Dubey B.,	Modeling the Role of Acquired Immune Response and Antiretroviral Therapy in the Dynamics of HIV Infection	Mathematics and Computers in Simulation, 144:120-137	International	2018
3.	Kumar D.	A collocation scheme for singular boundary value problems arising in physiology	Neural Parallel and Scientific Computing, 26(1), 95-118	International	2018
4.	Kumar D.	A collocation method for singularly perturbed differential-difference turning point problems exhibiting boundary/interior layers	Journal of Difference Equations and Applications, 24(12), 1847-1870	International	2018
5.	Kumar D.	An implicit scheme for singularly perturbed parabolic problem with retarded terms arising in computational neuroscience,	Numerical Methods for Partial Differential Equations,34(6),1933-1952	International	2018

S.No	Authors	Title of the Publication	Details of the Journal	National/International	Year
6.	Kumar D.	A parameter-uniform method for singularly perturbed turning point problems exhibiting interior or twin boundary layers	International Journal of Computer Mathematics, <a href="https://doi.org/10.1080/00207160.2018.1458098">https://doi.org/10.1080/00207160.2018.1458098</a> .	International	2018
7.	Kumar D., Kumari P.	A parameter-uniform numerical scheme for the parabolic singularly perturbed initial boundary value problems with large time delay	Journal of Applied Mathematics and Computing, <a href="https://doi.org/10.1007/s1219">https://doi.org/10.1007/s1219</a>	International	2018
8.	East J., Kumar J., Mitchell J.D., Wilson W	Maximal subsemigroups of finite transformation and diagram monoids	Journal of Algebra, 504, 176-216	International	2018
9.	Ozgur A., Nihan K., Kumar S., Nunes R.C., Sami M.	Cosmological implications of scale-independent energy-momentum squared gravity: Pseudo nonminimal interactions in dark matter and relativistic relics	Phys. Rev. D, 98, 063522	International	2018
10.	Kumar S., Nunes R.C., Yadav S.K.	Cosmological bounds on dark matter-photon coupling	Phys. Rev. D, 98, 043521	International	2018
11.	Ozgur A., Nihan K., Kumar S.,	Cosmic acceleration in a dust only Universe via energy-momentum powered gravity	Phys. Rev. D, 97, 024011	International	2018
12.	Pasari S.	Nowcasting earthquakes in the Bay-of-Bengal Region	Pure and Applied Geophysics (in print)	International	2018
13.	Tiwari A, Narayan AB, Dwivedi R, Swadeshi A, Pasari S, Dikshit O	Geodetic investigation of landslides and land subsidence: case study of the Bhurkunda coal mines and the Sirobagarh landslide	Survey Review (in print)	International	2018
14.	Pasari S.	Stochastic modeling of earthquake interoccurrence times in northwest Himalaya and adjoining regions	Geomatics, Natural Hazards and Risk 9(1): 568–588	International	2018
15.	Pasari S, Dikshit O	Stochastic earthquake interevent time modeling from exponentiated Weibull distributions	Natural Hazards 90(2): 823–842	International	2018
16.	Choudhary V, Rakhee, Routroy S	State-of-the-art literature review on inventory models for perishable products	Journal of Advances in Management Research	International	2018
17.	Sharma S, Maiti D K, Alam M M, Sharma B K	Nanofluid (H <sub>2</sub> O – Al <sub>2</sub> O <sub>3</sub> /CuO) flow over a heated square cylinder near a wall under the incident of Couette flow.	Journal of Mechanical Science and Technology, 32 (2), 659-670.	International	2018
18.	Tripathi, B., Sharma B K:	Influence of heat and mass transfer on two-phase blood flow with joule heating and variable viscosity in the presence of variable magnetic field.	International Journal of Computational Methods., <a href="https://doi.org/10.1142/S0219876218501396">doi.org/10.1142/S0219876218501396</a>	International,	2018
19.	Tripathi, B., Sharma B K,	Effect of heat transfer on MHD blood flow through an inclined stenosed porous artery with variable viscosity and heat source	Romanian J. Biophys, 28(3), 89-102.	International,	2018
20.	Tripathi, B., Sharma B K,	Effect of variable viscosity on MHD inclined arterial blood flow with chemical reaction	Int. J. of Applied Mechanics and Engineering, 23(3), 767-785.	International,	2018
21.	Shekhawat K.,	Enumerating generic rectangular floor plans	Automation in Construction, 92: 151-165	International,	2018



S.No	Authors	Title of the Publication	Details of the Journal	National/International	Year
22.	Shekhawat, K., Duarte, J.P.	Introduction to generic rectangular floor plans	Artificial Intelligence for Engineering Design, Analysis and Manufacturing, 32(3): 331-350	International,	2018
23.	Tiwari A., Yadav P.K., Singh P.	Stokes Flow Through Assemblage of Non-homogeneous Porous Cylindrical Particles Using Cell Model Technique	NASI Letters, 41(1), 53-57	International,	2018
24.	Yadav P.K., Tiwari A., Singh P.	Hydrodynamic permeability of a membrane built up by spheroidal particles covered by porous layer	Acta Mechanica, 229, ,1869-1892	International	2018
25.	Tiwari A., Chauhan S.S.	Effect of Varying Viscosity on Two-Fluid Model of Blood Flow through Constricted Blood Vessels: A Comparative Study	Cardiovascular Engineering and Technology (accepted)	International	2018
26.	Yadav S., Pani A.K.	Superconvergence of a class of Expanded Discontinuous Galerkin Methods for Fully Nonlinear Elliptic Problems in Divergence Form	J. Comput. Appl. Math., 333, 215-234.	International	2018
27.	Yadav S., Pani A.K.	Superconvergent Discontinuous Galerkin Methods for Nonlinear Parabolic Initial and Boundary Value Problems	Journal of Numerical Mathematics (accepted)	International	2018

#### C2. Publications in the proceedings of international/national conferences:

- 1) Sharma Y., Pasari S., Dikshit O., and Ching K. E., GPS-Based Monitoring of Crustal Deformation in Garhwal-Kumaun Himalaya , Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-5, 451-454, 2018 (scopus)
- 2) Bhatia A., Pasari S. and Mehta A., Earthquake Forecasting Using Artificial Neural Networks, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-5, 823-827, 2018 (scopus)
- 3) Pasari S. and Mehta A., Nowcasting Earthquakes in the Northwest Himalaya and Surrounding Regions, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-5, 855-859, 2018 (scopus)
- 4) Rakhee, Jain M, Prioritized Call Admission Control for Cellular Mobile Network, in proceedings of National Conference in Applied Science and Humanities, held at Thakur College of Engineering and Technology, Mumbai, 23-24, Feb 2018.
- 5) Tripathi, B., Sharma, B K, Influence of heat and mass transfer on MHD two-phase blood flow with radiation, AIP Conference Proceedings, Vol. 1975, 030009:1-9, 2018.
- 6) Sharma B K, Sharma M, Gaur R K, Effect of chemical reaction on Jeffrey fluid model of blood flow through tapered artery with thermo-diffusion and diffuso-thermal gradients. Proceeding: Third Thermal and Fluids Engineering Conference, ASTFE Digital Library, Vol. 18, 1103-1115, 2018.

#### C3. CONFERENCES ATTENDED/PAPERS PRESENTED

- 1) Agarwal, S presented the work "DEA models for exogenously fixed variables under fuzzy environment" in Third International Conference on Intelligent Communication, Controls and Device-2018, organized by UPES Dehradun during Dec 21-22, 2018
- 2) Dwivedi, G. presented the work "Existence of a solution to singular semilinear polyharmonic equation with exponential nonlinearity" at AIMS conference on Dynamical Systems, Differential Equations and Applications July 5 - July 9, 2018 Taipei, Taiwan.
- 3) Mathur, T presented a paper entitled "Hierarchy of Sectors in BSE SENSEX for Optimal Equity Investments using Fuzzy AHP" in Third International Conference on Intelligent Communication, Controls and Device-2018, organized by UPES Dehradun during Dec 21-22, 2018. (Co-Authored with Mr. P. Satya and Dr. Shivi Agarwal).
- 4) Pasari, S presented the work "Seismotectonic Modeling in the Bay-of-Bengal Region" in AOGS-EGU Joint Conference, Tagaytay, Phillipines, February 04-08, 2018
- 5) Pasari, S presented the work Stochastic Modeling of Earthquake Interevent Counts (Natural Times) in Northwest Himalaya and Adjoining Regions in the International Conference on Applied and Computational Mathematics (ICACM 2018) at IIT Kharagpur during Nov 23-25, 2018.

- 6) Rakhee presented a work in National Conference in Applied Science and Humanities, held at Thakur College of Engineering and Technology, Mumbai, 23-24, Feb 2018.
- 7) Rakhee attended National Conference on "Modeling, Optimization and Computing for Engineering Problems: Use of Technical Hindi Terminology" held at IIT Roorkee, Roorkee, Uttarakhand, during 12-14 October, 2018.
- 8) Sharma, B.K. attended International Conference on 'Life Science Research & its Interface with Engineering and Allied Sciences' 1-3 November, 2018, at BITS Pilani, Pilani Campus.
- 9) Yadav, S. attended International Congress of Mathematicians, Rio de Janeiro, Brazil, Aug. 01-09, 2018.

#### C. WORKSHOPS ATTENDED

1. Pasari, S attended a training Course on "Earthquake Hazard and Risk Assessment in East Asia", during 1-5 October, 2018 at Academia Sinica, Taipei, Taiwan.

#### D. BOOKS PUBLISHED/EDITED DURING THE YEAR: NIL

#### E. CONFERENCES, SYMPOSIUM, SEMINARS & WORKSHOPS CONDUCTED : NIL

#### F. INVITED TALKS GIVEN BY BITS FACULTY

- 1) Dubey, B. (2018) delivered an invited talk on "Modelling the effect of harvesting in a prey-predator system with stage structure in predator" in an International Conference on Mathematical Modeling and Computations in Biology held at IIT Roorkee during March 12-14, 2018.
- 2) Kumar, D. (2018) delivered an invited talk in a 3-week refresher course on Computational and Mathematical Studies (Computer Science, Mathematics Statistics) organized by HRDC, Jamia Millia Islamia University, New Delhi during 29 August to 19 September 2018
- 3) Mathur, T. (2018) delivered an invited talk titled "Fractional Calculus and It's Applications" in Technical Education Quality Improvement Programme (TEQIP) at Jaipur Engineering College, Kookas, Jaipur on 04/09/2018.
- 4) Shekhawat, K. (2018) delivered an Invited talk entitled A theory of rectangular and orthogonal layouts with applications at International Conference on Discrete Mathematics and its Applications to Network Science (ICDMANS-2018), held at BITS Pilani, Goa Campus from 7-10 July 2018.

#### G. INVITED TALKS ARRANGED IN THE DEPARTMENT : 03

- 1) Prof. Vijay M. Patankar (JNU Delhi) delivered an invited talk on "Matrix groups having integer coefficients and their actions with applications to primes that can be written as sum of two squares" on 19-March, 2018.
- 2) Prof. G Rangarajan (IISC Bangalore) delivered an invited talk on "Sparse Network Representation of High Dimensional Time Series Data" on 15-October, 2018.
- 3) Prof. Joydev Chattopadhyay (ISI Kolkata) delivered an invited talk on "Ecological Modelling: Past, Present, and Future" on 02-November, 2018.

#### H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS:

- 1) Prof. Suresh Kumar is selected as an Individual Member of International Astronomical Union (IAU)

#### I. FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION: NIL

- 1) Dr. Sumanta Pasari has established an international collaboration with Prof. Kuo-En Ching from the Department of Geomatics, National Cheng Kung University, Taiwan.

#### J. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR: NIL

#### K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES

Mathematics Association conducted the following activities during 2018:

- 1) VolleyBall Match - (4 February, 2018) - Faculties, PHD Scholars and students took part.
- 2) APOGEE Events-
  - a) Gambling Mathematics- Open for all BITSians
  - b) Join and Win - Open for all BITSians on portal.
  - c) Zombie Mathematics- Open for all Bitsian
- 3) Farewell and Grub - (21 April, 2018) - Farewell and felicitations to our senior and grub for students and faculties.
- 4) Teachers Day Celebration - (5 September, 2018) - Fun events and interactions with our faculties.
- 5) B4MO- (15 September, 2018) - A Mathematics Olympiad for all BITSians.

## B1.10.10 Department of Mechanical Engineering

Number of faculty members (as on 31 December 2018, on-campus (off-campus))

Senior Professors, Professors	05
Associate Professors	04 (03)
Assistant Professors	16 (06)
Visiting Assistant Professors	02
Lecturer	01

Head of the Department: Prof. Mani Sankar Dasgupta

Contact details: dasgupta@pilani.bits-pilani.ac.in

Number of PhD Scholars: 29 (on-campus)

Ph.D. Thesis Submitted during the year: 03

## A. SPONSORED RESEARCH ACTIVITIES

Total number of Sponsored Projects in the department: 10

Details are given below.

## (i) Ongoing projects:

1. DAAD: JINGEL – Joint indo-German Experience Lab, PI: Prof. K. S. Sangwan, Euro 346954, 2016-19.
2. Department of Science and Technology (DST) Rajasthan: Design of healthcare supply chain for enhancing availability and reducing wastage of generic medicines for rural areas in Rajasthan, PI: Prof. Srikanta Routroy, Co-PI: Dr. Sunil Dubey, Rs. 5.88 Lakhs, 2016-19.
3. Department of Science and Technology (DST): Modelling immune response to salmonella during typhoid, PI: Amol M. Marathe, Rs. 43.52 Lakhs, 2015-18.

## (ii) Projects sanctioned during the year

1. Rajasthan DST: Development of e-waste management strategies for selected e-products in Rajasthan, PI M S Dasgupta, Co-Pi Srikanta Routroy ₹ 7.536 lakhs
2. DST-TIDE: Design and Development of a Power Assistive Hybrid e- Trike for Differently Abled Person in Rural and Urban Regions of India, PI: Sachin U. Belgamwar, CoPI: J S Rathore. ₹ 92.00 lakhs\*(Collaboration with CEERI).
3. ARDB: Development of a fault diagnosis scheme for Aero-Bearing with multiple localized defect using non-linear mathematical modeling and experimental analysis. PI: Arun Kumar Jalan, Co PI: Sachin U. Belgamwar ₹ 15.55 lakhs.
4. DBT: ReValue: Innovative technologies for improving resource utilization in the Indo-European fish value chains. PI: S. Bhattacharyya, Co PI: M S Dasgupta, S. Routroy. ₹ 120.00 lakhs.
5. TI India Ltd.. Chennai. Study of Lubricant and application method for enhanced surface finish and reduced draw load on cold drawn steel tubes. ₹ 27.44 lakhs\*(Collaboration with BITS Goa and BITS Hyderabad).
6. BITS-CRG: An investigation of energy consumption of machine tools. PI: Girish Kant. ₹ 9.65 lakhs
7. BITS-CRG: Experimental studies on mechanical response of biological cells. PI: Venkatesh KP. ₹ 8.2 lakhs
8. BITS Pilani RIG: Development of PLA and ABS hybrid filaments for strength enhancement and biomedical applications. PI: Varun Sharma. ₹ 2.00 lakhs.
9. BITS Pilani RIG: Numerical evaluation of influence of protein expression levels on the mechanical response of a cell. PI: Venkatesh KP. ₹ 2.00 lakhs.
10. BITS Pilani RIG: BITS Pilani RIG: Green Infrastructural Interventions for Combating Air Pollution in the National Capital Region. PI: Aakash Chand Rai. ₹ 2.00 lakhs.

## a) Research Related Seminar/ Workshop

S.No.	Workshop/ Invited talks	External Resource Persons
1.	Two day workshop on "Condition monitoring and NVH". 14-15 February 2018.	Prof. Chandramouli P., IIT Madras Prof. A. R. Mohanty, IIT Kharagpur Dr. Lokesh Agrawal, NBC bearings
2.	"Industry asset management through condition monitoring", 14 February 2018	Dr. Lokesh Agrawal, NBC bearings
3.	"Why do we need sports engineering", 21 October 2018	Ms Maja Neubert, Technical University of Chemnitz Germany
4.	"Introduction to Six Sigma", 12 November 2018	Mr. Vikram Bhargava, ex-director of mechanical engineering services at Motorola Solutions in Holtsville, NY
5.	"Plastics Engineering", 12 November 2018	Mr. Vikram Bhargava, ex-director of mechanical engineering services at Motorola Solutions in Holtsville, NY

## b) Industry connect training programs conducted.

S.No.	Program	Faculty	Location	Duration	Number of Participants
1.	Fatigue, Fracture and Creep related life prediction techniques	P.Srinivasan	Vishakapatnam Steel Plant, Vishakapatnam	30-31 January 2018	60
2..	Fatigue, Fracture and Creep related failure of industrial components	P.Srinivasan	Hirmi cement Works, Hirmi	21-23 July 2018	30
3.	Materials for Constructions (MOC)	P.Srinivasan	Grasim Industries, Nagda Vilayat	28-29 September 2018	15
4.	Bioler Technology	P.Srinivasan, Manoj Soni	Grasim Industries, Nagda Vilayat	24-25 August 2018	15

## Research Publications in journals/books

S.No	Title of the Publications	Authors	Name of the Journal	Volume and Page Number
1.	Harness enough energy for locomotion of an artificial nanoswimmer: Design and simulation	Nain S., Rathore J.S., Sharma N.N.	AIP Conference Proceedings	Volume 1989. Pages 020032
2.	Experimental investigation of a CO <sub>2</sub> trans-critical cycle with IHX for chiller application and its energetic and exergetic evaluation in warm climate	Purohit N., Gupta D.K., Dasgupta M.S.	Applied Thermal Engineering	Volume 136, Pages 617-632
3.	Experimental studies on an air-cooled natural circulation loop based on supercritical carbon dioxide – Part A: Steady state operation	Sadhu S., Ramgopal M., Bhattacharyya S.	Applied Thermal Engineering	Volume 133, Pages 809-818
4.	Experimental studies on an air-cooled natural circulation loop based on supercritical carbon dioxide – Part B: Transient operation	Sadhu S., Ramgopal M., Bhattacharyya S.	Applied Thermal Engineering	Volume 133, Pages 819-827
5.	Benchmarking manufacturing industries based on green	Sangwan K.S., Choudhary K.	Benchmarking	Volume 25, Pages 1746-1761

S.No	Title of the Publications	Authors	Name of the Journal	Volume and Page Number
	practices			
6.	Measuring interdependencies of preferred supplier enablers	Sunil Kumar C.V., Routroy S.	Benchmarking	Volume 25, Pages 2344-2369
7.	Sustainability assessment in manufacturing organizations: Development of assessment models	Sangwan K.S., Bhakar V., Digalwar A.K.	Benchmarking	Volume 25, Pages 994-1027
8.	Integrated supermarket refrigeration for very high ambient temperature	Purohit N., Sharma V., Sawalha S., Fricke B., Llopis R., Dasgupta M.S.	Energy	Volume 165, Pages 572-590
9.	Field investigations to determine the thermal performance of earth air tunnel heat exchanger with dry and wet soil: Energy and exergetic analysis	Misra R., Jakhar S., Agrawal K.K., Sharma S., Jamuwa D.K., Soni M.S., Agrawal G.D.	Energy and Buildings	Volume 171, Pages 107-115
10.	Multivariable regression model for Fox depth correction factor	Mittal R.K., Rawat S., Bansal P.	Frontiers of Structural and Civil Engineering	Volume , Pages 1-7
11.	Effect of compression ratio on combustion and emission characteristics of C.I. Engine operated with acetylene in conjunction with diesel fuel	Choudhary K.D., Nayyar A., Dasgupta M.S.	Fuel	Volume 214, Pages 489-496
12.	Developing the preferred supplier relationships – A case study	Sunil Kumar C.V., Routroy S.	International Journal of Intelligent Enterprise	Volume 5, Pages 108-124
13.	Implementation performance of agile manufacturing: A graph theoretic approach	Potdar P.K., Routroy S.	International Journal of Productivity and Quality Management	Volume 24, Pages 346-372
14.	Analysis of CO <sub>2</sub> based refrigeration systems with and without ejector for simultaneous pasteurization and chilling of milk [Analyse des systèmes frigorifiques au CO <sub>2</sub> avec et sans éjecteur pour la pasteurisation et la réfrigération simultanées du lait]	Ahammed M.E., Bhattacharyya S., Ramgopal M.	International Journal of Refrigeration	Volume 95, Pages 61-72
15.	Environmental impact assessment of a ceramic tile supply chain—a case study	Sangwan K.S., Choudhary K., Batra C.	International Journal of Sustainable Engineering	Volume 11, Pages 211-216
16.	Application of Fuzzy TOPSIS for evaluating machining techniques using sustainability metrics	Digalwar A.K.	IOP Conference Series: Materials Science and Engineering	Volume 346
17.	Comparison of Piezo-material based Energy Transduction Systems for Artificial Nanoswimmer	Nain S., Rathore J.S., Sharma N.N.	IOP Conference Series: Materials Science and Engineering	Volume 346
18.	Creep life prediction of super heater coils used in coal based thermal power plants subjected to fly ash erosion and oxide scale formation	Srinivasan P., Kushwaha S.	IOP Conference Series: Materials Science and Engineering	Volume 346 (2018) 012008
19.	Development of an Empirical Model for Optimization of Machining Parameters to	Garg G.K., Garg S., Sangwan K.S.	IOP Conference Series: Materials Science and	Volume 346

S.No	Title of the Publications	Authors	Name of the Journal	Volume and Page Number
	Minimize Power Consumption		Engineering	
20.	Improvisation of mechanical and electrical properties of Cu by reinforcing MWCNT using modified electro-co-deposition process	Belgamwar S.U., Sharma N.N.	IOP Conference Series: Materials Science and Engineering	Volume 346
21.	Moisture Absorption Behaviour of Biopolymer Polycaprolactone (PCL) / Organo Modified Montmorillonite Clay (OMMT) biocomposite films	Malik N., Shrivastava S., Ghosh S.B.	IOP Conference Series: Materials Science and Engineering	Volume 346
22.	Study of fracture toughness and bend test morphologies of HVOF sprayed Cr3C2-25% NiCr coating after heat treatment	Shrivastava S., Upadhyaya R.	IOP Conference Series: Materials Science and Engineering	Volume 346
23.	Transferring experience labs for production engineering students to universities in newly industrialized countries	Leiden A., Posselt G., Bhakar V., Singh R., Sangwan K.S., Herrmann C.	IOP Conference Series: Materials Science and Engineering	Volume 297
24.	Analysis of Agility Performance of Supply Chain: A Case Study on Indian Automotive Manufacturer	Routroy S., Sharma S., Bhardwaj A.	IOP Conference Series: Materials Science and Engineering	Volume 346
25.	Entropy generation in water-based natural circulation loop	Inampudi S.T., Marthi B., Sahoo S.	Journal of Heat Transfer	Volume 140
26.	Steady-State Analysis of a High-Temperature Natural Circulation Loop Based on Water-Cooled Supercritical CO2	Sadhu S., Ramgopal M., Bhattacharyya S.	Journal of Heat Transfer	Volume 140
27.	Development of an integrated performance measurement framework for lean organizations	Sangwa N.R., Sangwan K.S.	Journal of Manufacturing Technology Management	Volume 29, Pages 41-84
28.	Leanness assessment of organizational performance: a systematic literature review	Sangwa N.R., Sangwan K.S.	Journal of Manufacturing Technology Management	Volume 29, Pages 768-788
29.	Organically Modified Nanoclay and Aluminum Hydroxide Incorporated Bionanocomposites towards Enhancement of Physico-mechanical and Thermal Properties of Lignocellulosic Structural Reinforcement	Malik N., Kumar P., Ghosh S.B., Shrivastava S.	Journal of Polymers and the Environment	Volume 26, Pages 3243-3249
30.	Design optimization of heat pipes using elitism-based self-adaptive multipopulation Jaya algorithm	Rao R.V., Saroj A., Bhattacharyya S.	Journal of Thermophysics and Heat Transfer	Volume 32, Pages 702-712
31.	Improving supply chain performance by Supplier Development program through enhanced visibility	Pradhan S.K., Routroy S.	Materials Today: Proceedings	Volume 5, Pages 3629-3638
32.	Analysis of Agile Manufacturing Enablers: A Case Study	Kumar Potdar P., Routroy S.	Materials Today: Proceedings	Volume 5, Pages 4008-4015
33.	Lean supplier management for better cost structures	Sunil Kumar C.V., Routroy S., Mishra R.K.	Materials Today: Proceedings	Volume 5, Pages 18941-18945
34.	Measuring Carbon Footprint of an Indian University Using Life Cycle Assessment	Sangwan K.S., Bhakar V., Arora V., Solanki P.	Procedia CIRP	Volume 69, Pages 475-480
35.	Development of a Structured	Sihag N., Sangwan K.S.,	Procedia CIRP	Volume 69, Pages

S.No	Title of the Publications	Authors	Name of the Journal	Volume and Page Number
	Algorithm to Identify the Status of a Machine Tool to Improve Energy and Time Efficiencies	Pundir S.		294-299
36.	Sustainability Assessment Framework for Manufacturing Sector - A Conceptual Model	Bhakar V., Digalwar A.K., Sangwan K.S.	Procedia CIRP	Volume 69, Pages 248-253
37.	Development of a Multi-criteria Optimization Model for Minimizing Carbon Emissions and Processing Time during Machining	Sihag N., Sangwan K.S.	Procedia CIRP	Volume 69, Pages 300-305
38.	Comparative Study Using Life Cycle Approach for the Biodiesel Production from Microalgae Grown in Wastewater and Fresh Water	Raghuvanshi S., Bhakar V., Chava R., Sangwan K.S.	Procedia CIRP	Volume 69, Pages 568-572
39.	Identification of Critical Components Using ANP for Implementation of Reliability Centered Maintenance	Gupta G., Mishra R.P.	Procedia CIRP	Volume 69, Pages 905-909
40.	Comparative Analysis for Solar Energy Based Learning Factory: Case Study for TU Braunschweig and BITS Pilani	Sangwan K.S., Herrmann C., Soni M.S., Jakhar S., Posselt G., Sihag N., Bhakar V.	Procedia CIRP	Volume 69, Pages 407-411
41.	Energetic and environmental performance evaluation of AR744 multi-ejector enhanced parallel compression system in high ambient temperature locations	Gullo P., Purohit N., Dasgupta M.S., Hafner A.	International Journal of Refrigeration	Volume 2018-April, Pages 385-392
42.	Energetic and exergetic investigation of a modified dual temperature transcritical refrigeration cycle with two cascade ejectors	Choudhary K.D., Dasgupta M.S., Sunder S.	International Journal of Refrigeration	Volume 2018-April, Pages 500-507
43.	Experimental investigation of CO <sub>2</sub> trans-critical refrigeration system with and without internal heat exchanger for warm climate	Purohit N., Gupta D.K., Dasgupta M.S.	International Journal of Refrigeration	Volume 2018-June, Pages 968-975
44.	Exergetic analysis of CO <sub>2</sub> transcritical refrigeration system with and without internal heat exchanger using experimental data	Purohit N., Gupta D.K., Dasgupta M.S.	International Journal of Refrigeration	Volume 2018-April, Pages 566-574
45.	Heat transfer and generation analysis of alumina/water nanofluid in a flat plate PV/T collector under equal pumping power comparison criterion	Purohit N., Jakhar S., Gullo P., Dasgupta M.S.	Renewable Energy	Volume 120, Pages 14-22
46.	Performance evaluation of a CO <sub>2</sub> scroll expander for work recovery using artificial neural network	Singh S., Dasgupta M.S.	Science and Technology for the Built Environment	Volume 24, Pages 580-587
47.	Comparative Performance Assessment of a Hybrid Solar-Coal Power Plant, Process Integration and Optimization for Sustainability	Baloda Sunil, Manoj S. Soni	Process Integration and Optimization for Sustainability, Springer	Pages 1-9 Online ISSN 2509-4246
48.	Thermal Modeling of a Rooftop Photovoltaic/Thermal System With Earth Air Heat Exchanger	Sanjeev Jakhar, Manoj S Soni, Robert F Boehm	Journal of Solar Energy Engineering	Volume 140, Issue 3, Pages 031011-031011-15

S.No	Title of the Publications	Authors	Name of the Journal	Volume and Page Number
	for Combined Power and Space Heating			
49.	Performance analysis of vehicle assembly line using discrete event simulation modelling	Akshay Sarda and A K Digalwar	International Journal of Business Excellence	Vol 14, Issue 2, pp. 240-255
50.	Newtonian Flow past a Hollow Frustum in Vertical and Inclined Plane: An Experimental Observation for Terminal Velocity and Drag Coefficient	Samantaray S.K., Rout B.K., Mohapatra S.S., Munshi Basudeb	Powder Technology	Volume 326, pp. 114-122
51.	Microfluidic platform for dielectrophoretic separation of bio-particles using serpentine microelectrodes	Paridhi Puri, Vijay Kumar, Sachin Belgamwar, and N.N. Sharma	Microsystem Technologies	<a href="https://doi.org/10.1007/s00542-018-4174-x">https://doi.org/10.1007/s00542-018-4174-x</a>
52.	Microfluidic Device for Cell Trapping with Carbon Electrodes Using Dielectrophoresis	Paridhi Puri, Vijay Kumar, Sachin Belgamwar, and N.N. Sharma	Biomedical Microdevices	<a href="https://doi.org/10.1007/s10544-018-0350">https://doi.org/10.1007/s10544-018-0350</a>
53.	Numerical evaluation of residual stresses induced during metal cutting	Amrutesh Varmaa, Abhijit Desai, Amar Sankannaa, R Shiva Shankar, K P Venkatesh, Amit Sindhoora	Materials Today: Proceedings	Vol. 5, Issue 11, pp. 25501-25508
54.	Analysis of manufacturing supply chain agility performance using Taguchi Loss Functions and Design of Experiment	Srikanta Routroy, Aayush Bhardwaj; Satyendra Sharma; Bijay Rout	Benchmarking: an International Journal	Vol. 25 No. 8, pp. 3296-3319
55.	Modeling Supplier Development Barriers in Indian Manufacturing Industry	Sunil Kumar C V and Srikanta Routroy	Asia Pacific Management Review	Vol. 23 No. 4 (December), pp. 235-250
56.	Measuring the Environmental Sustainability of Supply Chain for Indian Steel Industry: A Graph Theoretic Approach	Shishir Goyal, Srikanta Routroy and Harshal Shah	Business Process Management Journal	Vol. 24 No. 2, pp. 517-536
57.	State of the art literature review on Inventory Models for Perishable Products	Vaibhav, Rakhe Kulshrestha and Srikanta Routroy	Journal of Advances in Management Research	Vol. 15 No. 3, pp. 306-346

List of faculty members who presented papers in various conferences

S.No.	Title of the Publication	Authors	Name of Conference	Venue and Date of Conference
1.	Applying swing-leg retraction on an actuated spring loaded inverted pendulum model	Singh R., Rout B.K.	2nd International Conference on Inventive Systems and Control	Coimbatore, India 19-20 January 2018
2.	Identification of Sustainable Energy Source for Indian Climatic Conditions: A MCDM Approach	Saraswat Santosh and Digalwar A K	International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018)	IISc. Bangalore during 31 Dec 2017 to 3 Jan 2018
3.	System Dynamics Approach for the Assessment of Leanness of Organizations	Digalwar A K, Bedekar Akshay and Agrawal Mohit	2018 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM2018)	Bangkok, Thailand, 16-19 Dec 2018.
4.	Analysis of Sustainable Machining Process : A Multicriteria Decision Making Approach	Wankhede Sahil and Digalwar A K	ICMBAT 2018 & AIP Conference	K D K College of Engineering Nagpur 14-15 Dec 2018
5.	Assessment of Maintenance Improvement using OEE approach: A case of Indian Manufacturing	Wankhede Sahil and Digalwar A K	12th Annual ISDSI International Conference	SPJIMR Mumbai 27-30 December 2018



S.No.	Title of the Publication	Authors	Name of Conference	Venue and Date of Conference
	Industry			
6.	Location Analysis and Layout improvement of Agricultural Warehouse	Digalwar A K and Samantoroy Premchand	12th Annual ISDSI International Conference	SPJIMR Mumbai 27-30 December 2018
7.	Applications of Industrial IoT in Manufacturing Industry for Predictive Maintenance: A Survey	Deshpande Pranav, Digalwar A K and Digalwar Mayuri	12th Annual ISDSI International Conference	SPJIMR Mumbai 27-30 December 2018
8.	Evaluation of Sustainable Energy Sources in India: A Fuzzy AHP Approach	Sarswat Santosh, Digalwar A K and Yadav Shyam Sunder	12th Annual ISDSI International Conference	SPJIMR Mumbai 27-30 December 2018
9.	Sustainability Comparison between Electric and Diesel Buses A Case Study	Rastogi Arpit and Digalwar A K	12th Annual ISDSI International Conference	SPJIMR Mumbai 27-30 December 2018
10.	Identification and Analysis of Social Factors Responsible for Growth of Electrical Vehicles Manufacturing in India	Bedekar Akshay and Digalwar A K	12th Annual ISDSI International Conference	SPJIMR Mumbai 27-30 December 2018
11.	Industry 4.0 Implementation: Evidence from Indian manufacturing industries	Sharma Ankur and Digalwar A K	12th Annual ISDSI International Conference	SPJIMR Mumbai 27-30 December 2018
12.	Numerical simulation of clot movement inside cerebral blood vessels	Sreenivas Venguru, Shyam Sunder	SWAYAM 2018	BITS Goa July 5-6 2018
13.	Development of a framework for reliability centered maintenance	Gupta, G., Mishra, R.P., Mundra, N.	8th International Conference in Industrial Engineering and Operations Management, Bandung, Indonesia	Indonesia, 6-8 March, 2018.
14.	Identification of critical components using anp for implementation of reliability centered maintenance	Gupta, G., Mishra, R. P.	25th CIRP conference on life cycle engineering	Copenhagen, Denmark, April 30 – May 02, 2018.
15.	Comparative analysis of traditional and fuzzy FMECA approach for criticality analysis of a conventional lathe machine	Gupta, G., Mishra, R.P.	9th International Conference on Quality, Reliability, Infocom Technology and Business Operations	Delhi, India, Dec. 27-29, 2018.
16.	Experimental Study of Rolling Element Bearing with Localized Defect using Response Surface Methodology	Gunerkar R, Jalan, A. K. and Belgamwar, S.U	ASCADM 2018	Patna, 4-6 June 2018
17.	Comparative Study of Various Supermarket Refrigerating Systems In European Climate Context	Paride Gullo, Nilesh Purohit, Mani Sankar Dasgupta, Armin Hafner, Krzysztof Banasiak	5th IIR Conference on Sustainability and the Cold Chain	06-08 April 2018 Beijing, China
18.	Implementation of cascade classifier technique for gesture control of an ABB industrial manipulator	Sujeet Telang, B.K. Rout	2nd International Conference on Inventive Systems and Control (ICISC)	Coimbatore 2018
19.	Simulation and Implementation of Calligraphic Writing using ABB 1410 Industrial Manipulator	Ajinkya Joshi, B.K Rout	2nd International Conference on Inventive Systems and Control (ICISC)	Coimbatore 2018
20.	Residual Life Assessment of Super-Heater Coils in Supercritical Thermal Power Plants due to Erosion by Fly-Ash and Oxide Scale Growth	P.Srinivasan and Aarushi Bharghava	O& M Conference IPS2018" Organised by NTPC	13-15 February 2018 at, NTPC, Noida
21.	Analysis of post-harvest supply chain impediments for farmer's	Rahul Priyadarshi, Srikanta	XXII Annual International Conference of the Society	IIM Kozhikode, December 20-22,

S.No.	Title of the Publication	Authors	Name of Conference	Venue and Date of Conference
	profit enhancement and price spread reduction	Routroy and Girish Kant	of Operations Management	2018
22.	A study on Targeted Public Distribution System of Rice: A Supply Chain Perspective	Dhamija, A.S., Routroy Srikanta and Vaish, A. K.	Diamond Jubilee National Convention of IIIE & International Conference	Campus 1 (ITER), Bhubaneswar.
23.	Optimization of Rooftop Solar Installations for Industrial Buildings for Demand Side Management - A Case Study	Vijaykumar Sonawane, Manoj Kumar Soni, Aniket A. Lad	2nd International Conference on Solar Technologies & Hybrid Mini Grids	Campus Universitat de les Illes Balears Palma de Mallorca, Spain, October 17 – 19, 2018
24.	Low cost solar application in laundry and solar drying for Indian villages	Manoj Kumar Soni, Aniket Lad, Harshit Sharma	2nd International Conference on Solar Technologies & Hybrid Mini Grids	Campus Universitat de les Illes Balears Palma de Mallorca, Spain, October 17 – 19, 2018
25.	Numerical simulation of clot movement inside patient specific cerebral blood vessels	Shyam Sunder Yadav	SWAYAM 2018	5-6 July 2018, BITS Goa, India
26.	Experimental investigation of CO <sub>2</sub> trans-critical refrigeration system with and without internal heat exchanger for warm climate,	Nilesh Purohit, Dileep Kumar Gupta, M S Dasgupta	13th IIR-Gustav Lorentzen Conference on Natural Refrigerants	18-20th June 2018, Valencia, SPAIN
27.	Comparative study on a dual temperature transcritical refrigeration cycle with two cascade ejectors,	Kapil Dev Choudhary, M S Dasgupta, Shyam Sunder	13th IIR-Gustav Lorentzen Conference on Natural Refrigerants,	18-20th June 2018, Valencia, SPAIN
28.	Energetic analysis of CO <sub>2</sub> trans-critical refrigeration system with and without internal heat exchanger using experimental data,	Nilesh Purohit, Dileep Kumar Gupta, Mani Sankar Dasgupta	5th IIR Conference on Sustainability and the Cold Chain (ICCC 2018),	06-08 April 2018 Beijing, China
29.	Energetic And Exergetic Investigation of a Modified Dual Temperature Transcritical Refrigeration Cycle With Two Cascade Ejectors,	Kapil Dev Choudhary, M. S. Dasgupta, Shyam Sunder	5th IIR Conference on Sustainability and the Cold Chain (ICCC 2018)	06-08 April 2018 Beijing, China
30.	A Comparative Study On Energetic and Environmental Performance Of An Integrated R744 Multi-Ejector Enhanced Parallel Compression System In High Ambient Temperature Locations	Paride Gullo, Nilesh Purohit, Mani Sankar Dasgupta, Armin Hafner,	5th IIR Conference on Sustainability and the Cold Chain (ICCC 2018)	06-08 April 2018 Beijing, China

#### Awards and honors for BITS faculty

1. Prof A K Digalwar has been felicitated by Decision Sciences Institute USA for the contribution in ISDSI on 30th December 2018 at SPJIMR Mumbai
2. Prof A K Digalwar chaired technical session in 12th Annual ISDSI International Conference held at SPJIMR Mumbai during 27-30 December 2018
3. Prof A K Digalwar delivered a talk on sustainability assessment of manufacturing industries in the 6th Indo-German Workshop on Sustainable Manufacturing and Entrepreneurship during Sept 17-18, 2018 organized by the Indo-German Center for Sustainable Manufacturing a joint venture of BITS Pilani and TU Braunschweig Germany.
4. Prof A K Digalwar delivered an invited talk on Recent Advances in Manufacturing and how to select topics for project work at BNCOE Pusad on 29th September 2018.
5. Prof A K Digalwar delivered an invited talk on “Research Integrity” in National Workshop entitled “Promotion of Academic Integrity and Excellence and Prevention of Plagiarism” on 20th March 2018 organized by Bhartiya Institute of Engineering and Technology Sikar under TEQIP.

6. Prof. M. S. Dasgupta chaired a session at the 13th IIR-Gustav Lorentzen Conference on Natural Refrigerants, Valencia, SPAIN 18-20th June 2018.
7. Prof. BK Rout was invited by DRDO, Hyderabad (R.C.I.) to review a project on "Hemispherical Resonant Gyro for Missile applications" on 5th October 2018.
8. Prof. BK Rout was invited as a Resource Person to the Faculty Development Programme on "Advanced Optimization Techniques" held at MNIT, Jaipur held between 12 October to 21 October 2018. Conducted under the aegis of Ministry of Information and Technology NewDelhi.
9. Prof. BK Rout chaired a Session of the Conference on "Artificial Intelligence, Wargaming and Robotics" on 31st Oct and 1st Nov. 2018, at Military College of Telecommunication Engineering (MCTE), Mhow, Indore, MP India.
10. Prof. BK Rout presented and chaired at the conference "Use of Artificial Intelligence for Data processing in Railways" Organized by Indian Railways, New Delhi on 24th March 2018.
11. Prof. BK Rout attended Board of Studies meeting held on 26th Dec 2018 at Banasthali University, India.
12. Prof. BK Rout became the task force member of a committee identified by Railway Board to look into the AI applications in Indian Railways on 1st May 2018.
13. Prof. M. S. Dasgupta chaired two sessions at the IIR Conference on Sustainability and the Cold Chain Beijing, China 06-08 April 2018.

## Faculty Research Area

S.No.	Name of faculty	Research Area
1	Souvik Bhattacharyya	Thermal Science & Natural Circulation Loops
2	Mani Sankar Dasgupta	Mechanical System Design, Environment Friendly Technologies, CO <sub>2</sub> Transcritical systems
3	Kuldip Singh Sangwan	Manufacturing system design, Green Manufacturing, Lean Manufacturing
4	Bijay Kumar Rout	Industrial Manipulator, Design Modeling and Simulation of Dynamic Systems & optimization
5	Srikanta Routroy	Supply Chain Management, Agile manufacturing, AI in manufacturing systems design
6	P. Srinivasan	Simulation of Metallurgical and Manufacturing processes, Heat transfer modeling
7	Abhijeet K Digalwar	World Class Manufacturing, Sustainable Manufacturing, Lean Manufacturing, Machining Processes
8	Manoj Kumar S Soni	Renewable energy, Exergetic analysis of thermal systems, Spiritual Thermodynamics
9	Arun Maity*	Bionanotechnology, nano-fertilizers, Plant-microbe interactions, AMF root organ culture, Bioremediation, Biomineralization
10	P. B. Venkatraman*	Neuroeconomics
11	Sharad Shrivastava	Non-destructive testing, Biomedical engineering, Mechanics of materials
12	Ravi Shrikrishna Reosekar*	Manufacturing management, Materials management, Six Sigma
13	R P Mishra	Lean Manufacturing, Maintenance Engineering, Operations Management
14	Pavan Kumar Potdar*	Materials Management, Manufacturing Management
15	Naga Vamsi Krishna Jasti*	Lean Thinking, World class manufacturing, empirical studies, green product development
16	Jitendra Singh Rathore	Low Reynold's number hydrodynamics, Nanorobotics
17	Sachin U Belgamwar	Metal-matrix composites, Thermo physical property characterization, Carbon nanotubes
18	Amol M. Marathe	Nonlinear vibrations, Perturbation methods, Mathematical modeling
19	Sudeep Kumar Pradhan*	Supplier development, Supply management, supplier integration, supply chain visibility
20	Palla Murali	Brittle & ductile fracture, Plasticity mechanisms, Atomistic Simulations, Phase field methods
21	Arun Jalan	Fault diagnosis, Machinery condition monitoring

S.No.	Name of faculty	Research Area
22	Srinivas Kota*	Virtual Reality for design, Life Cycle Assessment, Product design, product life cycle design
23	Tufan Chandra Bera	Conventional machining, Non-conventional machining, CAD/CAM/CAE
24	Shyam Sunder Yadav	Incompressible & Compressible Two-Phase Flows with Phase Change, Fluid Structure Interaction, Computational Hemodynamics
25	Prateek Kala	CAD-CAM, Machine Tool Engineering, Manufacturing Process
26	Girish Kant	Manufacturing Science, Metal cutting & machining
27	Akash Rai	Measurements, modeling and control of air pollution in and around buildings, Climate change and its impact on air quality and building energy consumption
28	Venkatesh Kadbur Prabhakar Rao	MEMS, NEMS, Dynamics, Vibroacoustics, Finite Element Methods, Biomechanics, Medical diagnosis
29	A R Harikrishnan	Droplet evaporation, Droplet dynamics, Wetting, Interfacial physics, Evaporation dynamics, Electromagnetic interactions with thermofluidics
30	Aneesh A M	Thermohydraulics of heat transfer devices
31	Ravinder Kumar	Advanced machining process, Hybrid Machining, Micro Machining, Polymer Matrix Composites, Machining of Composites
32	Gaurav Watts	Finite element methods, Meshfree Methods, Composite Structures, Fluid-Structural Interaction
33	Gajanand Gupta	Reliability and Maintenance Engineering, Manufacturing Engineering
34	Dinesh Wamanrao W. *	Microbial and Mycorrhizal Biotechnology, Bionanotechnology, nano-fertilizers, Plant-microbe interactions
35	Uma Maheswari N*	Thermal Engineering
36	Raghu Raman*	Alternate Refrigerants, Energy efficiency, control systems, new product development

\* off-campus faculty

#### DEPARTMENTAL ASSOCIATIONS /CLUB ACTIVITIES

##### (i) Society of Automotive (SAE) Collegiate Club

SAE Collegiate Club, BITS Pilani is a group of budding engineers committed to the promotion of automotive knowledge and technologies. The club has been instrumental in providing students a link between practical and theoretical knowledge. With more than 150 student members, from various disciplines, the club encourages inter-disciplinary approach to finding automotive solutions. The club organizes various activities such as Guest Lectures, Workshops, Quizzes, Project presentation, and Design competitions based on Land and Air transport technologies throughout the academic year. Inspired Karters, the flagship group formed under SAE has been successfully participating in BAJA SAE India, an ATV design challenge and SUPRA SAE India since its inception.

##### (ii) Renewable Energy Club

The Renewable Energy Club is an exclusively a student managed body that operates under CREED. The Club has undertaken active work in organizing competitions, quizzes, carbon footprint analysis and carbon credits. Commercial organizations in these areas have evolved out of this club and are currently owned and operated by BITS alumni.

##### (iii) CRIS

The humanoid robot project sponsored by MIT is closed and final presentation was held in March 2016 at BITS Pilani. Prof. Ishii of Hiroshima University Japan visited CRIS to explore the possibility of collaboration. Student group of this center are engaged to develop Acyut -VI humanoid which is capable of walking in stair case, dribble and capable of doing acrobatics. In year 2018, a team of students from CRIS participated in a robotics competition organized by DRDO. The team became zonal first in the competition March 2018 and a prize worth sixty thousand for their all terrain vehicle project "BUDDY BOT" and demonstrated the prototype in front of eminent scientists from DRDO. The same team is extending the current development into a driverless car.

(iv) Manufacturing Engineering Association (MnA)

Manufacturing Engineering Association (MnA) organized two Events in APOGEE 2018 – ‘Reverse Engineering’ (Kernel) and ‘Innover’. During APOGEE 2018, around 20 Projects and Papers funded by MNA were presented and shown in an exhibition stalls in the FD-3 Lawns. An essay writing competition on the theme – ‘India: the next prospective global manufacturing hub was conducted. Cash prizes and certificates were distributed to winners. Various other activities like Batch Snaps, Arrangement and Distribution, Farewell and Grub, Informal Interaction with newly admitted students of B.E. and M.E. Manufacturing were also conducted. Guest Lecture was conducted on Sustainable SCM conducted in collaboration with IPCD and Dept. of Mechanical Engineering. On Engineer’s Day Poster and Presentation in front of the delegates of the Indo-German Conference on the Topic – “Role of Engineers in Developing India” was organized. There was huge contribution from MNA in the 2 Day Workshop on ‘Additive Manufacturing: Advancements and Recent Trends’. Various project discussion meetings for APOGEE 2018 Projects/Papers were also managed.

(v) EWB club

Engineers Without Borders (EWB) aims to be the beating heart of the engineering movement for sustainable global development, building and evolving engineering capacity throughout the world. EWB is established in september 2018, Engineers Without Borders - BITS Pilani, part of the EWB International family, started off with a project in assessing the re-usability of the waste water off the water coolers in student hostels. In the coming months we'll be focusing on designing a sustainable solution to the drainage problem in the rainy season, and designing & manufacturing a solar cooker for making tea which will later be put to a good use. Among other things, we are also evaluating a possible solution to food waste generated on campus based on the ReFood model.

(vi) Garuda team

Team Garuda is a design team that brings passionate undergraduates together to work on technically challenging projects, providing students across all disciplines the unique opportunity to be a leader in aerospace and innovation. The team founded in August 2017 by a group of six students of BITS Pilani from various disciplines and is supervised by a panel of faculty members. Our aim is to design and model the Vertical Take-Off and Landing (VTOL) Aircrafts for mega-city type environments.

Team won “**Best New Undergraduate Entry**” at American Helicopter Society 35<sup>th</sup> International Student design Competition 2018 . Team Garuda designed Druta, a reconfigurable VTOL for mega-city type environment having variable diameter coaxial tilt rotor and span-wise adaptive wings This is the first time any BITSian team has participated in the competition and the only Indian team to win this competition since 2011 in the undergraduate category. The team has been awarded \$500 as prize money.

Three members of the team presented the paper at the 11<sup>th</sup> National Conference and Exhibition on Aerospace & Defense Related Mechanisms , organised by INSARM, DRDO and ISRO, focused on the recent advances related to design, development, fabrication, testing and analysis as well as future concepts of various aerospace and defence related mechanisms.. The organizers were really impressed by the quality of the work presented and the team was invited for the visit at DRDO labs and was offered 6 months internship to develop the presented further.

The team was invited for an oral presentation in The 7th Asian/Australian Rotorcraft Forum (ARF 2018) held to enhance interaction among the rotorcraft operators, industries, academia, regulators, and maintenances in the Asian and Australian regions. This conference was organized by ARF 2018 Organizing Committee, and sponsored by the local AHS chapters of the participating countries (Korea, China, Australia, India, Singapore, and Japan) as well as the Korean Society for Aeronautical and Space Sciences.

**B1.10.11 Department: Management**Number of faculty members (as on 31<sup>st</sup> December, 2018)

Professor	01
Associate Professor	4
Assistant Professor	08
Visiting faculty and lecturer	01

Head of the Department: Dr. Jyoti

Contact details: Email: jyoti@pilani.bits-pilani.ac.in

Phone: +91-01596515334 (O)

+91-01596-515264 (Direct)

Number of PhD Scholars: 09 (Full Time) + 11 (Part time) + 4 (Aspirant) = 24

Ph.D. Thesis Submitted during the year: 04

Full Time: 02 (Nikita Sharda &amp; Priyanka Bhattacharya)

Part Time: 01 (Manish Dave)

Aspirant: 01 (Parimal Mer chant)

**A. SPONSORED RESEARCH ACTIVITIES & FUNDING**

- (i) Ongoing projects: 5
- (ii) Projects Sanctioned during the year: 3
- (iii) Projects completed in the year:3
- (iv) Consultancy Projects completed this year: 0

(i) Ongoing projects:

S.No	Project Title	Principal/ Co -Principal Investigator	Sponsored Organization	Amount Sanctioned (Rs. In Lacs)
1	Entrepreneurship Development Programs on campus	Prof. Arya Kumar	National Entrepreneurship Network	22,67,000
2.	Measuring the Impact of Socially Responsible Supply Chains and Development of Framework for Implementing Socially Responsible Supply Chains	Dr. Satyendra K. Sharma and Dr. Saurabh Chadha	ICSSR	6,00,000
3	Development and validation of service quality index in Indian Telecom & Banking Sector	Dr. Arun Kumar & Dr. Jyoti	ICSSR	4,00,000
4	Modelling of Employee Performance and Human Capital, Assessment and Optimization of Productivity of Indian Manufacturing Industry	Dr. Udayan Chanda & Dr. Praveen Goyal	ICSSR	5,00,000
5	Drivers of Sustainability Practices of SMEs: An Exploratory Study of Small Manufacturing Firms in Rajasthan	Dr. Neetu Yadav/Dr. Leela Rani	ICSSR	3,00,000

## (ii) Projects Completed

S.No	Project Title	Principal / Co-Principal Investigator	Sponsored Organization	Amount Sanctioned (Rs. In Lacs)
1.	Campus Sustainability in India: Issues and Challenges (A Study of Select Institutions of Higher Education)	Dr. Neetu Yadav	BITS Pilani RIG Grant	2,00,000
2	Empirical investigation of management practices in the Indian manufacturing sector	Dr. Jayashree Mahesh	BITS Pilani RIG Grant	2,00,000
3	Developing and Validating Customer Relationship Management Index for Indian Airline	Dr. Jyoti & Dr. Arun Kumar	ICSSR	1,50,000

## (iii) Projects sanctioned

S. No	Project Title	Principal / Co-Principal Investigator	Sponsored Organization	Amount Sanctioned (Rs. In Lacs)
1.	Drivers of Sustainability Practices of SMEs: An Exploratory Study of Small Manufacturing Firms in Rajasthan	Dr. Neetu Yadav/Dr. Leela Rani	ICSSR	3,00,000
2	Empirical investigation of antecedents of negative word of mouth in social network sites	Dr. Nirankush Dutta	BITS Pilani RIG Grant	2,00,000
3	Measuring the Impact of Socially Responsible Supply Chains and Development of Framework for Implementing Socially Responsible Supply Chains	Dr. Satyendra K. Sharma and Dr. Saurabh Chadha	ICSSR	6,00,000

## B. PUBLICATIONS

## (a) International/National Journals

- Chadha, S. and Dutta, N. 2018. Linking Entrepreneurship, Innovation and Economic Growth: Evidence from GEM Countries. *International Journal of Technoentrepreneurship*, Forthcoming. The journal is published by Inderscience; ranked as ABDC Category C Journal; Indexed in Scopus, ProQuest etc. Print ISSN: 1746-5370, Online ISSN: 1746-5389
- Chanda, Udayan and Kumar, Alok. "Optimization of EOQ Model for New Products under Multi-Stage Adoption Process", *International Journal of Innovation and Technology Management* (Accepted for publication).
- Chanda, Udayan and Goyal, Praveen, "Assessing impact of Human Capital, SRHRM and Employee related factors on Firm Performance Journal of Industrial Integration and Management: Innovation and Entrepreneurship", *Journal of Industrial Integration and Management: Innovation and Entrepreneurship* (Accepted for publication)
- Chanda, Udayan, Kumar, Alok and Das, Jitendra Kumar. "Fuzzy EOQ model of a high technology product under trial-repeat purchase demand criterion", *International Journal of Modelling and Simulation*
- Gaur, J., Venkatesh, M., Banerjee, P., Amini, M., & Gupta, R. Towards building circular economy: A cross-cultural study of consumers' purchases intentions for reconstructed products. Accepted for publication at *Management Decision* (Emerald, ABDC B, SSCI Impact Factor -1.564)
- Jayashree Mahesh, Anil K. Bhat, (2018) "Convergence of management practices in India's IT sector with an a priori validation", *Journal of Asia Business Studies*, Vol. 12 Issue: 4, pp.402-421
- Kumar, Alok and Chanda, Udayan (2018). "Two-Warehouse Inventory Model for Deteriorating Items with Demand influenced by Innovation Criterion in Growing Technology Market", *Journal of Management Analytics* 5:3, 198-212.
- Kumar, V., Mehta, V., Goyal, P. and Kumar, D. (2018), "Enhancing Public Engagement for Green Diwali: An Initiative of Centre for Sustainability, Growth and Development", *International Journal of Social Ecology and Sustainable Development*, (Accepted for publication).
- Priyadarshini, C., Banerjee, P. & Chhetri, P. Identifying Dimensions of Job Search Strategy: A Validation of Measurement Scale. Accepted for publication at *Current Psychology* (Springer, SSCI Impact Factor - 1.280),

10. Sharda, N., Bhat, A. (2018). 'Austerity to materialism and brand consciousness: Luxury consumption in India', *Journal of Fashion Marketing and Management*, 22 (2), pp. 223-239.
11. Sharma S, Chadha S & Dhar, S, (2018) "Measuring the impact of socially responsible supply chains on firm performance" Prabandhan: *Indian Journal of Management*. (National)
12. Sharma Satyendra, Singh Ravinder and Matai Rajesh (2018). "Force Field Analysis of Indian Automotive Strategic Sourcing Risk Management Enablers and Barriers", *Measuring Business Excellence (Emerald)*, Vol. 22, Issue 3, pp. 258-275.
13. Sharma Satyendra, Singh Ravinder and Matai Rajesh (2018). "Incorporating Risks and Costs into Global Sourcing Decisions", *International Journal of Procurement Management (Inderscience)*- Forthcoming.
14. Srikanta Routroy, Satyendra Sharma, Bijoy Rout (2018) "Analysis of manufacturing supply chain agility performance using Taguchi Loss Functions and Design of Experiment", *Benchmarking: An International Journal (Accepted) Emerald - Scopus, ABDC- B*
15. Yadav, N. and Sagar, M. (2018), "Amazon India's 'Apni Dukaan': Branding Strategy", *Emerald Emerging Market Case Studies*, Vol. 8, Issue 2 (Emerald Publications, UK).
16. Yadav, N., Gupta, K., Rani, L., & Rawat, D. (2018). Drivers of Sustainability Practices and SMEs: A Systematic Literature Review. *European Journal of Sustainable Development*, 7(4), 531-544.
17. Yadav, N., Gupta, K., and Khetrpal, V. (2018), "Next Education: Technology Transforming Education", *South Asian Journal of Business and Management Cases*, Vol. 7 Issue 1, pp. 68-77 (Sage Publications; Scopus Indexed).
18. Yadav, N., Gupta, K., and Rani, L. (2018), "Drivers of Sustainability Strategies and SMEs: A Systematic Literature Review", *European Journal of Sustainable Development*, Vol. 7 Issue 4, pp. 531-544.
19. Yadav, N., Sushil, Bititci, U.S. (2018), "Development of Performance Management System incorporating dual perspectives of Enterprise and customers", *Measuring Business Excellence*, Vol. 22 No. 3, pp. 201-219 (Scopus Indexed; ABDC Rating: B).

#### C. CONFERENCES

##### (i) Conference Presentation:

1. Amrata Patwa. & Anil Bhat "Conceptual Domain Overlap between Employee Engagement and Employee Creativity: an Empirical Investigation" accepted for presentation in 2nd Annual Conference of Aston India Centre for Applied Research. Managing and Organizing in the Emerging Indian Context, 31<sup>st</sup> August – 1<sup>st</sup> September 2018 at Aston Business School, Aston University, Birmingham, U.K
2. Arun Kumar Agariya, and Jyoti Tikoria (2018) Sustainable Operations: A Case of Cashless facility across the University, abstract published in proceedings of "The International Conference on Sustainable Management, organized by IIM Kashipur in May 2018.
3. Arunima Rana, Anil Bhat & Leela Rani "Investigating Path to Purchase for Online Impulse Buying: A Decision Net Approach", accepted for presentation at 2018 Winter AMA Academic Conference, Feb 23-25, New Orleans, L.A, USA
4. Banerjee, P., & Bhattacharyya, T. (2018). Perceived Benefit of XMOOCs in Knowledge Enhancement and Impact on Career Development: A Mixed-Method Study. Paper presented at 9<sup>th</sup> IKMAP Conference, 1-2 November 2018, organized by Hong Kong Polytechnic University & Zhejiang University, Hangzhou, China
5. Bhanu Mishra and Jyoti Tikoria (2018) "Effect of ethical leadership on organisational climate and its subsequent influence on commitment: A study of Indian Doctors", PAN IIT International Management Conference 2018 to be held during November 30 – December 02, 2018 at IIT Roorkee, Uttarakhand, India.
6. Chadha S (2018), "Capital Budgeting Techniques: Evidence from Indian Manufacturing Sector", paper presented at NIDA International Business Conference 2018, Bangkok Thailand by NIDA Business School on March 3, 2018
7. Chanda, Udayan, Goyal, Praveen and Sharma, Vaibhav (2018) "A Bayesian network model for Impact of SHRM on Employee Commitment and Performance" *Conference Proceedings of the International Conference on Business, Economics and Sustainable Development (ICBESD 2018)* on February 22-23, 2018 at TERI School of Advanced Studies
8. Dutta, N., & Bhat, A. 2018. "A Study of the Anomalous Relation Between Pro-Environment Knowledge, Attitude and Behaviour" in the Inaugural Nordic-India Business Research Conference organized by Stockholm Business School at Stockholm, Sweden from Aug 25, 2018 to Aug 26, 2018



9. Dutta, N., & Bhat, A. 2018. "Source-Based Trust in Online Social Media Marketing" in the 20th Australia and New Zealand Marketing Academy Conference (ANZMAC) 2018 organized by Australia and New Zealand Marketing Academy and University of Adelaide at Adelaide, Australia from Dec 3, 2018 to Dec 5, 2018
10. Dutta, N., & Bhat, A. 2018. "Examining the Effect of Store Characteristics, Attitude and Gender on Trust in Online Social Media Marketing" in the Sixth PAN IIM World Management Conference (WIMC 2018) organized by all 13 Indian Institutes of Management (IIMs) together at IIM Bangalore Campus from Dec 13, 2016 to Dec 15, 2018
11. Mahesh Jayashree. & Bhat, Anil "*Culture specific Indian management practices or Universal management practices: A peep into the black box of Indian IT Companies*" presented at the Academy of International Business (AIB)-INDIA Chapter Conference held at Shimla on 9th - 11th April 2018.
12. Mahesh.J. & Anil Bhat 'Educating Generation Z – An Ethnographic Insight for Managing and Organizing Higher Education Institutions in Indian Context'. 'Accepted for presentation in 2nd Annual Conference of Aston India Centre for Applied Research. Managing and Organizing in the Emerging Indian Context, 31<sup>st</sup> August – 1<sup>st</sup> September 2018 at Aston Business School, Aston University, Birmingham, U.K (Best Innovative Research Paper Award)
13. Nikita Sharda and Anil Bhat "The Role of Social Comparison and Consumer's Need for Uniqueness in Explaining the Purchase Intention Towards Luxury Brands" accepted for presentation at the Summer AMA Conference in Boston, M A, USA on August 10-12, 2018.
14. Nirankush Dutta and Anil Bhat. "A Study of the Anomalous Relation Between Pro-Environment Knowledge, Attitude and Behaviour" Accepted for presentation at Nordic-India Business Conference hosted by Stockholm Business School, Stockholm, Sweden on 25-26 October 2018
15. Preeti Tewari, Anil Bhat & Jyoti "*Identifying the role of antecedents on Social Entrepreneurial Intentions Formation*" has been accepted for presentation in a refereed session at the 2018 SEE Conference, in Washington, DC, on March 2-4, 2018
16. Rana, A., Bhat A. K. & Rani, L., "Investigating Path to Purchase for Online Impulse Buying: A Decision Net Approach" presented at 2018 AMA Winter Academic Conference organized by The American Marketing Association (held in February 2018).
17. Rana, Arunima, Bhat Anil and Rani, Leela "*The Cognitive Structure of Online Brand Choice: An Exploratory Study*" presented at 21st Academy of Marketing Science World Marketing Congress (AMS WMC). Porto, Portugal, on 27 - 29 June, 2018
18. Saha, V. and Goyal, P. (2018), "Journey of Social Marketing in the last two decades: A Bibliometric Analysis, presented at First PAN IIT International Management Conference 2018, organized by IIT Roorkee on Nov 30 – Dec 2, 2018
19. Seth H and Chadha S (2018), "Adjucating the Working Capital Management Efficiency through Liquidity Model" paper presented at First PAN IIT International Management Conference 2018, organized by IIT Roorkee on Nov 30 – Dec 2, 2018.
20. Sharma S. K, "Transportation risks in perishable goods" Presented at NIDA Business school, Bangkok 3-4 March 2018
21. Yadav, N. (2018) "IKEA Inc.: The India Way", Case Idea presented at 60th Annual Conference of North America Case Research Association held at Florida, USA, Oct. 04-06.
22. Yadav, N., Gupta, K., and Rani, L. (2018), "Drivers of Sustainability Strategies and SMEs: A Systematic Literature Review", presented at 6th International Conference on Sustainable Development, Organized by European Center of Sustainable Development, Rome, Sep. 12-13, 2018.
23. Yadav, N., Gupta, K., and Rani, L. Approach to Using Social Learning for Fostering Sustainability: Review of Literature with Children's Context as a Case: presented at 6th International Conference on Sustainable Development, Organized by European Center of Sustainable Development, Rome, Sep. 12-13, 2018.

#### Conference Proceedings

1. Bhat, A. and Mahesh, J. (2018). Understanding the Gap in the 'Umwelts' of Higher Education: The Perceptual Antecedents of Faculty and Student Satisfaction. *In: British Academy of Management (BAM) 2018*. [online] Available at: [http://conference.bam.ac.uk/BAM2018/htdocs/conference\\_papers.php?track\\_name=Knowledge%20and%20Learning#Developmental%20Papers](http://conference.bam.ac.uk/BAM2018/htdocs/conference_papers.php?track_name=Knowledge%20and%20Learning#Developmental%20Papers) [Accessed 11 Sep. 2018].
2. Maheshwari, H., Saha, V., Goyal, P. and Kumar V. (2018), "Understanding the impact of social media on the process of value co-creation" Third International Conference on Facets of Business Excellence –

Think out of Box: Digital Technology for Strategic Advantage (FOBE-2018), organized by IMT Ghaziabad from 22nd to 26th Nov'18

3. Shishodia, M. Saha, V., Goyal, P. and Kumar V. (2018), "Assessing online reviews: A text analysis approach", Third International Conference on Facets of Business Excellence – Think out of Box: Digital Technology for Strategic Advantage (FOBE-2018), organized by IMT Ghaziabad from 22nd to 26th Nov'18

#### D. CONFERENCES/WORKSHOPS ATTENDED BY FACULTY

1. Dr. Saurabh Chadha attended "Workshop on Digital Learning" Organized by WILPD, BITS Pilani, Pilani Campus, Date: 29th March – 30th March 2018.
2. Dr. Saurabh Chadha "National Workshop on Improving Synergy between Teaching and Research in Indian Academia", organized by Teaching Learning Center, BITS Pilani, Pilani Campus, 26th March – 27th March 2018.

#### E. Book Chapters Published

- Tiwari P., Bhat A.K., Tikoria J. (2018) Factors Affecting Individual's Intention to Become a Social Entrepreneur. In: Agrawal A., Kumar P. (eds) Social Entrepreneurship and Sustainable Business Models; pp 59-98; Palgrave Macmillan, Cham. (DOI [https://doi.org/10.1007/978-3-319-74488-9\\_3](https://doi.org/10.1007/978-3-319-74488-9_3)); Print ISBN 978-3-319-74487-2; Online ISBN 978-3-319-74488-9.

#### F. CONFERENCES/WORKSHOPS ORGANIZED BY THE DEPARTMENT

Prof. K. S. Sangwan (Department of Mechanical Engineering) and Dr. Jyoti (Department of Management) organized "Indo-German Workshop on Sustainable Manufacturing and Entrepreneurship", held on 17th - 18th September 2018.

#### G. INVITED TALKS GIVEN BY THE FACULTY:

1. Dr. Pratyush Banarjee was Invited as Guest speaker to deliver a master class on "Predictive Analytics for L&D Professionals" at the 2018 People Matters L&D Conference at Grand Hyatt Mumbai, October 23, 2018
2. Dr. Jayashree Mahesh, conducted a Workshop titled "Express to Impress" for around 210 undergraduate students of Justice Basheer Ahmed Sayeed College for women (Affiliated to the University of Madras), Chennai on December 19, 2018.
3. Prof. Jyoti conducted a workshop on "Startups and Business Model Innovation", during "Indo-German Workshop on Sustainable Manufacturing and Entrepreneurship", held on 17th - 18th September 2018 at BITS Pilani - Pilani Campus.
4. Prof. Jyoti delivered sessions on "Customer care and service with a smile" and "Importance of teamwork" in *Effective Communication and Customer Care* workshop organized by BITS Pilani Library on 30<sup>th</sup> October, 2018.
5. Prof. Jyoti Conducted a Workshop on 15th November 2018 on "Socio Techno Entrepreneurship" for School Children during Regional Science Congress for School Children (Jawahar Navodaya Vidyalaya).

#### H. INVITED TALKS ARRANGED BY THE DEPARTMENT

S.No.	Resource Person	Designation	Topic	Dates
1	Paurav Shukla	Professor, Southampton Business School	Luxury Marketing	10-Feb-18
2	Mr. Gaurang Mehta	Executive Director, Axis Capital Ltd	Work life balance and the industry	23 <sup>rd</sup> March 2018
3	Mr. Vineet Sehgal	Senior Director, Human capital, PWC	Work place and work force of future	24th March 2018
4	Mr. Saurabh Nigam	Key account manager, Ericsson India	Artificial Intelligence and analytics	25 <sup>th</sup> March 2018
5	Prof Bhaskar Bose	Management Consultant	Thinking and Creativity	24 <sup>th</sup> March 2018
6	Mr. K.V. Rao	Co-Founder, Epicenter technologies Ltd, President of AIPC	Challenges faced in initial phase of startups	24 <sup>th</sup> March 2018

S.No.	Resource Person	Designation	Topic	Dates
7	Prasad Padmanabhan	Professor, St. Mary's University	Finance	4 Aug 2018 - 5 Aug 2018
8	Rajiv Gupta	Professor, WILP BITS Pilani	Deming and Quality	10 <sup>th</sup> August 2018
9	Prof. Sharad Sarin	Professor of Marketing and Strategic Management, XLRI	Career in Management	15 <sup>th</sup> Oct 2018
10	Suresh Kabra	Founder, Pricemap	Go to Market Strategy for start ups	22-Oct-18
11	Sanjay Kaul	Ex- Country Head, Apple India and CEO of Sofyx	Journey and Imperative for Leading in Organizations	24th Oct 2018
12	Satyen Sharma	Head, Accounts & Finance, BITS Pilani, Pilani Campus	Financial Accounting	25th Oct 2018
13	Dr. Kiranmai Pendyala	Corporate Vice President - HR & Member, Board of Directors, AMD India	Organization culture in the age of technology and cross cultural teams	12 <sup>th</sup> Nov 2018
14	Krishnamurthy Bindumadhavan	Associate Professor, WILP, BITS Pilani	Financial Accounting & Corporate Finance	13 Nov - 14 Nov 2018
15	Varindra Sewak	Director, BLS International Services	Marketing	21-Nov-18
16	Sunil Rangreji	Sr. Director (IT), Informatics	Design Thinking and Blue Ocean Strategy	23 Nov 2018 & 26 Nov 2018
17	Pawan Budhwar	Professor, Aston Business School & Joint Director, Aston India Centre for Applied Research	Collaborative Opportunities with Aston University	27-Dec-18

#### I. Workshops

S.No	Resource Person	Designation	Topic	Department	Dates
1	Havish Madhvapaty	Co-Founder, Decode Research and Analytics	Microsoft Excel	Management	26 Feb 2018 - 28 Feb 2018
2	K.T. Upadhyay	Managing Partner, ELearn India Consulting & Training LLP	Project Management	Management	10 Sep 2018 - 14 Sep 2018
3	Shikha Sahai	HR Consultant & Research Scholar, XLRI	Human Resource Management	Management	18 Sep 2018 - 22 Sep 2018
4	Kidambi Srinivasan	Trainer, Benchmark Six Sigma, Delhi	Six Sigma Training	Management	30th August 2018-3rd September 2018
5	Abhisek Salecha	Co-Founder Forevision	Advanced Excel and Financial Modelling	Management	21 <sup>st</sup> Sept - 23rd Sep 2018

#### J. FACULTY AND STUDENT ACHIEVEMENT

##### (i) Faculty Achievement/Awards

- i. Jayashree Mahesh and Anil K Bhat, received the Best Paper Award for Innovative Research for a paper titled 'Educating Generation Z- An Ethnographic Insight for Managing and Organizing Higher Education Institutions in the Indian Context', presented at the Second Conference of Aston India Centre for Applied Research (AICAR), Aston University, Birmingham, UK during August 31 – September 1, 2018.
- ii. Dr Neetu Yadav, Assistant Professor, Department of Management has been awarded Paul R. Lawrence fellowship for participating in 2018 annual meeting of the North American Case Research Association that was held in Florida, USA during Oct 04-06, 2018. She was one of a group of ten Paul R. Lawrence Fellowship recipients who have been offered this fellowship around the world.

## (ii) Student Achievement

1. Sandeep Dutta participated and was one of the finalist in E-Summit 2018 organized by FMS Delhi 17th Feb. ,2018
2. Sandeep Dutta Runner up, in Business Plan Competition organized by IIM Ahmedabad, 2nd-6th April 2018
3. Sanya Khanna, winner of Interview Question of the year 2017, organized by Pinterview, 13- 25 January 2018
4. Akreti Tiwari secured Second Position, Go On-site Interface, organized by BITS Pilani, 24th March 2018
5. Akreti Tiwari, winner Solo Blast Dance organized by BITS Pilani, April 2018
6. Bhuwan Sangwan won silver in swimming competition in BOSOM, 2018, organized by BITS Pilani
7. Bhomendra Singh Rathore won silver in Snooker in BOSOM, 2018, organized by BITS Pilani
8. Rajat Sharma won silver in Badminton in BOSOM, 2018, organized by BITS Pilani
9. Md. Fuaad Khan won Gold in Carrom in BOSOM, 2018, organized by BITS Pilani
10. Ms. Dipti Chandra, Ms. Varsha Gupta and Ms. Sree Ranjani participated annual festival Agnitraya 5.0 organized by IIM Kashipur
11. Shubham Jain and Bhuwan Sangwan won the best "Startup and Business Model Innovation Competition" in 6<sup>th</sup> INDO German Workshop on "Sustainable Manufacturing and Entrepreneurship" organized by BITS Pilani and Technische Universitat Braunschweig, Germany.

(i) FACULTY DEVELOPMENT, IN TERNATIONAL COLLABORATION AND INDUSTRY IMMERSION - NIL

(ii) SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR -

Following software were purchased: NVivo 12 Plus -Student License, Harvard Business Publishing Standard Site License Subscription for one year

## K. DEPARTMENTAL ASSOCIATION/CLUB ACTIVITIES

(i) All India Management Convention, Interface 2018

Interface- the 41-year old Pan-India management fiesta was organized by Department of Management from March 23 to 25, 2018 with the theme '*Into the Future*'. The opening ceremony witnessed motivating talks from the guests including Prof. A K Sarkar (Director, BITS-Pilani, Pilani Campus), Mr. Gaurang Mehta (Executive Director of Axis Capital Ltd), and Mr. Vineet Sehgal (Senior Director, Human capital, PWC). There were registrations from more than 600 participants from the best B-schools across India with close to 160 of them being invited to be a part of on-campus events. Also, the fest witnessed a lively and fun-filled evening of the comedy prof show, LOL'D, with Urooj Ashfaq, Sapan Verma and Kunal Rao. The other distinguished speakers were Mr Saurabh Nigam (Key Accounting Manager, Ericsson India), and Mr. K.V. Rao (Co-founder, Epicenter technologies Ltd.).

(ii) Faculty activities

The group discussion and personal interviews for the candidates were conducted by the faculty teams of Management Department at Delhi, Hyderabad, Bangalore and Pilani. The department organized several workshops in emerging areas related to different functional areas of management. Several projects in various functional areas of management were supervised by the Department faculty members under special oriented projects, study oriented projects, and computer oriented projects, reading courses and first degree thesis. Regular faculty and research scholar seminars were conducted in the department. The Department faculty members continued to teach many courses in WILP Programs of the institute including contact sessions of M Phil. (HHSM). Faculty and research scholars published papers in international journals, national journals and in conference proceedings. Many faculty members have submitted proposals for projects to funding organizations and 3 new research projects have taken off under 5 faculty members.

iii) Student activities

Management association organized year-long activities through its clubs structured along four important functional areas of management viz. Marketing, Human Resource Management, Finance and Operations Management along with Interface 2018. Workshops were organized where students participated for learning and/or certifications.

## B1.10.12 Department: Pharmacy

Number of faculty members (as on 31 December 2018)

Senior Professors, Professors	03
Associate Professors	03
Assistant Professors	12
Lecturers	0

Head of the Department: Dr. Atish T. Paul

Contact details: atish.paul@pilani.bits-pilani.ac.in

Number of PhD Scholars: 28

Number of PhD Scholars being supported through Projects and External Funding: 20

Ph.D. Thesis Submitted during the year: 02

## A. SPONSORED RESEARCH ACTIVITIES &amp; FUNDING

(i) Ongoing projects:

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
1.	Development of novel anti-leishmanial analogues loaded with novel nano-formulations	Prof. S. Murugesan (PI) Prof. K.V.G. Chandrasekhar (Co-PI)	DBT	47
2.	Exploring the synergism of PPAR-Y agonist and HDAC inhibitor for reversal of Alzheimer's type of dementia and developing their brain targeted nano-carrier system for effective treatment"	Prof. Rajeev Taliyan (PI) Dr. Deepak Chitkara (Co-I)	DST-Nano-Mission	32.13
3.	In Vitro – In Vivo Study Design: Cardio-reno protective Effect of Herbal Extract in Hypertensive Rats: Role of NO/cGMP pathway	Prof. Rajeev Taliyan Dr. Sunil K Dubey	Etica Clinpharm Pvt. Ltd	9.91
4.	To study the role of hyperglycemia on the progression of acute kidney injury.	Prof. Gaikwad Anil Bhanudas	DST-SERB	47.18
5.	Development of nanoemulsion based formulations of bioactives	Dr. Anil Jindal	Ananta Medicare	5.10
6.	Development and evaluation of lipid based nanoparticles of Quinapyramine and Isometamidium chloride for treatment of trypanosomiasis in camels	Dr. Anil Jindal (PI) Dr. Atish Paul (Co-PI)	DBT	29.00
7.	cRGD decorated lipo-polymeric nanoplexes of CRISPR/Cas9 ribonucleoprotein (RNP) for the management of retinal dystrophic conditions	Dr. Deepak Chitkara (PI) Dr. Anupama Mittal (Co-I)	DBT-Nano-intervention in Management of Ophthalmic Diseases	50.046
8.	Nanotechnology based pharmaceuticals, nutraceuticals and cosmetics: development of platform technology.	Dr. Deepak Chitkara	Incisive Element LLC, USA	21.37
9.	Actively targeted nano-formulations for co-delivery of a taxane and antioxidant molecule, alpha lipoic acid, for treating breast cancer.	Dr. Deepak Chitkara	DST-Rajasthan	11.136
10.	Peptide-decorated pH-sensitive nano-conjugate hybrid micelles for co-delivery of temozolamide and an autophagy inducer, rapamycin, for treatment of glioblastoma multiforme.	Dr. Deepak Chitkara (PI) Prof. Anil Gaikwad (Co-PI)	DBT-Nanobiotechnology	41.946

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
11.	Umbilical Cord Mesenchymal Stem Cells Derived Exosomes as Biogenic Nanocarriers of miRNA and Chemotherapeutic Drug for Reversal of Chemoresistance in Breast Cancer	Dr. Anupama Mittal	DST Nanomission	40.57
12.	Cyclic RGD modified lipopolymeric micelles for targeted delivery of Tamoxifen in ER+ breast cancer	Dr. Anupama Mittal	DST-Rajasthan	12.53
13.	Development of a Standardized Formulation of <i>Trigonella foenum-graecum</i> Seeds for Preventing or Delaying the Development of Type-2 Diabetes in Subjects with Pre-Diabetes	Dr. Sunil K Dubey (PI) Prof. Rajeev Taliyan (Co-PI)	ICMR	23.00
14.	Development and Preclinical Evaluation of Nanostructured Lipid Particles for Targeting Brain Cancer	Dr. Sunil K Dubey Dr. Gautam Singhvi	Oniosome Healthcare Private limited	12.75
15.	Role of Endocrine Disrupting Chemicals (EDCs) in Maternal and Child Health	Dr. Sunil K Dubey (BITS PI) Prof. Rajeev Taliyan (Co-PI)	ICMR	27.36
16.	Design of Healthcare Supply Chain for Enhancing Availability and Reducing Wastage of Generic Medicines for Rural Areas in Rajasthan	Prof. Srikanta Routroy (PI) Dr. Sunil K Dubey (Co-PI)	DST Rajasthan	5.88
17.	Evaluation of antitumor efficacy and pharmacokinetics of polymeric nanoparticle formulation targeted to cancer stem cells	Dr. Aniruddha Roy	DST-SERB	33.86
18.	Quality by design based suspension product development and process optimization	Dr. Gautam Singhvi Dr. Sunil K Dubey	Slayback Pharma, India	11
19.	Insight into dissolution mechanism of amorphous solid dispersions of macitentan	Dr. Murali M. Pandey	DBT	8.00
20.	Design and Synthesis of Mycobacterium UDG inhibitors	Dr. Sandeep Sundriyal	The office of Principal Scientific Advisor (GOI)	3.00
21.	To decipher the involvement of COX-2 in regulating oxidative stress-induced autophagy in breast cancer.	Dr. Richa Shrivastava	BITS-Pilani (RIG)	2.00
22.	Development of Site of Metabolism (SOM) prediction model for sulfotransferase (SULT) catalyzed drug metabolism	Dr. Vaibhav A. Dixit	BITS Pilani (RIG)	2.00
23.	"Computer-aided design and synthesis of non-hydroxamate lipophilic DXR inhibitors as antimicrobial/antiparasitic agents"	Dr. Sandeep Sundriyal	BITS-Pilani (RIG)	2.00

#### Brief Write Up of Projects

*Development of novel anti-leishmanial analogues loaded with novel nano-formulations*

It involve the following phases:

*Phase 1:* Design of hybrid analogues using molecular hybridization approach. In-silico molecular properties and toxicity profile of the designed analogs will be predicted using appropriate molecular modeling tools. Molecules having better toxicity profile will be selected from all the designed analogs for further study.

*Phase 2:* Synthesis of the designed analogues will be carried out by appropriate synthetic route to get pure and better yield products. All the synthesized analogues will be characterized by FT-IR, <sup>1</sup>H NMR, <sup>13</sup>C NMR, Mass spectral and Elemental analysis.

*Phase 3:* Synthesized novel  $\beta$ -carboline derivatives and chalcone hybrids will be screened for their anti-leishmanial activity and cytotoxicity.

*Phase 4:* Structure and Activity Relationship (SAR) studies will be done to identify important substituents to get anti-leishmanial potency. Attempts will be made to identify lead molecules based on SAR studies. Finally the lead will be optimized to obtain a suitable drug candidate with maximum therapeutic efficacy and minimum toxic effects. Finally, attempts to find out the molecular mechanism of the optimized lead will also be carried out.

*Exploring the synergism of PPAR  $\gamma$  agonist and HDAC inhibitor for reversal of Alzheimer's type of dementia and developing their brain targeted nano-carrier system for effective treatment*

Recently, insulin resistance syndrome has been reported to play crucial role in the pathogenesis of memory deficit and AD. However, the molecular and cellular basis that link insulin resistance with neurodegeneration is yet to be explored. Probable links between insulin resistance and neurodegeneration will give an insight into the mechanistic approaches to a quick acting neuroprotective therapeutic regimen in co-morbid condition. Evidences have indicated that PPAR $\gamma$  agonists and HDAC inhibitors could play a crucial role in memory deficit and AD, however, their combination have not been yet tested due to the challenges involved in their effective delivery such as low water solubility, poor penetration into the brain and associated toxicity. Thus, the current project aims at establishing the synergism in these two therapeutic modalities and assess their delivery to the brain using brain targeted peptide conjugated nano-carrier system that would possibly be taken up for clinical trials after appropriate investigations.

*In Vitro –In Vivo -Study Design: Cardio-reno protective Effect of Herbal Extract in Hypertensive Rats: Role of NO/cGMP pathway*

Hypertension is a major risk factor for both cardiovascular and chronic kidney disease (CKD) morbidity and mortality. The presence of hypertension doubles the risk for coronary heart disease, including acute myocardial infarction and sudden death, and more than triples the risk of congestive heart failure as well as strokes. Hypertensive patients frequently have abnormalities on cardiac function and structure such as left ventricular hypertrophy and systolic as well as diastolic dysfunction.<sup>7</sup> In India according to the estimates from 2006 the frequency of renal disease is 229 per million population and it is increasing more than 1 lakh cases per year.

The conventional allopathic antihypertensive drugs are associated with certain side effects. Diuretics can cause dizziness, muscle cramps, extreme tiredness, blurred vision, dehydration, skin rash, abnormal heart rate. ACE inhibitors may cause skin rash, cough, kidney failure, vomiting, fever, diarrhoea, sore throat, and others. Side effects with the use of calcium channel blockers include headache, fatigue, constipation, diarrhoea, edema and skin rash. Because of these serious side effects about 75 to 80% of the total world population use herbal medicines, especially in developing countries. In the last few decades, people are focusing mainly on to herbal drugs and its extracts for the relief from lifestyle diseases as it won't cause any side effects like drowsiness, tiredness, weakness, insomnia, depression, skin rash, dry mouth, head ache constipation and diarrhoea etc.

*To study the role of hyperglycemia on the progression of acute kidney injury*

In clinical practice, acute kidney injury (AKI) is allied with high morbidity and mortality; in addition, diabetic individuals are more susceptible to AKI. Augmentation of renin-angiotensin system (RAS) has shown to be involved in the pathogenesis of AKI associated with diabetes. Hence, RAS blockers are one of the preferred treatments of AKI, but it's unable to control morbidity and mortality due to AKI. Interestingly, ACE2 activators and AT2R agonists have been reported to cause vasodilatation, and decreased hypertrophy, inflammation and fibrosis, thereby have cardiac and renal protective role in diabetic animals. On the other hand, ACE2 and AT2R regulation, and effects of their activators or agonists yet to be explore in AKI under type 1 diabetic condition. Therefore, the aim of this study is to understand the different molecular mechanisms responsible for development of AKI under normal and hyperglycemic condition.

*Development of nanoemulsion based formulations of bioactives*

While it might be easy for a formulator to develop a pharmaceutical forms (tablets, powders, capsules, suppositories, etc.) containing food bioactives, it is quiet challenging to obtain a satisfactory bioavailability for such nutraceuticals. The bioavailability is often jeopardized by the low solubility, stability and/or permeability of the bioactive in the GIT. In case of curcumin, extremely low serum levels, limited tissue distribution, apparent rapid metabolism and short circulation half-life are the underlying causes of its low oral bioavailability. On the other hand, the bioavailability of the lipophilic antioxidant coenzyme Q10 was challenged by its low aqueous solubility and slow dissolution rate in GI fluids furnished by its highly lipophilic character (log P=21). Moreover, permeability is limited by its large molecular weight (863), P-glycoprotein efflux and active transport by a number of transporters (including peptide transporters (PEPT1), cation/carnitine transporters (OCT1, OCTN1, OCTN2 and OCT3) and organic anion transporters (AE2 and MCT1). The project involves the development of nanoemulsion based formulations of nutraceuticals.

*Development and evaluation of lipid based nanoparticles of Quinapyramine and Isometamidium chloride for treatment of trypanosomiasis in camels*

Trypanosomiasis caused by *Trypanosoma evansi*, is the most pathogenic parasitic disease of camelids, causing high morbidity and mortality. Two major trypanocidal drugs; Quinapyramine salts (dimethosulfate and chloride) and Isometamidium chloride are used for treatment of trypanosomiasis in camel. Poor efficacy, high toxicity and resistance are the major limitation of the current therapy. Development of nano-formulation could be a promising strategy to improve the efficacy of these two drugs for control of trypanosomiasis in camels. Thus the present project focuses on the development and evaluation of solid lipid nanoparticles of quinapyramine (dimethosulfate and chloride) and isometamidium chloride. The project will involve in vitro cell uptake studies, pharmacokinetic and biodistribution of the developed solid lipid nanoparticles. The efficacy of the developed solid lipid nanoparticles will also be assessed preclinically in mice model and clinically in *T. evansi* infected camel.

*cRGD decorated lipo -polymeric nanoplexes of CRISPR/Cas9 ribonucleoprotein (RNP) for the management of retinal dystrophic conditions*

CRISPR/Cas9 genome editing had provided a useful tool for targeting both genetic (Leber Congenital Amaurosis (LCA)) and non-genetic eye disorders (wet Age related macular Degeneration (wAMD)). However, use of viral vectors for delivering the cas9 expressing plasmids limit their clinical translation due to safety concerns. A better strategy is to deliver Cas9 ribonucleoproteins (RNPs) consisting of sgRNA and Cas9 protein. Although Cas9 nuclease is cationic however, its complex with the sgRNA yield high negative charge on the RNPs thus enabling their complexation with cationic lipids. Nevertheless, large size of RNP limits their payload for in vivo delivery. Thus we have designed cRGD decorated amphiphilic polymers with functional ligands to package RNPs and control their extra and intracellular trafficking. In the current proposal we aim at delivering RNPs targeting mutated RPE65 gene in LCA and targeting VEGF A gene in wAMD using the developed non-viral nanoplexes.

*Nanotechnology based pharmaceuticals, nutraceuticals and cosmetics: development of platform technology*

Nano-carriers have provided a means to deliver potent but "difficult to deliver" drugs. Reports have demonstrated its applicability in improving the therapeutic benefit of several drugs. A prerequisite for the making nano-carriers commercially viable is the availability of a scalable production method. The project aims at development of novel platform technology for delivering the difficult to deliver molecules for several disease as well as nutraceutical and for cosmetic applications. A nano-carrier system will be designed that could efficiently encapsulate the molecules.

*Actively targeted nano -formulations for co -delivery of a taxane and antioxidant molecule, alpha lipoic acid, for treating breast cancer.*

Many diagnosed breast cancers in India are HER2+ and ER-/PR-, or HER2-/ER-/PR- triple negative (TNBC) resulted in poor prognosis. Therapeutic regimen employed in such cases consist of chemotherapeutic agents including taxanes (paclitaxel, docetaxel), anthracyclines, 5-fluorouracil and cyclophosphamide. However, more than 50% of these patients develop chemo-resistance, aggressive behavior and metastasis leading to early relapse and shorter survival. Experimental evidence suggests on potential of combining small molecule drugs such as taxanes with antioxidants to obtain synergism. It has been shown that alpha lipoic acid improves the efficacy of paclitaxel in various cancers. In spite of the dominant role played by taxane-ALA combination, their in vivo delivery has not been realized owing to their low water solubility and instability of ALA in biological milieu. Keeping above facts in the view, present study is aimed to design, develop and evaluate a nano-formulations co-loaded with DTX and ALA for treatment of locally advanced and metastatic breast cancer.

*Peptide -decorated pH -sensitive nano -conjugate hybrid micelles for co -delivery of temozolamide and an autophagy inducer, rapamycin, for treatment of glioblastoma multiforme*

Glioblastoma multiforme (GBM) is a highly aggressive and most common astrocytic tumor. In spite of advancements in treatment strategies, its prognosis is very poor due to heterogeneous cytogenetic nature, diffuse infiltrative growth and blood-brain barrier (BBB). Temozolamide (TMZ) is the first line of treatment for GBM however, it suffers from rapid hydrolysis, short half-life, dose-limiting toxicities and chemo-resistance. mTOR is highly upregulated in GBM and is associated with rate of cell growth, stem cell proliferation and disease relapse. Rapamycin, a strong inducer of autophagy, have shown promising results in overcoming the chemoresistance by targeting mTOR and cancer stem cells in GBM. In this project, TMZ and rapamycin will be delivered using a novel nano-carrier system.

*Umbilical cord mesenchymal stem cells derived exosomes as biogenic nanocarriers of miRNA and chemotherapeutic drug for reversal of chemoresistance in breast cancer*

The project aims at investigating the naturally occurring nanovesicles called as exosomes as drug delivery vehicles to carry a chemotherapeutic drug to the tumor tissues. The exosomes are proposed to be isolated from the non-transfected and tumor-suppressor miRNA transfected human umbilical cord blood derived



mesenchymal stem cells (hUCBMSCs). Use of hUCBMSCs derived exosomes would provide dual advantages of both cell-based drug delivery and nanotechnology for efficient drug transport capable of overcoming various biological barriers. It would also resolve two major issues, a) the inefficacy of presently used drug delivery systems owing to their synthetic/foreign body nature resulting in immunogenicity, rapid clearance from the blood and rejection by the host and, b) to exploit the advantage of stem cell based therapy in tumor treatment without confronting the problems of immunogenicity, tumorigenesis and maldifferentiation inherently associated with stem cells.

*Cyclic RGD modified lipopolymeric micelles for targeted delivery of Tamoxifen in ER+ breast cancer*

Tamoxifen represents a first-line anti-estrogen therapy for treatment of estrogen receptor positive (ER+) breast cancers. Although a potent molecule, it exhibits poor bioavailability and hepatotoxicity. To improve its therapeutic benefit and overcome the associated toxicity, the current project aims at designing a unique multifunctional self-assembling nano-carrier system for Tamoxifen. Lipo-polymer containing polycarbonate based hydrophobic core and cholesterol based lipid chains will be synthesized such that upon self-assembly it would yield nano-sized micelles. The micelles will be functionalized with cRGD to enable active targeting to  $\alpha\beta3/5$  integrin receptors which are over expressed in the breast tumor tissue. This actively targeted nano-formulation of Tamoxifen will enable high drug payload, enhanced permeation and retention (EPR) effect, enhanced cellular uptake due to presence of cholesterol and prolonged mean residence time of the drug in the body. Overall the approach will decrease the dose of Tamoxifen along with decreasing the adverse effects, increasing the therapeutic efficacy and hence providing clinical benefit to breast cancer patients.

*Evaluation of Standardized Formulation of Trigonella foenum-graecum in Controlling the Blood Sugar of Normal and Diabetic Animals*

Preclinical studies have demonstrated Trigonella foenum-graecum seeds to lower the blood glucose as well as cholesterol levels of diabetic animals. The antidiabetic potential of the seeds has been attributed to the presence of saponins, 4-hydroxyisoleucine, and trigonelline. Therefore, the present study is planned to evaluate the pharmacological interventions with standardized Trigonella foenum-graecum seeds product extract (Lot-4) in prevention and delaying the development of diabetes mellitus in pre-diabetes subjects. Bio-analytical methods have been developed and validated for all the biomarker compounds i.e., trigonelline, 4-hydroxy isoleucine and diosgenin individually which are present in the extract. Moreover, pharmacodynamic study will be conducted in suitable diabetic animal models.

*Development and Preclinical Evaluation of Nanostructured Lipid Particles for Targeting Brain Cancer*

The aim of the project is to design and characterize nanostructured lipid particles for the brain targeting of the selected drug and to explore its pharmacokinetic and pharmacodynamic parameters.

*Role of Endocrine Disrupting Chemicals (EDCs) in Maternal and Child Health*

The objective of this project is to explore the role of endocrine disrupting chemicals (EDCs) in adverse health outcome during pregnancy and to examine relationship between EDCs and incidence of metabolic derangements during pregnancy. To develop a well standardized sensitive method for measurement of endocrine disrupting chemicals (EDCs) in biological samples from human body

*Design of Healthcare Supply Chain for Enhancing Availability and Reducing Wastage of Generic Medicines for Rural Areas in Rajasthan*

The project is aimed to design an efficient healthcare supply chain for selected generic drugs in rural and tribal India. The most appropriate methods of improving performance at various links of healthcare supply chain for optimizing the chain under the existing constraints and development of implementation and performance evaluation manual for proposed healthcare supply chain.

*Evaluation of antitumor efficacy and pharmacokinetics of polymeric nanoparticle formulation targeted to cancer stem cells*

Current anticancer therapeutic strategies frequently leads to treatment failure. Inability to kill cancer stem cells (CSC) is a major contributing factor for that. In the proposed project, we are planning to develop a tumor targeted, triggered release nanoparticle based system to co-deliver an anti-CSC agent and a chemotherapeutic drug for possible synergistic effect and better therapeutic efficacy.

*Quality by design based suspension product development and process optimization*

The objective of this project is to design and characterization of injectable suspension product development and process optimization using quality by design approach. Various formulation composition and process parameters will be optimized with QbD approach. In-vitro, ex-vivo and in-vivo investigations will be carried out for optimized stable formulations.

*Insight into dissolution mechanism of amorphous solid dispersions of macitentan*

The research work is aimed at solubility enhancement of macitentan, a poorly soluble drug. In this research work, we are interested to prepare suitable amorphous solid dispersions (ASDs) of macitentan in which the conversion of amorphous form into crystalline form would be restricted to the desired extent. In order to achieve this, we are interested to explore the effects of formation mechanism of amorphous dispersion systems in the reduction of re-crystallization of drug during dissolution. Drug-polymer interactions would be comprehensively investigated using fourier transformation-infrared and nuclear magnetic resonance spectroscopy. The effect of formation mechanism on the water uptake behaviour of ASDs will also be studied.

*Design and Synthesis of Mycobacterium UDG inhibitors*

Mycobacterium causes tuberculosis (TB) in humans resulting in tremendous economical burden on healthcare services. Currently used anti-TB drugs possess several side effects and are becoming ineffective due to the emergence of multi-drug strains of Mycobacterium. MT-UDG plays important role in Mycobacterium in DNA repair mechanism and has been widely studied in terms of structure and function. Studies suggest that MT-UDG can serve as a useful target for drug discovery. This project aims at the structure and ligand-based design of novel MT-UDG inhibitors. The designed molecules would be synthesized and screened in vitro and cell based assays for anti-mycobacterial activity.

*To decipher the involvement of COX-2 in regulating oxidative stress-induced autophagy in breast cancer*

Reactive oxygen species (ROS) levels have been found to be upregulated in all cancers. Oxidative stress and inflammatory mediators have been associated to the carcinogenesis. ROS such as superoxide anion favors the development of inflammatory conditions within tumor microenvironment. Relationship between COX-2 and ROS has been established in vasculature of kidneys. In addition to this, oxidative stress is implicated in increasing the levels of prostaglandins (a product of COX-2) and inflammatory cytokines. Autophagy is a process which degrades proteins as well as organelles in a cell. Role of autophagy has remained complex and controversial in tumorigenesis because it favors tumor cell survival as well as cell death mechanism. Therefore, it has been suggested that as a catabolic process autophagy is survival-supportive but when it exceeds the capacity for synthesis it promotes cell death. In response to oxidative stress, cancer cells upregulate level of anti-oxidants to escape cell death induced by ROS. This suggests a balanced ROS level determines the survival of cancer cells during oxidative stress. It has been suggested that ROS acts as a rapid response (ON/OFF switch) in the induction of autophagy. P62, an adapter protein in autophagy is known to undergo oxidation which alters its structure. These alterations modify/regulate autophagy in response to ROS. There are not enough studies linking COX-2 and autophagy. However effect of NSAIDS has been evaluated in various cancer studies involving autophagy. Pharmacologically targeting autophagy related miRNAs are a novel strategy to reverse drug resistance because autophagy as a cytoprotective promotes multidrug resistance. Therefore, we set out to study the role of COX-2 in inducing ROS mediated autophagy and further development of chemotherapeutic resistance.

*Development of Site of Metabolism (SOM) prediction model for sulfotransferase (SULT) catalyzed drug metabolism*

Recent studies highlight that ~50 % of drug development efforts fail.<sup>1</sup> Sulfotransferase (SULT) enzymes contribute to ~ 20 % of this. For example, Troglitazone is sulfonated in the liver by SULT and contributes to its toxicity and market withdrawal in 2000. Mostly site of metabolism (SOM) is not known and is hard to predict. Excellent SOM prediction models are available for cytochrome P450 (CYP450) Flavin Monooxygenase (FMO) and UDP-glucuronyl transferase (UGT). But SOM prediction models are unavailable for SULTs and only inhibitor prediction models are found scarcely in the literature. This leaves a major gap in the design of safe and effective drugs. In this project, SOM prediction models for SULT mediated Phase II reactions will be generated. The models will be tested, and validated using known drug, xenobiotic and endogenous sulfonation reactions reported in the literature.

*Computer-aided design and synthesis of non-hydroxamate lipophilic DXR inhibitors as antimicrobial/antiparasitic agents*

Aim of this project is to design and synthesize novel inhibitors of 1-Deoxy-D-xylulose-5-phosphate reductoisomerase (DXR) which is the second enzyme of MEP pathway that catalyzes the conversion of 1-deoxy-D-xylulose-5-phosphate (DOXP) to MEP. DXR is an established antimicrobial, antimycobacterial and antimalarial target. However, the currently known inhibitors of DXR are very hydrophilic leading to their unfavourable pharmacokinetic profile. Thus, our aim is to design novel inhibitors that lack highly polar hydroxamate group and are more lipophilic in nature. Molecular docking would be used to design these novel DXR inhibitors which will be screened against enzyme in vitro.

## (ii) Projects sanctioned during the year

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. in Lakh)
1.	Design and Evaluation of Stable Oral Suspension	Prof. R.N. Saha Dr. Sunil Kumar Dubey	Morningside Healthcare Ltd	32.00
2.	The impact of formulation variables and processing methods for solubility enhancement of poorly soluble model drug using Affinisol HPMCAS	Prof. R.N. Saha Dr. Sunil K Dubey	Colorcon Asia Private Limited	15.00
3.	Exploring the effects of polyamine and associated metabolic regulation of hypothalamic GnRH- GnIH synthesis and release during ageing in BALB/cJ mice	Dr. Arnab Banerjee (PI) Dr. Rajeev Taliyan (Co-PI)	DST-SERB	34.35
4.	Gel-based composite formulation containing asiaticoside and neurotensin for rapid healing of diabetic wounds	Dr. Anupama Mittal (PI) Dr Deepak Chitkara (Co-I)	ICMR	28.00
5.	Development of Novel Herbal Based Formulation for Skin Disorders	Dr. Sunil K Dubey (PI) Prof. Rajeev Taliyan (Co-I)	Etica ClinPharm	9.00
6.	Enhancement of oral bioavailability of selected drugs	Dr. Aniruddha Roy Dr. Gautam Singhvi	Intas Pharmaceutical Ltd.	45.00
7.	Design of novel ophthalmic drug delivery system	Dr. Gautam Singhvi Prof. R. N. Saha	Slayback Pharma Ltd	15.00
8.	DesiDesign and characterization of nanoparticle based drug delivery systems of anticancer drug.	Dr. Gautam Singhvi Dr. Murali M. Pandey	Crenza Pharmaceutical Pvt. Ltd.,	8.00
9.	Exploring the role of CYP450 redox potential in isoform specificity and Drug Metabolism.	Dr. Vaibhav A. Dixit	European Molecular Biology Organization (EMBO)	5.00

Brief write up of projects:

*Design and Evaluation of Stable Oral Suspension*

The project is focused on development and evaluation of stable oral suspension. The project includes analytical method development, development of stability indicating methods. Effect of variables which may impact scale up will be studied.

*The impact of formulation variables and processing methods for solubility enhancement of poorly soluble model drug using Affinisol HPMCAS*

The objective of the project is to check the impact of formulation variables and processing methods for solubility enhancement of poorly soluble model drug using Affinisol HPMCAS. Impact of process variables will be studied.

*Exploring the effects of polyamine and associated metabolic regulation of hypothalamic GnRH -GnIH synthesis and release during ageing in BALB/cJ mice*

Exploring the effects of polyamine and associated metabolic regulation of hypothalamic GnRH-GnIH synthesis and release during ageing in BALB/cJ mice. The regulation of gonadotropin releasing and inhibiting hormone (GnRH and GnIH) is of great significance with regards to mammalian reproductive system as they are the master regulator for the reproductive and other neuroendocrinological processes. There is an unanswered paradox exists in the metabolic regulation of GnRH, while lactate (a metabolite as well as a signaling molecule in the brain) shows a favourable effect on a neuronal function including energy production and uptaken by neuron and is preferred over glucose, high lactate condition due to metabolic alteration during ageing causes a reduction of GnRH availability.

Polyamines had been shown to be involved in the regulation of energy and glucose metabolism; so it would be interesting to investigate whether polyamine(s) might regulate the hypothalamic GnRH-GnIH system through lactate glucose shift in the hypothalamus in ageing model. Although extensive studies were carried out to understand the GnRH and GnIH regulation but these are mainly focused on endocrinological perspective and feedback mechanism, various autocrine, paracrine factors and neurotransmitters.

*Gel-based composite formulation containing asiaticoside and neurotensin for rapid healing of diabetic wounds*

The project proposes to fabricate a composite graft comprising of neurotensin coupled porous scaffolds and asiaticoside loaded nanoparticles in a carrier gel. Both asiaticoside and neurotensin possess well reported wound-healing potential but their benefit is limited due to the delivery problems associated with them. To overcome these problems, we propose to attach neurotensin onto the surface of porous scaffolds which will prolong its half-life. To prolong the activity of asiaticoside, we propose to encapsulate it into nanoparticles which being small size will facilitate efficient uptake into the cells. To enable co-delivery of these two molecules, a suitable carrier gel will be used so that the overall graft could be easily applied onto the wounded area using a collapsible tube.

*Development of Novel Herbal Based Formulation for Skin Disorders*

To design novel topical drug delivery systems of selected herbal drugs for selective distribution and better efficacy. Evaluation of the developed topical formulation and optimize various design parameters. Further, to study pharmacodynamic, pharmacokinetics and bio-distribution of the novel developed drug delivery systems in suitable animal models.

*Enhancement of oral bioavailability of selected drugs*

There are many drug molecules that does not get absorbed through GI tract very efficiently and due to that they exhibit very low bioavailability. Many of these drugs are given only through parenteral route to improve bioavailability. It would be highly beneficial if using nano-formulation approach the oral bioavailability of such drugs can be improved.

*Design of novel ophthalmic drug delivery system*

The objective of this project is to design and characterization of novel ophthalmic drug delivery system for anti-inflammatory drug. The project involved analytical method development, preformulation study, formulation trials, optimization, scale-up study and stability testing of optimized formulations. In-vitro, ex-vivo and in-vivo investigations will be carried out for designed formulation.

*Design and characterization of nanoparticle based drug delivery systems of anticancer drug*

The objective of project is to design and characterization of nanoparticle based drug delivery systems of anticancer drug. Drug encapsulated nanoformulation for cancer cell targeting will be prepared with industrial feasible method. Designed formulation will be evaluated for physicochemical characterization, drug release, surface characteristics, toxicity and efficacy. Scale up and stability testing will be performed for optimized formulations.

*Exploring the role of CYP450 redox potential in isoform specificity and Drug Metabolism*

The CYP450 isoforms are mainly involved in the Phase I metabolism of large number of drugs and xenobiotics. QSAR, Pharmacophore, ligand/structure-based, and hybrid models have been developed to explain substrate specificities, but have had limited success. These models work on small datasets and cannot predict novel reactions and reactive metabolite formation. How CYP450 isoforms are able to identify/oxidize different drugs with unique diversity and selectivity? Computational estimation of CYP450 redox potentials for protein-ligand complexes will be performed. Protein Film Voltammetry (PFV) redox potential measurements will be attempted to test and validate the hypothesis.

(iii) Projects completed this year

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. In Lakh)
1.	Role of Histone Ubiquitination & Angiotensin Converting Enzyme 2 in the Development of Renal Fibrosis under Type 1 Diabetic condition.	Prof. Gaikwad Anil Bhanudas	CSIR-EMR	14.86
2.	Exploring The Antiobesity Potential of Selected Ayurvedic Medicinal Plants Using Pancreatic Lipase Inhibition Assay and Synergy Guided Fractionation Approach	Dr. Atish T. Paul	DST SERB	27.30
3.	Combination delivery of small molecules and microRNA for treatment of locally advanced and metastatic breast cancer	Dr. Deepak Chitkara	DST-SERB	27.20
4.	Nano-formulation of lysophylline-fatty acid conjugate for effective treatment of diabetes	Dr. Anupama Mittal	DST-SERB	26.90

S.No.	Project Title	Principal Investigator	Agency	Sanction (Rs. In Lakh)
5.	Preliminary investigation, characterization and stability analysis of micelles formulation.	Dr. Gautam Singhvi Dr. Sunil K Dubey	Enaltec Pharma Research Private Limited	1.41
6.	Design and characterization of nanocrystals of poorly soluble drug for enhancement of dissolution and oral bioavailability	Dr. Murali M Pandey	BITS PILANI (RIG)	1.50

**Brief Write Up of Projects:**

*Role of Histone Ubiquitination & Angiotensin Converting Enzyme 2 in the Development of Renal Fibrosis under Type 1 Diabetic condition*

Hyperglycaemia-induced expression of extracellular matrix (ECM) components plays a major role in the development of diabetic nephropathy (DN). Up regulation of Renin Angiotensin System (RAS) is also involved in the pathogenesis of DN. Although chronic treatment with angiotensin receptor blockers (ARBs) and angiotensin converting enzyme (ACE) inhibitors are effective in delaying the progression of DN but it is not a cure, indicating requirement for finding additional pathways in RAS as a potential drug targets. ACE2, a component of non-conventional axis of RAS is involved in the degradation of Angiotensin II (Ang II), is found to be down regulated in diabetic kidney. Hence, the proposed study has proved the role of the histone H2AK119 and H2BK120 monoubiquitination in the development of renal fibrosis under type 1 diabetes. Further, effect of ACE2 activator (Diminazine acetate) has also been shown to retard the progression of DN by modulating different molecular pathways.

*Exploring the Antiobesity Potential of Selected Ayurvedic Medicinal Plants Using Pancreatic Lipase Inhibition Assay and Synergy Guided Fractionation Approach*

Obesity is one of the major metabolic disorder that is are a growing epidemic and by 2015, World Health Organization (WHO) estimates the number to increase upto 2.3 billion. Pancreatic lipase is the enzyme responsible for the hydrolysis of 50-70% of total dietary fats and is the most valid target to treat obesity. However orlistat that is the only approved antiobesity drug available in market has been reported to exhibit severe liver injuries, demanding discovery of new drugs. Natural product research based on herbals mainly focuses on bioassay driven strategy, but it is well known fact that most herbals work via synergy. Hence NPs from herbals fail in clinical trials. The current project will explore a new synergy directed fractionation strategy to identify, isolate and evaluate the synergist natural products as pancreatic lipase inhibitor and further evaluate them in high fat diet model in rats.

*Combination delivery of small molecules and microRNA for treatment of locally advanced and metastatic breast cancer*

Many diagnosed breast cancers are HER2/ER-/PR+, or HER2- and ER-/PR triple negative (TNBC) resulted in poor prognosis due to development of chemo-resistance and metastasis. miRNA-34a is a master tumor suppressor that can antagonize many oncogenic processes and could improve the efficacy of chemotherapeutic drugs such as docetaxel. The project aimed at simultaneous delivery of miR-34a and docetaxel using actively targeted polymeric system for locally advanced and metastatic breast cancer.

*Nano-formulation of lysophylline -fatty acid conjugate for effective treatment of diabetes*

The aim of the project is to prepare lysophylline (LSF)-fatty acid (LSF-FA) conjugate and deliver this conjugate using a micellar system and evaluate its efficacy in diabetic rats. We expect that LSF-FA conjugate will exhibit better encapsulation efficiency, slow metabolism and overall enhanced efficacy.

*Preliminary investigation, characterization and stability analysis of micelles formulation*

The objective of project was to investigate the stability and in-vitro characterization of designed micelles formulation of selected drug candidate. Based on particle size, zeta potential and TEM analysis, we have screened the stable formulations which can be optimized for scale up study at industrial facility.

*Design and characterization of nanocrystals of poorly soluble drug for enhancement of dissolution and oral bioavailability*

In this research work, we have worked on dissolution enhancement of efavirenz (EFZ) and curcumin by preparing its nanocrystals. EFZ nanocrystals having approximate particle size of 33 nm were successfully prepared using poloxamer 407 as stabilizer. The particle size was dependent on the quantity of surfactant used for nanocrystals preparation. EFZ nanocrystals were of amorphous nature as confirmed by the PXRD and DSC study. A promising enhancement in the drug dissolution form the prepared nanocrystals was observed. We also worked on dissolution enhancement of curcumin by preparing its nanocrystals. In this work, we used Soluplus as the stabilizer for the nanocrystal preparation. Nanocrystals of ratio 1:2, 1:4, 1:6

and 1:8 was prepared. The size of optimum formulation 1:8 was 73.6 nm. In this case also the size of nanocrystals was found to be reduced with the increase in amount of soluplus used in the formulation.

#### (IV) PATENTS

Dr. Sushil Kumay Yadav, Prof. R. Mahesh, Prof. Vishal Saxena, "Non-enzymatic method for large scale isolation of  $\beta$ - casein from milk" Patent application number 201811018301, dated: 16/05/ 2018

#### B. PUBLICATIONS

S.No	Authors	Title	Journals	Vol.	Page
1.	Joseph E, Reddi S, Rinwa V, Balwani G, Saha RN	DoE based Olanzapine loaded poly-caprolactone nanoparticles decreases extrapyramidal effects in rodent model	International Journal of Pharmaceutics	541	198–205
2.	Archana Khosa, Satish Reddi, Ranendra N Saha	Nanostructured lipid carriers for site-specific drug delivery	Biomedicine and Pharmacotherapy	103	598-613
3.	Archana Khosa, Kowthavarapu V Krishna, Ranendra N Saha, Sunil K Dubey, Satish Reddi	A simplified and sensitive validated RP-HPLC method for determination of Temozolomide in rat plasma and its application to a pharmacokinetic study	Journal of Liquid Chromatography & Related Technologies	41	692-697
4.	Archana Khosa, Sinha Shelly, Satish Reddi, Ranendra N Saha	Simple, Rapid and Sensitive UV Spectrophotometric Method for Determination of Temozolomide in Poly- $\epsilon$ -caprolactone Nanoparticles	Asian Journal of Chemistry	30	868-872
5.	Satish Reddi, Gautam Singhvi, Archana Khosa, Kowthavarapu Krishna, R N Saha	Determination of Venlafaxine in Bulk and Pharmaceutical Formulations Using Stability Indicating RP-HPLC Method with UV Detector	Current Pharmaceutical Analysis	15	257-264
6.	Philip Ryan, Bhautikkumar Patel, Vivek Makwana, Hemant R. Jadhav, Milton Kiefel, Andrew Davey, Tristan A. Reekie, Santosh Rudrawar, and Michael Kassiou	Peptides, Peptidomimetics, and Carbohydrate–Peptide Conjugates as Amyloidogenic Aggregation Inhibitors for Alzheimer's Disease	ACS Chemical Neuroscience	9	1530–1551
7.	Mahaveer Singh, Hemant R. Jadhav	Targeting non-small cell lung cancer with small-molecule EGFR tyrosine kinase inhibitors	Drug Discovery Today	23	745-753
8.	Pankaj Wadhwa, Priti Jain, Sirish Cholasamudram and Hemant R Jadhav	Synthesis and Biological Evaluation of N-(4-Fluorophenyl)-6-Methyl-2-Oxo-1,2, 3, 4-Tetrahydropyrimidine-5-Carboxamides as HIV Integrase Strand Transfer Inhibitors	Der Pharmacia Lettre	10	100-114
9.	Mahaveer Singh, Hemant R. Jadhav	Design, Synthesis and in-vitro evaluation of piperazine incorporated novel anticancer agents	Letters in Drug Design and Discovery	15	866-574
10.	Selvaraj Kunjiappan, Theivendren Panneerselvam, Parasuraman Pavadai, Balasubramanian Somasundaram, Murugesan Sankaranarayanan, Sankarganesh Arunachalam, Sureshbabu Ramkumar	Design and In-silico Modeling of Indoloquinoline Incorporated Keratin Nanoparticles for modulation of Glucose metabolism in 3T3-L1 adipocytes	Journal of Nanoscience and Nanotechnology	13	045012

S.No	Authors	Title	Journals	Vol.	Page
	Pandian, Damodar Nayak Ammunje				
11.	Nagesh shrivatsa, Srinivasarao singiredi, Amaroju suresh, Shashidhar Nizlapur, Sankaranarayanan Murugesan, Kumar kanneboina, Naresh Kumar, Chandra Sekhar Venkata Gowri Kondapalli	Sulfur assisted de-protection of methylene nitrile group: One-pot synthesis of 4- substituted-2H-1,2,3- triazoles	Chemistry Select	03	7565-7571
12.	Selvaraj Kunjiappan, Theivendren Panneerselvam, Suthendran Kannan, Balasubramanian Somasundaram, Murugesan Sankaranarayanan, Sankarganesh Arunachalam and Arockiasamy Manimaran	Optimization of Microwave- assisted Extraction of Bioactive Compounds from Dunaliella bardawil Using RSM and ANFIS Modeling and Assessment of the Anticancer Activity of Bioactive Compounds	Current Microwave Chemistry	05	1-16
13.	Sahil Mishra, Manpreet Kaur, Subhash Chander, Sankaranarayanan Murugesan, Lovedeep Nim, D.S. Arora, Palwinder Singh	Rational modification of a lead molecule: Improving the antifungal activity of indole - triazole - amino acid conjugates	European Journal of Medicinal Chemistry	155	658-669
14.	Selvaraj Kunjiappan, Theivendran Panneerselvam, Balasubramanian Somasundaram, Sankarganesh Arunachalam, Murugesan Sankaranarayanan and Pavadai Parasuraman	Preparation of liposomes encapsulated Epirubicin- gold nanoparticles for Tumor specific delivery and release	Biomedical Physics & Engineering Express	04	045027
15.	Subhash Chander, Ashok Penta, Cheng-Run Tangc, Yong-Tang Zheng, Deepak P. Bhagwat, Payal Patel, Sanskruti Sankpal, Murugesan Sankaranarayanan	Hit optimization studies on 3- hydroxy-indolin-2-one based compounds as potential anti- HIV-1 agents	Bioorganic Chemistry	79	212-222
16.	Subhash Chander, Penta Ashok, Rosa M Reguera, M Yolanda Perez-Pertejo, Ruben Carbajo- Andres, Rafael Balana-Fouce, Murugesan Sankaranarayanan	Synthesis and anti- leishmanial evaluation of benzopiperidine, benzopyridine and phenyl piperazine based compounds	Experimental Parasitology	189	49-60
17.	Selvaraj Kunjiappan, Parvathy Prasad, Sunija Sukumaran, Balasubramanian Somasundaram, Sundar Krishnan, Murugesan Sankaranarayanan, Indhumathy Murugan, Shrinivas D. Joshi, Sabu Thomas and Panneerselvam Theivendran	Design, Graph Theoretical Analysis and In-silico Modeling of Dunaliella bardawil biomass Encapsulated Keratin Nanoparticles: A Scaffold for Effective Glucose Utilization on 3T3-L1 Adipocytes	Biomedical Materials	13	045012
18.	Helmi Mohammed Al-Maqtaria, Joazaizulfazli Jamalisa, Subhash Chander, Hasnah Mohd Sirat, Shivalingegowda Naveen, Neratur Krishnappagowda Lokanath, Siti Pauliena Mohd Boharie, Deepak P. Bhagwat, Murugesan Sankaranarayanan	Synthesis, in silico and antifungal studies of novel thiophene analogues containing pyrazole ring	Letters in Drug Design & Discovery	15	1202-1210
19.	Penta Ashok, Subhash Chander, Terry K. Smith, Murugesan Sankaranarayanan	Design, synthesis and biological evaluation of piperazinyl- $\beta$ -carboline derivatives as anti-	European Journal of Medicinal Chemistry	150	559-566

S.No	Authors	Title	Journals	Vol.	Page
		leishmanial agents			
20.	Kunjiappan Selvaraj, Theivendren Panneerselvam, Somasundaram Balasubramanian, Sankaranarayanan Murugesan, Chowdhury Rajdeep, Chowdhury Anindita, Bhattacharjee Chiranjib	Design, in silico modeling, bio-distribution study of rutin and quercetin loaded-stable human hair keratin nanoparticles intended for anticancer drug delivery	Biomedical Physics & Engineering Express	04	025019
21.	Chowdhury A, Panneerselvam T, Suthendran K, Bhattacheejee C, Balasubramanian S, Murugesan S, Suraj B, Selvaraj K.	Optimization and validation of microwave-assisted extraction of bioactive polyphenolic compounds from Marsilea quadrifolia using RSM and ANFIS Modeling	Indian Journal of Natural Products and Resources	9(3)	204-221
22.	Sorabh Sharma,. Rajeev Taliyan	High Fat Diet feeding induced insulin resistance exacerbates 6-OHDA mediated neurotoxicity and behavioral abnormalities in rats	Behavioral Brain Research	351	17-23
23.	Sharma N, Anders HJ, Gaikwad AB	Fiend and friend in the renin angiotensin system: An insight on acute kidney injury	Biomedicine and Pharmacotherap y	110	764-774
24.	Goru SK, Gaikwad AB	Novel reno-protective mechanism of Aspirin involves H2AK119 monoubiquitination and Set7 in preventing type 1 diabetic nephropathy	Pharmacological Reports	70	497-502
25.	Kishan S Italiya, Samrat Mazumdar, Deepak Chitkara, Anupama Mittal	Self-assembling lisofylline- fatty acid conjugate for effective treatment of diabetes mellitus	Nanomedicine: Nanotechnology, Biology, and Medicine	15	175-187
26.	Siddharth Uppal, Kishan S. Italiya, Deepak Chitkara Anupama Mittal.	Nanoparticulate-based drug delivery systems for small molecule anti-diabetic drugs: an emerging paradigm for effective therapy	Acta Biomaterialia	81	20-42
27.	Upendra Bulbake, Sonam Jain, Neeraj Kumar, Anupama Mittal	Curcumin loaded biomimetic composite graft for faster regeneration of skin in diabetic wounds	Journal of Drug Delivery Science Technology	47	12-21
28.	Samrat Mazumdar, Kishan S Italiya, Saurabh Sharma, Deepak Chitkara, Anupama Mittal	Effective cellular internalization, cell cycle arrest and improved pharmacokinetics of Tamoxifen by cholesterol based lipopolymeric nanoparticles.	International Journal of Pharmaceutics	543	96-106
29.	Saurabh Sharma, Samrat Mazumdar, Kishan S Italiya, Tushar Date, Ram I Mahato, Anupama Mittal, Deepak Chitkara	Cholesterol and Morpholine Grafted Cationic Amphiphilic Copolymers for miRNA-34a Delivery	Molecular Pharmaceutics	15	2391-2402
30.	Tushar Date, Vaishnavi Nimbalkar, Jyotsna Kamat, Anupama Mittal, Ram I Mahato, Deepak Chitkara	Lipid-polymer hybrid nanocarriers for delivering cancer therapeutics	Journal of Controlled Release	271	60-73
31.	Ishit S. Kothari, Kishan S Italiya,	A rapid and precise HPLC -	Journal of	56	888-894



S.No	Authors	Title	Journals	Vol.	Page
	Saurabh Sharma, Anupama Mittal, Deepak Chitkara	UV method for simultaneous determination of alpha-lipoic acid and docetaxel in lipid based nano-formulations.	Chromatographic Sciences		
32.	Swetha KL, Roy A	Tumor heterogeneity and nanoparticle-mediated tumor targeting: the importance of delivery system personalization.	Drug Delivery and Translational Research	8	1508-1526
33.	Lohitesh K, Saini H, Srivastava A, Mukherjee S, Roy A, Chowdhury R	Autophagy inhibition potentiates SAHA mediated apoptosis in glioblastoma cells	Oncology Reports	39	2787-2796
34.	Pasha SS, Fageria L, Climent C, Rath NP, Alemany P, Chowdhury R, Roy A, Laskar IR	Evaluation of a Novel Platinum (II) Based AIE Compound-Encapsulated Mesoporous Silica Nanoparticles for Cancer Theranostic Application.	Dalton Transactions	47	4613-4624
35.	Sunil Kumar Dubey, Gautam Singhvi, Kowthavarapu Venkata Krishna, Tejas Agnihotri, Ranendra Narayan Saha, Gaurav Gupta	Herbal Medicines in Neurodegenerative Disorders: An Evolutionary Approach through Novel Drug Delivery System	Journal of Environmental Pathology, Toxicology and Oncology	37	199-208
36.	Sunil Kumar Dubey, Kommera Sai Pradyuth, Sreehari Krishna Kulkarni and Gautam Singhvi	Pharmacokinetic pharmacodynamic modeling and its relevance in the drug discovery	International Journal of Pharmacokinetics	3	91-92
37.	Archana Khosa, Kowthavarapu V. Krishna, Ranendra N. Saha, Sunil K. Dubey, Satish Reddi	A simplified and sensitive validated RP-HPLC method for determination of temozolomide in rat plasma and its application to a pharmacokinetic study	Journal of Liquid Chromatography & Related Technologies	41	692-697
38.	G Singhvi, P Manchanda, VK Rapalli, SK Dubey, G Gupta, K Dua	MicroRNAs as biological regulators in skin disorders	Biomedicine & Pharmacotherapy	108	996-1004
39.	KV Krishna, RN Saha, SK Dubey	Synthesis and preclinical neuroprotective potency of memantine-alpha lipoic acid conjugate in cognitive disorder	Alzheimer's & Dementia: The Journal of the Alzheimer's Association	14	1081
40.	Vamshi Krishna Rapalli, Gautam Singhvi, Sunil Kumar Dubey, Gaurav Gupta, Kamal Dua	Emerging landscape in psoriasis management: From topical application to targeting biomolecules	Biomedicine & Pharmacotherapy	106	707-713
41.	Sandhya Pittala, Vedula Girija Sastry, Rapalli Vamshi Krishna, Sunil Kumar Dubey and Gautam Singhvi	Liquid chromatographic estimation of leuprolide acetate in bulk and microsphere formulation	Asian Journal of Chemistry	30	1349-1353
42.	A Canchi, A Khosa, G Singhvi, S Banerjee, SK Dubey	Design and Characterization of Polymeric Nanoparticles of Pioglitazone Hydrochloride and Study the Effect of Formulation Variables Using QbD Approach	Current Nanomaterials	3	162-168
43.	K V Krishna, Ranendra N Saha, Gautam Singhvi, Sunil Kumar Dubey	Pre-clinical pharmacokinetic-pharmacodynamic modeling and biodistribution studies of	RSC Advances	8	24740-24749

S.No	Authors	Title	Journals	Vol.	Page
		donepezil hydrochloride by a validated HPLC method			
44.	A Misra, S. Sharma, D. Sharma, S.K. Dubey, A. Mishra, D. Kishore, J. Dwivedi	Synthesis and molecular docking of pyrimidine incorporated novel analogue of 1,5-benzodiazepine as antibacterial agent	Journal of Chemical Sciences	130	31
45.	Waghule T., Singhvi G., Dubey S.K., Pandey M.M., Gupta G., Singh M., Dua K.	Microneedles: A smart approach and increasing potential for transdermal drug delivery system	Biomedicine & Pharmacotherapy	109	1249-1258
46.	Sridhar S.N.C. Sengupta P, Paul AT	Development and validation of a new HPTLC method for quantification of conophylline in Tabernaemontana divaricata samples obtained from different seasons and extraction techniques: Insights into variation of pancreatic lipase inhibitory activity.	Industrial Crops and Products	111	62-470
47.	Gaurav Joshi, Aabid Abdullah Wani, Sahil Sharma, Priyadeep Bhutani, Prasad V. Bharatam, Atish T. Paul, Raj Kumar	Unanticipated Cleavage of 2-Nitrophenyl-Substituted N-Formyl Pyrazolines under Bechamp Conditions: Unveiling the Synthesis of 2-Aryl Quinolines and Their Mechanistic Exploration via DFT Studies	ACS Omega	3	8783–1870

## C. CONFERENCES ATTENDED/PAPERS PRESENTED

S.No.	Authors	Title	Name of Conference	Place	Date
1.	Sushil Kumar Yadav, R. Mahesh, Vishal Saxena	Cow milk peptide (BCM7) induced histopathological changes in rat bone	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018)	BITS, Pilani	November 01– 03, 2018
2.	Sushil Kumar Yadav, R. Mahesh, Vishal Saxena	Epidemiological study of $\beta$ -casein alleles on human health	Golden Jubilee Concluding Celebrations & Annual Conference of Indian Pharmacological Society Conference	Shobhaben Pratapbhai Patel School of Pharmacy and Technology Management (SVKM) NMIMS, Mumbai	February 15 - 17, 2018
3.	D. Mounika, Banoth Karan Kumar, S. Murugesan	Design and study of novel isatin analogues as potential anti-HIV agents	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018)	BITS, Pilani	November 01– 03, 2018
4.	B. Karan Kumar, K. Ratnakar reddy, G. Achaiah, S. Murugesan	3-Styryl-4H-Chromen-4-One Derivatives as Novel Cytotoxic Agents	National Conference on Emerging Trends in Computational Drug Discovery	KIET Group of Institutions, Ghaziabad	August 16-17, 2018
5.	Subhash Chander and Murugesan Sankaranarayanan	Synthesis of Novel Glycinamides of 6,7-Dimethoxy-1, 2, 3, 4-Tetrahydroisoquinolines via Rapid, Green, Efficient Microwave-Assisted Approach and their	National Symposium on Exploring the Advances and Challenges in Green and Protein Chemistry: Industry and Academia Perspectives	Department of Pharmaceutical Chemistry, JSS College of Pharmacy, Ooty	March 9-10, 2018

S.No.	Authors	Title	Name of Conference	Place	Date
		Antimicrobial Evaluation			
6.	Subhash Chander, Pankaj Bateja, Deepak P. Bhagwat, Ashok Penta, Joazaizulfazli Jamalis, Yong-Tang Zheng, Murugesan Sankaranarayanan	Design, synthesis and anti-HIV-1 RT activity of 5-benzoyl-4-methyl-1,3,4,5-tetrahydro-2H-1,5-benzodiazepin-2-one derivatives	National Conference	Department of Pharmacy, Sunrise University, Alwar	February 24-25, 2018
7.	Rajamanickam Kannadhasan, Saravanan Dhandayutham, Subhash Chander and Sankaranarayanan Murugesan	Synthesis and study of novel 2-oxo-6-[(1,3-benzothiazole-2-ylthio)-phenyl]-1,2,3,4-tetrahydropyrimidine-5-carboxylate ethyl ester derivatives as antimicrobial agents	International Conference on Recent Trends in Synthetic Methods and Material Chemistry (RTSMC-2018)	Annamalai University, Annamalai Nagar	February 02-03, 2018
8.	Subhash Chander, Ping Wang, Penta Ashok, Yong-Tang Zheng and Murugesan Sankaranarayanan	Design, synthesis and anti-HIV-1 RT activity of novel 6-methoxy-tetrahydroquinoline based compounds	International Conference on Recent Trends in Synthetic Methods and Material Chemistry (RTSMC-2018)	Annamalai University, Annamalai Nagar	February 02-03, 2018
9.	Subhash Chander, Ping Wang, Penta Ashok, Liu-Meng Yang, Yong-Tang Zheng and Murugesan Sankaranarayanan	Design, synthesis and evaluation of 1-(4-phenylpiperazin-1-yl)ethanone based compounds as HIV-1 RT inhibitors	24th ISCB International Conference (ISCB-2018), Frontier Research in Chemistry & Biology Interface organized by Indian Society of Chemists and Biologists	Manipal University, Jaipur	January 11-13, 2018
10.	Sarathlal K C, Ramanathan A, Deepak Chitkara, Rajeev Taliyan	Evaluation of combinatorial neuroprotective efficacy of PPAR $\gamma$ agonist and HDAC inhibitor on SH-SY5H cell line'	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences	BITS-Pilani	November 01-03, 2018
11.	Rajeev Taliyan	Exploring epigenetic modification in AD and developing brain targeted nano-carrier system for effective treatment	Annual conference of ISNM " Nanobiotech-2018	AIIMS, New Delhi	October 25-27, 2018
12.	Sarathlal K C, Sruthi Ramagiri, Deepak Chitkara, Rajeev Taliyan	Neuroprotective Effect of Rosiglitazone, PPAR $\gamma$ agonist, in HFD Induced Insulin Resistance and Associated Alzheimer's Type of Dementia'	50th Annual Conf of Indian Pharmacological Society (IPSCON - 2017)	NMIMS-Mumbai	February 15 - 17, 2018,
13.	Sharma N, Malek VM, Gaikwad AB	Hyperglycemia worsens acute kidney injury by reducing AT2 receptor/ ACE2 expression	Golden Jubilee Concluding Celebrations & Annual Conference of Indian Pharmacological Society	SVKM NMIMS, Mumbai	February 15 - 17, 2018,
14.	Malek VM, Sharma NS, Gaikwad AB	Histone acetylation: an epigenetic modulator of natriuretic peptides and neprilysin expression in type 1 diabetic cardiac dysfunctions	Golden Jubilee Concluding Celebrations & Annual Conference of Indian Pharmacological Society	SVKM NMIMS, Mumbai	February 15 - 17, 2018,
15.	Sharma N, Malek V, Gaikwad AB	Role of protective renin-angiotensin system intervention in preventing renal ischemia/reperfusion injury in diabetic rats	International Symposium on Molecular Medicine (ISMM-2018)	SGPGIMS, Lucknow	December 14-16, 2018

S.No.	Authors	Title	Name of Conference	Place	Date
16.	Malek V., Sharma N, Gaikwad AB	Neprilysin inhibitor and angiotensin converting enzyme 2 activator combination prevented diabetic nephropathy	International Symposium on Molecular Medicine (ISMM-2018)	SGPGIMS, Lucknow	December 14-16, 2018
17.	Surve Dhanashree, Jindal Anil	Co-encapsulation of HIV-1 entry inhibitor peptide and non-nucleoside reverse transcriptase inhibitor (NNRTI) in stearic acid based lipid nanoparticles: formulation optimization & physicochemical characterization	16th International symposium on Advances in Technology and Business Potential of New Drug Delivery Systems (Organised by Controlled release society)	The Lalit, Mumbai	February 23-24, 2018
18.	Aditi Singh, Jalpa Vataliya, Prabhjeet Singh, Deepak Chitkara	miRNA therapeutics for treatment of glioblastoma multiforme	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS-2018)	BITS-Pilani	November 01- 03, 2018
19.	Jalpa Vataliya, Shruti Shah, Prabhjeet Singh, Deepak Chitkara	Tumor Microenvironment and Targeted Nano-Delivery in Glioblastoma Multiforme	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS-2018)	BITS-Pilani	November 01- 03, 2018
20.	Siddharth Uppal, Kishan S Italiya, Deepak Chitkara, Anupama Mittal.	Nanoparticulate-based drug delivery systems for anti-diabetic drugs	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018)	BITS Pilani, Pilani	November 01- 03, 2018
21.	Kishan S Italiya, Samrat Mazumdar, Saurabh Sharma, Deepak Chitkara, Ram I Mahato, Anupama Mittal	Self-assembling lisofylline-fatty acid conjugate for effective treatment of diabetes mellitus	National Biomedical Research Competition (NBRCOM-2018)	AIIMS, Rishikesh	October 15, 2018
22.	Tejashree Waghule, Neha Hans, Prachi Manchanda, Vamshi Krishna Rapalli, Gautam Singhvi.	Quality by design based development of nanostructured lipid carriers of voriconazole.	National Seminar on "Nanotechnology to Translational Nanomedicine: Status Assessment, Challenges and New Horizons"	The University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur (C.G.).	March 15-17, 2018
23.	Shriyansh Srivastava, Subham Choudhury, Vedhant Kaul, Vamshi Krishna Rapalli, Gautam Singhvi.	Telmisartan nanocrystals: an economic way to improve the solubility and dissolution.	National Seminar on "Nanotechnology to Translational Nanomedicine: Status Assessment, Challenges and New Horizons"	The University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur (C.G.).	March 15-17, 2018
24.	Gautam Singhvi, Vamshi Krishna Rapalli, Sunil K. Dubey, Sandhya Pittala, Vedula Girija Sastry.	Preparation and characterization of depot injectable microspheres of leuprolide acetate	CPSBT-2018	NIPER-Ahmedabad	March 21-24, 2018

S.No.	Authors	Title	Name of Conference	Place	Date
25.	Vamshi K. Rapalli, Gautam Singhvi	Lipid-based nanocarriers of anti-psoriatic drugs for enhancing permeation through the skin.	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018),	BITS Pilani	November 01– 03, 2018
26.	Pandey M. M., Charde S.Y.	Design and Characterization of Felodipine Nanocrystals using Soluplus	Golden Jubilee Concluding Celebration and Annual Conference of Indian Pharmacological Society (IPSCON - 2017)	SVKM NMIMS, Mumbai	February 15-17, 2018
27.	Saha P., Lulla C., Sehgal A., Pandey M.M.	Dissolution Enhancement of Curcumin by Preparing Nanocrystals	International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS-2018)	BITS Pilani	November 01– 03, 2018
28.	Sharma S, Roy A.	Chitosan- Chondroitin sulfate based polyelectrolyte complex for effective management of chronic wounds.	Life Science Research & its Interface with Engineering and Allied Sciences	BITS Pilani	November 01– 03, 2018
29.	Swetha KL, Roy A.	Drug Combination for Targeting Chemo-Resistant Cancer Stem Cells.	Life Science Research & its Interface with Engineering and Allied Sciences	BITS Pilani	November 01– 03, 2018
30.	K V Krishna, S K Dubey, R N Saha, Gautam Singhvi, Maneesh Goyal	Analytical Method for the Isomeric Separation of Sennosides	National Conclave "Vanoushadhi -2018"	Raipur, C.G.	February 3-4, 2018
31.	Gautam Singhvi, Sunil K Dubey, Vishal Girdhar, Shalini Patil	Gelatin: A Versatile Biopolymer for Pharmaceutical and Biomedical Application	National Conclave "Vanoushadhi -2018"	Raipur, C.G.	February 3-4, 2018
32.	Sunil Kumar Dubey, K V Krishna, R N Saha	Exploring the Compartmental Pharmacokinetics and Bio-distribution of Donepezil Hydrochloride	9th World Congress on Bioavailability and Bioequivalence	Dubai, UAE	April 16- 18, 2018
33.	Krishna K V, Saha R N, S.K. Dubey	Synthesis and Pre-Clinical Neuroprotective Potency of Memantine-Alpha lipoic acid Conjugate in Cognitive Disorders	Alzheimer's Association of International Conference	Chicago, USA	July 21-26, 2018
34.	Prashant Tiwari, Sunil Kumar Dubey, Pratap Kumar Sahu	Protective Effect of Methanolic Extract of <i>Tinospora cordifolia</i> Against Sulpiride Induced Hyperprolactinemia	Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018)	BITS Pilani, Pilani	November 01– 03, 2018
35.	Krishna K V, Geetika Wadhwa, Sunil K Dubey, R N Saha	Enantioselective Analysis and Molecular Modeling Studies of Tolvaptan	Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018)	BITS Pilani, Pilani	November 01– 03, 2018
36.	Priyansha Gupta, Saniya Dasot, Gautam Singhvi, S.K. Dubey	Harnessing Technology to Transform Healthcare: From Diagnostics to Virtual Care	Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018)	BITS Pilani, Pilani	November 01– 03, 2018
37.	SNC Sridhar, Atish T. Paul	Conophylline - A Potential Pancreatic Lipase Inhibitory Lead from <i>Tabernaemontana divaricata</i> : In silico, Synthesis and In vitro Studies	1st National Biomedical Research Competition (NBRCOM-2018)	All India Institute of Medical Sciences (AIIMS), Rishikesh	October 15, 2018
38.	Ginson George, SNC Sridhar, Atish T. Paul	Synergy Approach Based Pancreatic Lipase Inhibitory Effects of Selected Indian	Challenges for Global Competitiveness of AYUSH and Natural	Delhi Pharmaceutical Sciences &	February, 02-01, 2018

S.No.	Authors	Title	Name of Conference	Place	Date
		Medicinal Plants as Anti-obesity Agents	Products with IASTAM Oration and Award Function 2018	Research University	
39.	SNC Sridhar, Atish T. Paul	Conophylline - A Potent Pancreatic Lipase Inhibitor from <i>Tabernaemontana divaricata</i> : Molecular Modelling, In Vitro Studies and Analytical Method Development" under the theme	Challenges for Global Competitiveness of AYUSH and Natural Products with IASTAM Oration and Award Function 2018	Delhi Pharmaceutical Sciences & Research University	February, 02-01, 2018

#### D. BOOKS CHAPTER PUBLISHED/EDITED DURING THE YEAR

##### Book

S.No.	Editors	Title	Publisher
1.	Deepak Chitkara, Anupama Mittal, and Ram I. Mahato	Molecular Medicines for Cancer: Concepts and Applications of Nanotechnology	CRC Press, Taylor Francis, Florida, USA

##### Book Chapter

S.No.	Authors	Title	Publisher
1	Deepali Gupta, Radhakrishnan Mahesh	Antidepressant therapy for depression: An update	Understanding Depression: Volume 2. Clinical Manifestations, Diagnosis and Treatment, Springer Nature Singapore Pvt. Ltd.
2	Surve Dhanashree Hemant, Paul Atish Tulsiram, Jindal Anil B	Nanotechnology based delivery of nutraceuticals in Environmental Nanotechnology	Environmental Chemistry for a Sustainable World (Volume 2), Springer
3	Vinayak S Mharugde, Sudeep Pukale, Saurabh Sharma, Anupama Mittal, Deepak Chitkara	Advancements in polymeric systems for nucleic acid delivery	Molecular Medicines for Cancer: Concepts and Applications of Nanotechnology, CRC Press, Taylor Francis, Florida, USA
4	Gautam Singhvi, Saswata Banerjee, Archana Khosa	Lytotropic liquid crystal nanoparticles: A novel improved lipidic drug delivery system	Organic Materials as Smart Nanocarriers for Drug Delivery, Elsevier
5	Gautam Singhvi, Rapalli Vamshi Krishna, Kowthavarapu V. Krishna, Sunil Kumar Dubey	Alginate: Drug Delivery and Application	Alginates: Versatile Polymers in Biomedical Applications and Therapeutics Apple Academic Press

#### E. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED

1. Prof. R.N. Saha conducted a workshop on "Bioavailability and Bioequivalence" at 9th World Congress on Bioavailability and Bioequivalence at Dubai, UAE, April 16-18, 2018.
2. Dr. Sunil Kumar Dubey conducted a workshop on, "Analytical and statistical tools for bioavailability & bioequivalence studies" at 9th World Congress on Bioavailability & Bioequivalence, UAE Dubai, UAE, April 16-17, 2018.
3. Dr. Atish T. Paul in collaboration with Dr. Karthik J and Dr. Hemant Bhutani from Biocon-BMS Bangalore, organized a One day Industry-Academia Symposium on Analytical Sciences at Department of Pharmacy, BITS Pilani on 24 November 2018.

#### F. INVITED TALKS GIVEN BY BITS FACULTY

1. Prof. R.N. Saha delivered a talk on "Pharmacovigilance and Novel Delivery Systems: Avoiding or Reduced ADR" at International Conference on "Challenges in Clinical Trials and Pharmacovigilance of New Drugs, Genetically Modified Products and Herbal Drugs" at Bahra University Shimla, March 28-29, 2018.
2. Prof. R.N. Saha delivered a talk on "Bioavailability and Biodistribution Studies for Design of Novel Delivery Systems" at 9th World Congress on Bioavailability and Bioequivalence at Dubai, UAE, April 16-18, 2018.

3. Prof. R.N. Saha delivered a talk on "Challenges for International Campus established by Indian Universities" at Education Innovation Conference at Bengaluru, India September 4-5, 2018.
4. Prof. R.N. Saha delivered a talk on "Formulation Development and pharmacokinetic studies of phyto-pharmaceuticals" at 1<sup>st</sup> National Conclave, "Vonoushadhi" Raipur, Feb 3-4 2018.
5. Prof. Hemant R. Jadhav delivered a talk on "Computer Aided Drug Design in Drug Discovery: Case study of BACE-1 inhibitors" at Continuous Education Programme for Pharmacy Teachers entitled "Latest Advancements in Pharmaceutical Education and Research" at Sardar Bhagwan Singh PG Institute of Biomedical Sciences & Research (SBSPGI), Balawala, Dehradun, September 20-22, 2018
6. Prof. Hemant R. Jadhav delivered a talk on "Role and challenges for Pharmacists' on World Pharmacist's Day at Jayoti Vidyapeeth Women's University, Jaipur on September 25, 2018.
7. Prof. S Murugesan delivered a talk on " Identification of 5-Substituted-3-Hydroxyindoline based compounds as potential inhibitor of HIV-1 RT " at International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), organized by Department of Biological Sciences, BITS Pilani, November 1-3, 2018.
8. Prof. S Murugesan delivered a talk on "3-hydroxyindolin-2-one based compounds as potential inhibitor of HIV-1 Reverse Transcriptase" at International Conference of Pharmacology & Drug Discovery, organized by School of Pharmacy & School of Basic & Applied Sciences, Maharaja Agrasen University, Solan-174103. Himachal Pradesh, October 4-6, 2018.
9. Prof. S Murugesan delivered a talk on " Design and study of novel HIV-1 RT inhibitors as anti-HIV agents" at International Conference on Biotechnology: Towards Sustainable Future, organized by Department of Biotechnology, P.S.R. Engineering College, Sivakasi, Tamil Nadu, February 1-2, 2018.
10. Prof. Rajeev Taliyan delivered a talk on "Neuroprotective role of resveratrol against recurrent stroke: putative role of oxidative stress and sirtuin1" at 50<sup>th</sup> Annual Conference of Indian Pharmacological Society (IPSCON - 2017) at NMIMS-Mumbai, February 15-17, 2018.
11. Prof. Rajeev Taliyan chaired the session, "Neuropharmacology" at 50<sup>th</sup> Annual Conference of Indian Pharmacological Society (IPSCON - 2017) at NMIMS-Mumbai, February 15-17, 2018.
12. Prof. Gaikwad Anil Bhanudas delivered a talk on, "The un-explored link between AT2R and ACE-2 activity: An extension to the protective arm of RAS in diabetic nephropathy research" at Golden Jubilee Concluding Celebrations at SVKM's NMIMS, Mumbai, Maharashtra, February 15-17, 2018.
13. Dr. Atish T. Paul delivered a talk on "Conophylline Inspired Carbazole and Indole Oxoacetamides Analogues as Anti-obesity Leads" in DDNPTM-2018 held at NIPER-S.A.S Nagar, Mohali, Punjab, November 15-17, 2018
14. Dr. Deepak Chitkara delivered a talk on, "Nano-carriers for Delivering Hydrophobic Small Molecules: Overcoming Hurdles in their Scale-Up" at "5<sup>th</sup> Annual Biopharmaceutical Research & Development Symposium" held at University of Nebraska Medical Center (UNMC), Omaha, NE, USA, September 5-6, 2018.
15. Dr. Deepak Chitkara delivered a talk on "Lipo-polymeric nanoplexes: From synthesis to their use as effective carriers for miRNAs" in RNA biology laboratory National Cancer Institute Frederick, MD September 7, 2018.
16. Dr. Deepak Chitkara delivered a talk on "Non-viral lipo-polymeric nanoplexes: an emerging platform for delivering therapeutic miRNAs" at "International Symposium Academic-Industry-Government Partnerships to Accelerate Radiation Research and Clinical Translation (AIG-2018)" at University of Goa, October 8-9, 2018.
17. Dr. Deepak Chitkara delivered a talk on "Folate-targeted lipo-polymeric nanoplexes for co-delivery of miRNA-34a and docetaxel for the treatment of breast cancer" at "1<sup>st</sup> National Biomedical Research Competition (NBRCOM-2018)" at AIIMS, Rishikesh, October 15, 2018.
18. Dr. Anupama Mittal delivered a talk on, "Self-assembled Nanoformulation of Lisofylline-Fatty Acid Conjugate For Effective Treatment of Diabetes" at "International Symposium of Molecular Medicine" at SGPGIMS (Lucknow), December 14-16, 2018.
19. Dr. Sunil Kumar Dubey delivered a talk on, "Regulatory Implications; Role of Nanotherapeutics and Biologics in Neurodegenerative Disorders" at "10<sup>th</sup> NIPER (R) symposium on Nano Based Therapy for Neurodegenerative Diseases" at NIPER Raebareli, March 27-28, 2018.
20. Dr. Sunil Kumar Dubey delivered a talk on, "Computational Tools in Pharmacokinetics: Approach in Drug Discovery" at 9<sup>th</sup> World Congress on Bioavailability and Bioequivalence at Punjabi University, Patiala, September 6-7, 2018.

21. Dr. Sunil Kumar Dubey delivered a talk on, "PK-PD Modeling and Simulations" at NIPER Raebareli, November 05, 2018.

#### G. INVITED TALKS ARRANGED IN THE DEPARTMENT

1. "Translational/Clinical Pharmacokinetics Studies to Facilitate Oncology Drug Development" by Prof. Pankaj Desai (Professor of 'Pharmacokinetics and Biopharmaceutics', University of Cincinnati) on 17th November 2018.
2. "Delivery of Biopharmaceuticals" Dr. Sachin Dubey (Head of Formulation, Analytical and Drug Product Development, Glenmark Pharmaceuticals, Switzerland) on 1st November, 2018

#### H. AWARDS AND RECOGNITIONS WON BY FACULTY AND STUDENTS

1. Dr. Anil Jindal received Eudragit Award (2017) for the best research paper entitled "Development of efavirenz loaded solid lipid nanoparticles: Risk assessment, quality-by-design (QbD) based optimisation and physicochemical characterization" in Indian region by Evonik Health Care; Award comprises of €1,500 cash prize and a certificate.
2. Dr. Vaibhav Dixit has been awarded EMBO short-term fellowship to visit University of Manchester, UK in 2018.
3. Dr. Gautam Singhvi has been selected as Guest editor for thematic issue, "Development of nanoformulations using Quality by Design (QbD) approach" Nanoscience & Nanotechnology – ASIA, Bentham Science USA.
3. Dr. Gautam Singhvi has been selected as 'Bentham Ambassador' for year 2018-2019 by Bentham Science Publisher, USA.
4. Prof. Rajeev Taliyan visited Taipei Medical University under University Exchange Program from 18 May - 16 July, 2018.
5. Mr. S N C Sridhar (PhD scholar working with Dr. Atish T. Paul) has been awarded the "Dr. Shyambalaji Achuthan Award for Excellence in the field of Pharmacology" for his research work entitled "Conophylline - A Potential Pancreatic Lipase Inhibitory Lead from *Tabernaemontana divaricata*: In silico, Synthesis and In vitro Studies" at the 1st National Biomedical Research Competition (NBRCOM-2018), held at the All India Institute of Medical Sciences (AIIMS), Rishikesh on October 15, 2018. He has also received 10<sup>th</sup> prize in Poster session under the category of AYUSH for this topic.
6. Mr. Ginson George (Ph.D. scholar working with of Dr. Atish T. Paul) received second prize in poster presentation on his paper entitled, "Development of Anti-Obesity Tea Polyphenol- Orlistat Combination by Synergy Guided Fractionation Approach" at the 6th International Biennial Conference on "New Developments and Drug Discovery from Natural Products and Traditional Medicines" at NIPER, S.A.S. Nagar, November 15-17 2018, Punjab, India.
7. Mr. Sridhar SNC (PhD scholar with Dr. Atish T. Paul) and Mr. Saurabh Sharma (PhD scholar with Dr. Deepak Chitkara) have been selected for CSIR-SRF (2017-2018), while Mr. Vajirbhai Mahebubhai Malek (Ph.D. scholar with Dr. Anil B. Gaikwad) received ICMR-SRF fellowship.
8. Mr. S N C Sridhar (PhD scholar working with Dr. Atish T. Paul) has received SECOND PRIZE in Oral session for the topic entitled "Conophylline - A Potent Pancreatic Lipase Inhibitor from *Tabernaemontana divaricata*: Molecular Modelling, In Vitro Studies and Analytical Method Development" under the theme "Trends in Standardization and Validation of AYUSH Drugs (OSVA)" of International Conference on Challenges for Global Competitiveness of AYUSH and Natural Products and IASTAM Oration Award Function 2018, held at Delhi Pharmaceutical Sciences and Research University during February 2-4, 2018
9. Mr. Ginson George (PhD research scholar working with Dr. Atish Paul) has received BEST POSTER AWARD for the topic entitled "Synergy Approach Based Pancreatic Lipase Inhibitory Effects of Selected Indian Medicinal Plants as Anti-obesity Agents" under the theme "Advances in Pharmacological Evaluation of Herbal Drugs/Products (P-PEH)" of International Conference on Challenges for Global Competitiveness of AYUSH and Natural Products and IASTAM Oration Award Function 2018, held at Delhi Pharmaceutical Sciences and Research University during February 2-4, 2018
10. Dr. Sushil Kumar Yadav (Ph.D. Scholar under supervision of Prof. R. Mahesh and Prof. Vishal Saxena) received Best Poster Award for his work entitled, "Milk derived peptide (BCM7) induced histopathological changes in rat bone" at International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018), at BITS, Pilani, Pilani Campus, November 1-3, 2018.



11. Mr. Karan Kumar (Ph.D. Scholar under supervision of Prof. S. Murugesan) received second prize in the category of technical oral presentation for his paper entitled, "3-Styryl-4H-Chromen-4-One Derivatives as Novel Cytotoxic Agents" at National Conference on Emerging Trends in Computational Drug Discovery organized by KIET Group of Institutions, August 16-17, 2018, Ghaziabad, India.
12. Mr. K V Krishna (Ph.D. scholar working with Prof. R N Saha and Dr. Sunil K Dubey) won received Travel Grant fellowship from Alzheimer's Association for presenting his paper entitled, "Synthesis and Pre-Clinical Neuroprotective Potency of Memantine-Alpha Lipoic Acid Conjugate in Cognitive Disorders" at International Conference (AAIC)-2018, July 22-26, 2018, Chicago, Illinois, United States.
13. Ms. Nisha Sharma (Ph.D. Scholar under supervision of Prof. Anil B Gaikwad) won Travel Grant Award for attending "International Symposium on Molecular Medicine (ISMM-2018)" organized by Department of Molecular Medicine & Biotechnology, December 15 2018, SGPGIMS, Lucknow.
14. Mr. Siddharth Uppal, B. Pharm student (4th year) has been selected to pursue his Thesis (Honors) at Mechanobiology Institute, National University of Singapore (NUS) in Prof. Harry Yu's lab on "Understanding Mechanobiology of cells in response to topographical cues". He will be getting a monthly stipend of 1000S\$ for his contribution to their research group.
15. Mr. Siddharth Uppal, receives Institute Merit Scholarship (40% of academic tuition fee waiver) granted to only top 2% students of the whole batch (~900 students)
16. Mr. Siddharth Uppal (B.Pharm, 3rd year) has been selected for the prestigious Khorana Program for Scholars 2018.
17. Mr. Shakti Nagpal (M. Pharm 4<sup>th</sup> SEM, Pharmaceuticals) received Best oral presentation award for his talk, "Challenges of Drug Development and Regulations in a Global Environment" at 2nd National Conference of Advanced Institute of Pharmacy (NCAIP-2018), April 14, 2018.
18. Mr. Suyash and Mr. Luvkush (B. Pharm students) secured 2<sup>nd</sup> position in poster presentation for their paper entitled, "Bioequivalence - A Statistical approach through R" at 10th NIPER- Raebareli Symposium on Nano based drug therapy for Neurodegenerative Disease, March 27-28, 2018, NIPER - Raebareli.

#### I. SIGNIFICANT NEW EQUIPMENTS/EXPERIMENTAL FACILITY ADDED DURING THE YEAR

1. Syringe-driven microfluidic-based Nanoparticle fabrication System (Dolomite Microfluidics Ltd).
2. Microscope-Primo Star HD (Carl Zeiss)
3. Rotary Evaporator (Heidolph)
4. Parallel Synthesizer (Milestone)
5. C-1000, Touch Cyclor (Bio-Rad)

#### J. DEPARTMENTAL ASSOCIATION

- ◆ In the year 2018, Department of Pharmacy, its students and faculty members, continued their untiring efforts for further betterment and had several achievements and activities during the year including:

**Apogee 2018** This APOGEE, 6 project ideas had been submitted out of which 4 projects were selected for Round 2 of pitching. 03 of these were selected for final presentation during APOGEE. These projects were presented with working models which directly benefitted the students to explore various other fields where pharmacy can be applied. Students from the department also submitted 10 abstracts for Paper presentation out of which 6 qualified for final presentation during the main event.

**Doper's quiz:** Doper's Quiz is an offline quizzing event to test students' logic relating to the field of Pharmacy. Most of the questions were related to the myriad world of narcotics. A total of 40 Teams participated with most of the teams having a maximum of two participants. Registration for the event was done through online form and was done beforehand. Winner was decided based on maximum score from all entries.

**Strategia :** The participants were required to solve a case study and present its solution. The event consisted of 2 rounds. Participation was in the teams of 2-3 students.

**Round 1 –** A small Guesstimate, Crossword puzzle or mini case study was given to each team with appropriate descriptions and clues. Points were awarded based on the approach chosen and the result or the number of questions answered correctly.

**Round 2 -** A Case Study was given to each team. The teams were required to analyze the case study based on various parameters and provide a solution. A time frame was given, after which they were required to present it. Points were awarded for the presentation separately.

The total points of both rounds decided the final winner

**Chai with Profs :** BPS organized an informal welcome ceremony for the new admitted Undergraduate and Masters batch of pharmacy students. The events consisted of introduction to the department faculty, live musical performance from the twins Srijan and Sagar Verma (B.Pharm students) and a Pictionary game which participating groups had formed by a mix of the new students and the faculty.

**World Pharmacist Day Celebrations :** A department level function was organized on September 25, 2018 to celebrate the special occasion. The theme of World Pharmacists Day 2018 was "Pharmacists: your medicines experts." It is meant to emphasize that pharmacists are a trusted source of knowledge and advice, not just for patients, but also for healthcare professionals. Prof. Hemant R Jadhav delivered a talk about the same and there was also a quizzing event.

**Alumni Meet :** The 1978 batch came down to BITS for a reunion and were happy to interact with the current students and share their experience and knowledge. They detailed how the foundation they received at BITS helped them establish successful careers in diverse fields such as academia, industry, consultancy etc.,

**Campus Health Communique :** BITS Pharmaceutical Society published its 7th edition of Healthcare Newsletter with active involvement of Editorial Team under the guidance of Dr. Atish T. Paul. Apart from this, The Pharmaceutical Society also organized farewell ceremony and dinner twice during the year (in both semesters) for the graduating students.

Research activities of Department increased further in terms of sponsored projects, departmental projects, number of publications and conference presentations and number of doctoral students. During the year faculty members of department completed research projects worth Rs 99.17 lakhs. Currently research projects worth Rs. 478.768 lakh are being carried out by the department and additionally projects worth Rs 191.35 lakhs have been sanctioned. Financial support from the various government agencies and industries have boosted the research activities of the faculties and enabled procurement of hi-end equipments. The experiences acquainted by the Pharmacy department Faculty Members and research scholars by visiting various conferences and workshops were shared with the staff and students of the department. The department also drafted a PET POLICY, guidelines for pet owners and stray dogs residing inside the BITS, Pilani, Pilani campus which were brought into effect from on October 10, 2018.

## B1.10.13 Department: Physics

Number of faculty members (as on 31 December 2018): 20

HOD: Prof. Raj Kumar Gupta

Contact details: raj@pilani.bits-pilani.ac.in, 01596-515288

Number of PhD Scholars: 23 (including 02 part-time student)

Ph.D. Thesis Submitted during the year: 00

## A. SPONSORED RESEARCH ACTIVITIES &amp; FUNDING

1. Ongoing projects: 11
2. Projects Sanctioned during the year: 01
3. Projects completed in the year: 00
4. Consultancy Projects completed this year: 00

## Ongoing Projects

S.N	PI	Co-PI	Title of the Project	Amount (lacs)	Funding Agency	Submitted on	Current Status
1.	Dr. Anshuman Dalvi		Investigations on Li-ion conducting glass-ceramics containing NASICON structured nano crystallites	37.65	SERB	2015	Ongoing
2.	Dr. Anshuman Dalvi		EXAFS Investigations on Polymer nanocomposites (2016-2019)	10.35	DAE CRS		Ongoing
3.	Dr. R. Choubisa		Theoretical Study of Electron impact double ionization of atoms and molecules	22.63	SERB	27-06-2016	Ongoing
4.	Dr. M. Mishra		Studies on Quarkonium Suppression in Asymmetric Nuclear Collision at LHC	16.03	SERB	27-06-2016	Ongoing
5.	Dr. J.N. Bandyopadhyay	Dr. T.G. Sarkar	Dynamical and Topological Properties of Floquet Systems: A comparative study of perturbative schemes	19.11	SERB	31-07-2016	Ongoing
6.	Dr. Amol R. Holkundkar	Dr. J.N. Bandyopadhyay	Generation and Characterization of Attosecond Pulses with Specific Polarization and its Applications	19.70	SERB	31-07-2016	Ongoing
7.	Dr. Navin Singh		Statistical Mechanics of biopolymers in confined geometry	23.00	SERB	2018	Ongoing
8.	Dr V. Manjuladevi		Electro-optical response of Nematic Liquid Crystals doped with nanorods	38.5	SERB	2017	Ongoing
9.	Dr. K. K. Gupta Gupta	Dr R K Gupta	Soft Computing framework based Integrated Multi Sensor Array for Water Quality Assessment: Targeting Fluoride as major	49.00	DST, WTI	2017	Ongoing

S.N	PI	Co-PI	Title of the Project	Amount (lacs)	Funding Agency	Submitted on	Current Status
			parameter				
10	Dr. Raj Kumar Gupta	Dr. Manjuladevi V	Development of surface plasmon resonance instrument with a novel optical design: 2 <sup>nd</sup> Phase	56.15	DST, IDP	2017	Ongoing

## Projects Sanctioned During 2018

PI	Co-PI	Title of the Project	Amount (Rs./ lacs)	Funding Agency	Submitted on	Current Status
Prof. Debashis Bandyopadhyay		Substrate supported transition metal doped alkaline earth clusters as hydrogen storage materials and their applications in hydrogen fuel cell	21.00	DST-SERB	2017	Ongoing

Projects Completed in the year 2018 : NIL

## B. PUBLICATIONS :

## (i) Papers Published in refereed journals:

1. R. J. Sharma, T. Guha Sarkar, J. N. Bandyopadhyay, Floquet analysis of a fractal-spectrum generating periodically driven quantum system, *Phys. Rev. E*, Vol. 98, 042217 (2018).
2. T. Mishra, A Pallaprolu, T Guha Sarkar, J N Bandyopadhyay, Floquet topological phase transitions in a kicked Haldane-Chern insulator, *Physical Review B*, Vol. 97, 085405 (2018).
3. Predictions for measuring the cross power spectrum of the HI 21-cm signal and the Lyman- $\alpha$  forest using OWFA, A. K. Sarkar, S Bharadwaj, Tapomoy G Sarkar - *Journal of Cosmology and Astroparticle Physics*, 05, 051, (2018)
4. Ultrathin film of carboxylated graphene at air-water and air-solid interfaces, Monika Poonia, V. Manjuladevi, R. K. Gupta, *Surfaces & Interfaces (Elsevier)*, Vol 13, Pg 37-45 (2018). DOI: 10.1016/j.surfin.2018.07.007.
5. Detection of cadmium ion in aqueous medium by simultaneous measurement of piezoelectric and electrochemical responses, Parul Taneja, V. Manjuladevi, K. K. Gupta, R. K. Gupta, *Sensors & Actuators B (Elsevier)*, Vol 268, Pg 144-149, 2018. DOI:10.1016/j.snb.2018.04.091.
6. Switching from sky blue to deep green fluorescent Zn(II) complexes for OLEDs applications, Raja Lakshmanan, N C Shivaprakash, S Sindhu, *Journal of Luminescence*, Volume 196, April 2018, Pages 136-145
7. Orange Fluorescent Ru(III) Complexes Based on 4'-Aryl Substituted 2,2':6',2''-Terpyridine for OLEDs Application, Raja Lakshmanan, N. C. Shivaprakash, S. Sindhu, *Journal of Fluorescence*, PP1-10, 2017
8. Synthesis of solution-processable poly (3,4 propylenedioxythiophene) nanobelts for electrochromic device applications, I Siju Cherikkattil Raghavanan. Channegowda Shivaprakash, Sukumaran Nair Sindhu, *Optical Materials*, Volume 73, November 2017, Pages 56-63
9. "Energetic electron bunch generation by laser interaction with xenon clusters", P. Venkat and A. R. Holkundkar *Phys. Plasmas*, 25, 103112 (2018).
10. "Chirp assisted ion acceleration via relativistic self-induced transparency", S. Choudhary, and A. R. Holkundkar, *Phys. Plasmas*, 25, 103111 (2018).
11. "Transition from wakefield generation to soliton formation", A. R. Holkundkar, and G. Brodin, *Phys. Rev. E*, 97,043204 (2018).
12. "Interaction of xenon clusters with intense sub cycle laser pulses", P. Venkat and A. R. Holkundkar *Phys. Plasmas*, 23, 123106 (2016).
13. "Focusing effects in laser-electron Thomson scattering", C. Harvey, M. Marklund, and A. R. Holkundkar, *Phys. Rev. Accel. Beams*, 19, 094701,2016.

14. "Efficient ion acceleration by relativistic self induced transparency in subwavelength targets", S. Choudhary and A. R. Holkundkar, *Euro. Phys. J D*, 70, 234 (2016).
  15. Oxidation Mechanism of Thin Cu Films: A Gateway Towards the Formation of Single Oxide Phase, S. Choudhary, J. V. N. Sarma, S. Pande, S. Ababou-Girard, P. Turban, B. Lepine, and S. Gangopadhyay, *AIP Adv.* 8, 055114 (2018).
  16. Au/TiO<sub>2</sub> Nanotubes/Ti Based Solid State Vapor Sensor: Efficient Sensing in Resistive and Capacitive Modes", P. Bindra, S. Gangopadhyay and A. Hazra, *IEEE Transactions on Electron Devices* 65, 1918 (2018)
  17. P. Das, S. Ganguly, S. Mondal, U. K. Ghorai, P. P. Maity, S. Choudhary, S. Gangopadhyay, S. Dhara, S. Banerjee, and N. C. Das, Dual doped biocompatible multicolor luminescent carbon dots for bio labeling, UV-active marker and fluorescent polymer composite, *Luminescence*. 33, 1136 (2018)
  18. Zinc and nitrogen ornamented bluish white luminescent carbon dots for engrossing bacteriostatic activity and Fenton based bio-sensor, P. Das, S. Ganguly, M. Bose, S. Mondal, S. Choudhary, S. Gangopadhyay, A. K. Das, S. Banerjee, and N. C. Das, *Mat. Sci. Engg. C* 88, 115 (2018).
  19. Natural saponin stabilized nano-catalyst as efficient dye-degradation catalyst, *Nano-Structures & Nano-Objects* S. Ganguly, S. Mondal, P. Das, P. Bhawal, T. K. Das, M. Bose, S. Choudhary, S. Gangopadhyay, A. K. Das, N. C. Das, 16, 86 (2018)
  20. Insights of the role of shell closing model and NICS in the stability of NbGe<sub>n</sub> (n = 7-18) clusters: A first principle investigation, Ravi Trivedi and Debashis Bandyopadhyay, *Journal of Materials Science*, 2019 (54) 515-528
  21. Evolution of electronic and vibrational properties of M@X<sub>n</sub> (M = Ag, Au, X = Ge, Si, n=10, 12, 14) clusters: a density functional modeling, Ravi Trivedi and Debashis Bandyopadhyay, *Journal of Materials Science*, 2018 (53)8263–8273
  22. "(e,2e) Impact Ionization Processes for Surface Science" by R. Choubisa, D. Sébilleau, J. Xu and C. R. Natoli in *Multiple Scattering Theory for Spectroscopies – A Guide to Multiple Scattering Computer Codes* edited by D. Sébilleau, K. Hatada and H. Ebert (ed.), Springer, 2018, pp. 275-280.
  23. "A Multiple Scattering Approach to the EELS Cross-Section" by D. Sébilleau, J. Xu, R. Choubisa and C. R. Natoli in *Multiple Scattering Theory for Spectroscopies – A Guide to Multiple Scattering Computer Codes* edited by D. Sébilleau, K. Hatada and H. Ebert (ed.), Springer, 2018, pp. 325-330.
  24.  $\psi(2S)$  enhancement in p–Pb collision as an indication of QGP formation at the LHC, S. Ganesh, Captain R. Singh, and M. Mishra, *J. Phys. G: Nucl. Part. Phys.* 45 035003 (2018).
  25. "Mechanical milling assisted synthesis of novel LiTi<sub>2</sub>(PO<sub>4</sub>)<sub>3</sub>-glass-ceramic nanocomposites" Neelakshi Sharma and Anshuman Dalvi *Journal of Non-Crystalline Solids (Elsevier)* Volume 483, 1 March 2018, Pages 126-133
  26. Star Formation Toward the H II region IRAS 10427-6032 by Vaidya, K., Bhattacharya S., Panwar V., Samal, M. R., Chen, W.-P., Ojha, D. K. in *New Astronomy*, Volume 63, pg 27-37 (2018)
- (ii) Papers Published as a conference proceedings:
1. Magnetic behavior in Cr<sub>2</sub>@Ge<sub>n</sub> (1 ≤ n ≤ 12) clusters: A density functional investigation, Kapil Dhaka, Ravi Trivedi, Debashis Bandyopadhyay, *AIP Conference Proceedings*, (2014), doi: 10.1063/1.4873009 1498, 1591
  2. "Detection of cadmium ion in water using nanocomposite of carbon nanotubes and anionic polymer", Parul Taneja, V. Manjuladevi and RK Gupta, *AIP Conference Proceedings*, Vol 1953, 030098 (2018). DOI:10.1063/1.5032433.
  3. "Functional layer of single walled carbon nanotubes, polyacrylic acid and their nanocomposites for cadmium ion sensing in aqueous medium", Parul Taneja, V. Manjuladevi, KK Gupta, RK Gupta, 3rd International Conference on Soft Materials, MNIT, Jaipur, 9-14 December, 2018.
  4. "Nanofibers of triphenylene based discotic liquid crystals", Ashutosh Joshi, V. Manjuladevi, S. Kumar, R. K. Gupta, 3rd International Conference on Soft Materials, MNIT, Jaipur, 9-14 December, 2018.
  5. "Effect of functionalized silver nanoparticles on the dielectric and conductivity measurements of nematic liquid crystals" Shivaraja SJ, R K Gupta, Sandeep kumar and Manjuladevi V, 25<sup>th</sup> National conference on liquid crystals, Organized by centre of materials sciences, University of Allahabad, Dec 19-21, 2018.
  6. Sequential Quarkonium Production via Recombination in Heavy-Ion Collisions, Captain R. Singh, S. Ganesh, M. Mishra (*Birla Inst. Tech. Sci.*). 2018. 6 pp. Published in *Springer Proc. Phys.* 203 (2018) 479-484

7. Thin Cu film resistivity using four probe techniques: Effect of film thickness and geometrical shapes, S. Choudhary, R Narula, and S. Gangopadhyay, AIP Conf. Proc. 1953, 100054 (2018).
8. Zinc Oxide Nano-structures: From Nano-Wall to Nano-Rod Growth Morphology, S. Choudhary, and S. Gangopadhyay, AIP Conf. Proc. 1989, 20007 (2018).
9. Growth and characterization of single phase Cu<sub>2</sub>O by thermal oxidation of thin copper films, S. Choudhary, J. V. N. Sarma, and S. Gangopadhyay, AIP Conf. Proc. 1724, 020116 (2016).

#### C. CONFERENCES ATTENDED/ PAPERS PRESENTED:

S.N.	Title of paper	Authors	Name of conference	Venue & Date of conference
1.	Upsilon 1S and 2S suppression in p-Pb and Pb-Pb collisions at LHC: Centrality and Transverse Momentum Dependence	Madhukar Mishra	Present a paper in an International Conference (Hard Probes 2018)	Aix-Les-Bains, France, Organized by CERN, Switzerland, 30 Sep. 2018 - 5 Oct. 2018
2.	Bottomonium 1S and 2S suppression in p-Pb and Pb-Pb collisions at LHC: Centrality and Transverse Momentum Dependence	Madhukar Mishra	DAE-BRNS High Energy Physics Symposium 2018	IIT Chennai, 10 Dec. 2018 - 14 Dec. 2018

#### D. INVITED TALKS GIVEN BY BITS FACULTY

- II. "Ultrathin Films at Interfaces: Challenges and Applications", R. K. Gupta, International Workshop on Soft Materials and Devices, Jammu Central University, Jammu, 21-25 March 2018.
- III. "Nanocomposites of Liquid crystals", V. Manjuladevi, International Conference on Nanomaterials, MGU, Kottayam, 11-13 May 2018.
- IV. "Ultrathin films of nanomaterials and application", R.K. Gupta, International Conference on Nanomaterials, MGU, Kottayam, 11-13 May 2018.
- V. "Stability of DNA molecule in conical shaped cellular environment", Navin Singh, National Conference on Advances in Spectroscopic Techniques and Materials (ASTM-2018), IIT-ISM Dhanbad, 14-16 March 2018.
- VI. "Li<sup>+</sup> ion NASICON-Glass-Ceramics Prepared by Milling Assisted Synthesis Route: Assessment of Structure and Enhanced Electrical Transport" by Anshuman Dalvi in International Meeting on Energy Storage Devices and Industry Academia Conclave, IIT Roorkee December 10-12, 2018.
- VII. "DNA translocation through nanopore", Navin Singh, Puri Polymer Conference 2018, Institute of Physics, Bhubaneswar, 12-14 December 2018.

#### E. INVITED TALKS ARRANGED IN THE DEPARTMENT

1. Dr Yogesh Kumar, Assistant Professor, ARSD college, Delhi University was invited by the department. He delivered invited lecture on "Background, Fundamental Understanding and Progress in Electrochemical Capacitors" on 29th December, 2018.
2. Prof Deshdeep Sahdev, Professor (superannuated) of IIT Kanpur and CEO of Quazar Technologies was invited in March 2018. He delivered a talk on a topic "Was our Cosmic Dawn Extra – Dimensional?"
3. Dr. K. L. Kandoi, Alumnus (1966), Managing Director, Quaser Electronics Pvt Ltd, 1st Oct-29th Nov 2018
4. Prof. Didier Sébilleau, Département Matériaux-Nanosciences, Scientist, To work with Rakesh Choubisa's group including joint PhD supervision, Institut de Physique de Rennes, 17th Oct-20th Oct 2018
5. Prof. Wen-Ping Chen, National Central University, Taiwan, Professor, 26th November 2018
6. Prof CS Shastry, Amrita University, Adjunct Professor, 27-29 Dec 2018.

#### F. CONFERENCES, SEMINARS & WORKSHOPS CONDUCTED:

1. Regional Science Congress (Jaipur region), 13-17 November, 2018 in association with Jawahar Novoday Vidyalaya, Kajra, Jhunjhunu.

## G. AWARDS AND RECOGNITION WON BY FACULTY AND STUDENTS:

Faculty: NIL

Students: NIL

## H. BOOKS PUBLISHED/EDITED /BOOK CHAPTERS DURING THE YEAR:

1. "Surface Plasmon Resonance Based Sensors", RK Gupta, Devanarayanan VP, V. Manjuladevi, in the book titled "Microscopy Applied to Material Science & Life Science, Publisher: Apple Academic Press, USA, Editors: A. V. Rane, S. Thomas, K. Nandakumar, K. Kanny; ISBN: 9781771886727.

## I. National and International Collaborations

Department has several collaborations with different national and internally reputed institutes. Some of the institutes are listed as follows. A short notes on the selective collaborative work with the research outputs are also described.

- a) Bengal Engineering and Science University, Shibpur, Howrah, West Bengal, India.
- b) RRI, Bangalore
- c) CEERI, Pilani
- d) Physical Research Laboratory, Ahmedabad.
- e) University Illinois at Urbana Champaign
- f) Tata Institute of Fundamental Research
- g) Aryabhata Research Institute of Observational Science, Nainital
- h) Swiss Federal Institute of Technology Lausanne(EPFL), Switzerland
- i) University of Bremen, Germany
- j) University of Nottingham, UK
- k) Bhabha Atomic Research Centre, Mumbai
- l) Jain University, Bangalore
- m) Missouri State university Springfield, USA
- n) Universite de Rennes (France)
- o) LNF, INFN, Frascati (Italy)
- p) Institute of Physics, Academy of Sciences of the Czech Republik, Prague
- q) Department of Physics, Banaras Hindu University, Varanasi
- r) Institute of Physics, Bhubaneswar
- s) National Central University, Taiwan
- t) University of Illinois at Urbana-Champaign, USA
- u) Warsaw University of Technology, Poland
- v) Indian Institute of Technology, Roorkee
- w) VECC, Kolkata
- x) IISER, Pune
- y) Chalmers University of Technology, Gothenburg, Sweden
- z) Indian Institute of Technology Kharagpur
- aa) National Centre for Radio-Astrophysics Pune
- bb) Max-Planck Institute for the Physics of Complex Systems, Dresden, Germany
- cc) UGC-DAE-CSR Indore
- dd) Umeå University, Sweden
- ee) Max-Planck Institute for the Physics of Complex Systems (MPI-PKS), Dresden, Germany
- ff) Delhi University, Delhi

## DISCIPLINE ASSOCIATION WORK HIGHLIGHTS

1. **Astronomy Club:** The department houses an astronomical observatory that is equipped with two telescopes, a 6" refracting telescope, and an 11" Celestron's Schmidt-Cassegrain telescope. The observatory also has a CCD camera which can be used with the 11" telescope to obtain long-exposure, high quality images, of nebulae and star-clusters. There are 30-40 student members of the Club, who are from different disciplines and years. Astro-club makes a regular use of both the telescopes to observe celestial objects on a fortnightly basis. In addition, they organize following activities:

1. Public Observation Sessions
2. Sky Watch and Astronomy Sessions for BITS Students
3. Sky Watch and Astronomy Sessions For School Kids
4. Space Week Celebration
5. Astronomy Workshop During APOGEE and OASIS

2. **Physics Association:**

All students and faculty are default members of B5 (Physics) Association at BITS Pilani. A certain students are selected as post-holders to plan and carry out different activities of the association. A faculty member of the department is appointed to oversee the activities of the association. Currently, Prof. V. Manjuladevi is the faculty-in-charge of the association. Some of the yearly activities of the association are as follows:

**APOGEE Projects** - The association invites entries for physics projects for participation in the BITS technical festival, APOGEE. It then requests a team of faculty from the department to select the good entries for the participation and then helps the individuals/teams in show-casing these projects during the festival.

**Teacher's Day Celebration** – Since last two years the association celebrates teacher's day for the physics faculty. A program including tributes to faculty, some games among the team consisting of faculty and students, are planned to felicitate the faculty.

Physics Association in association with Makeintern and E-Cell (IIT Kharagpur) had arranged a Zonal Training workshop on the topic of Nanomaterial and Nanocomposites on 17th and 18th November 2018. Dr. Kaushal Kumar, who is a young Scientist in the field of Nanocomposites and Nanomaterials was the resource person and more than 20 first degree students attended this workshop, out of which 5 students have been selected for the next round to be held in IIT Kharagpur.

3. In APOGEE 2018, Physics Society organized following events:

- **Demonstration of Ruben's Tube:** Based on the concept of normal modes of oscillations, this exciting set-up making use of cooking gas made to pass through in a pipe produced "dancing flames" at nodes and anti-nodes.
- **Demonstration of Hydro-levitation:** Using a simple "swimming pool" meant for toddlers, a pump to throw water as high as possible, and a table-tennis ball the principle of hydro-levitation was demonstrated
- **Demonstration of optical arrangement of Gravitational Wave Detection:** Using the Michelson Interferometer experimental set-up, phenomenon of interference, particularly change in pattern in response to a sound-wave – a clap, was demonstrated.

## FACULTY DEVELOPMENT, INTERNATIONAL COLLABORATION & INDUSTRY IMMERSION

### International Collaborations

- a) Umeå University, Sweden
- b) Max-Planck Institute for the Physics of Complex Systems (MPI-PKS), Dresden, Germany
- c) Dr. Rakesh Choubisa's group has an active collaboration with Dr. Didier Sebilleau's group based at University de Rennes1 in France. Dr. Choubisa and his two PhD students visited Dr. Sebilleau's group in the last summer regarding collaboration. Dr. Sebilleau also visited for 2 months during Oct. and Nov. 2018 to Pilani for this. Dr. Choubisa and Dr. Sebilleau are also supervising one PhD student of BITS, Pilani.
- d) Dr. Choubisa and Dr. Sebilleau extend their collaboration with Dr. Ghanshyam Purohit and Dr. Prithvi Singh from Udaipur and Dr. C. Champion from the University of Bordeaux (France) (they jointly submitted Indo-French bilateral project to CEFIPRA recently).



## B1.11 DIVISION / UNIT / CENTER-WISE ACTIVITY HIGHLIGHTS

## Faculty Affairs Division (FAD)

Faculty Affairs Division (FAD) with its office in Pilani Campus is responsible for implementation of all Institutional policies related to faculty, across all BITS campuses at Pilani, Goa, Hyderabad, Dubai and Off-Campus. The division deals with functions related to recruitment, promotions, retirement, extensions, appraisals, terms and benefits of faculty. The activities of the Division for the year, in brief, are given below:

1. Faculty Recruitment: Faculty Recruitment has been the prime activity of the Division. It is a continuous process carried round the year, where departments are involved in decision making process, whereas recruitment related logistics are carried out by partnering with a HR outsourcing company, PeopleStrong. Details of the offers made towards faculty positions, joining and acceptance details for on campus and off campus, for the year, are given below.
2. ON-CAMPUS RECRUITMENT IN 2018

Position	Offered	Joined				Declined				Yet to Join				
	University	Pilani	Dubai	Goa	Hyderabad	Pilani	Dubai	Goa	Hyderabad	Pilani	Dubai	Goa	Hyderabad	Not chosen yet
Professor	*2			*1	*1									
Associate Professor	8(4+#1+*3)	1		1+*1	1		*2		1					#1
Assistant Professor	145(93+#1+*38+^13)	26 (19+*7)	6 (1+*5)	22 (18+*4)	28 (17+*11)	10 (6+^4)	11 (1+*6+^4)	10 (5+*2+^3)	8 (3+*3+^2)	8	3	2	10	#1
Asst Prof -AL 10	4(3+^1)		1+^1			2								
Visiting Asst. Prof.	6(5+*1)	2		2					*1		1			
Grand Total	165(105+#2+*44+^14)	94(63+*30+^1)				45(18+*14+^13)				24+*2				

^ Offered in 2016, status in 2018

\* Offered in 2017, status in 2018

# Yet to respond in 2019, offered in 2018

## 3. OFF-CAMPUS RECRUITMENT

Position	Total (offered)	Joined (details)						Declined (details)						Yet to join (details)					
		Delhi	Pune	Chennai	Hyderabad	Bangalore	Mumbai	Delhi	Pune	Chennai	Hyderabad	Bangalore	Mumbai	Delhi	Pune	Chennai	Hyderabad	Bangalore	Mumbai
Professor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Associate Professor	5+1*	2	-	-	-	-	1*	-	-	-	1	1	-	-	-	1	-	-	-
Assistant Professor	4+1*	2	1*	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Lecturer	3	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Instructors																			
Total	12+2*	8+2*						3						1					

\*offered in 2017, status in 2018

4. Faculty Performance Appraisals: Combined Performance Appraisal for 2016-17 and 2017-18 is in progress. University Wide data has been compiled. Contributions in three key performance areas,

namely:- (i) teaching, (ii) research, and (iii) institutional contribution will be assessed. The assessments will include self-appraisal, appraisal by the Head of the respective departments in consultation with the respective faculty, and/ or Divisional Dean, which will then be followed by a cross campus committee assessment and then by university level committee.

5. Promotions: In the year 2018, promotions were made for faculty at Pilani, Goa, Hyderabad and Dubai campuses (99) and Faculty at Off-Campus (2). The following table illustrates the details of promotions:

Campus	Recommendations for Promotion as Associate Professor	Recommendations for Promotion as Professor
Pilani	34	7
Goa	21	11
Hyderabad	17	6
Dubai	3	-
Off-campus	-	2
Total	75	26

6. Change of superannuation age from 60 to 65: Review in Progress.
7. Industry Immersion: The scheme to provide exposure of faculty, who do not have prior industry experience, to an industry in their area of interest with a view to provide them with an opportunity to gain first-hand exposure to processes undertaken by industries in design, manufacturing, marketing, logistics; gain an understanding of how theory learnt in classrooms is translated into practice on the job floor; gain an understanding of technical challenges that industries face in respect of improved design, scaling up their operations, impact on environment, manpower, etc. The following Faculty from across four campuses visited the industries as per details below:

S.No	PSRN	Name of Faculty Member	Campus	Department	Industry Visited	Duration of the Visit
1	H0230	N Suresh Kumar Reddy	Hyd	ME	Mahindra two wheelers Limited, Pithampur.	19/05/2018 to 17/07/2018
2	H0417	Runa Kumari	Hyd	EEE	National Aerospace Laboratories (NAL), CSIR, Bangalore	21/05/2018 to 14/07/2018
3	D1041	R. Swarnalatha	Dubai	EEE	CSIR- Central Scientific Instrumentation Organisation, Chandigarh,	02/07/2018 to 04/08/2018

8. Exposure of Faculty to Universities Abroad: Under this scheme, BITS supports faculty members to spend a few weeks at a University abroad (during vacation period). The scheme supports those faculty members who have not visited foreign universities earlier or in the near past. During such exposure, it is expected that faculty members will (among others): (i) gain first-hand exposure to current/latest advances in research, etc., (ii) gain an understanding of lab resources required to initiate research or to use (or to program) equipment, (iii) gain an understanding on how classroom- or lab-based instruction is organized or imparted, AND/OR, (iv) gain an understanding of research methodology, cross-disciplinary collaboration, or collaboration across institutions, etc. Seven faculty from four campuses- Pilani, Goa, Hyderabad and Dubai utilized this opportunity, as per details given below:

S.No	PSRN	Name of Faculty Member	Campus	Department	University Visited	Duration of the Visit
1	P1958	Abhijit Asati	Pilani	EEE	University of Virginia, USA	20.05.2018-20.07.2018
2	P3122	Rajeev Taliyan	Pilani	Pharmacy	Taipei Medical University, Taiwan	16.05.2018-17.07.2018
3	P3139	Shilpi Garg	Pilani	Bio. Sc.	University of Melbourne, Australia	15.05.2018-31.07.2018
4	G0122	Ranjan Dey	Goa	Chemistry	University of Cambridge, UK	06.06.2018-22.07.2018
5	G0123	Reena Cheruvalath	Goa	HSS	University of Tokyo, Japan	25.05.2018-14.07.2018

S.No	PSRN	Name of Faculty Member	Campuses	Department	University Visited	Duration of the Visit
6	G0381	Vijayashree Nayak	Goa	Bio. Sc.	University of Texas, MD Anderson cancer center USA	17.05.2018-30.07.2018
7	G0010	Neena Goveas	Goa	CSIS	University of North Dakota Grand Forks, ND	25.05.2018-25.07.2018
8	G0082	Veeky Baths	Goa	Bio. Sc.	University of Leeds, UK	18.05.2018-10.07.2018
9	H0103	Bivudutta Mishra	Hyd	Maths	CERN, Switzerland	20.05.2018-16.06.2018
10	D1042	K.K.Singh	Dubai	Physics	Beckman Institute, University of Illinois at Urbana Champaign, USA	20.06.2018-20.08.2018

9. Apart from attracting and selecting talented and competent people, the division is also intensely focused on retaining the talent. Discussions on several staff welfare measures, relook on compensation and benefits, policies related to career growth and related guidelines, health and family welfare, housing, rewards and recognitions are underway.
10. To understand the reasons for faculty attrition, exit interviews have been initiated in all the campuses. HR Team of respective campus has assisted FAD in this process.

### Practice School Division

#### University -Industry Linkages

An important aspect of education at BITS is its institutionalized linkages with the world of work. The Institute attaches great importance to the University-Industry Linkages and gives mutually reinforcing thrust to it through various avenues like Practice School (PS), Work Integrated Learning Programmes (WILP), Technology Innovation Centre (TIC) and off-campus Ph.D.

#### Practice School Programme

All integrated first degree and higher degree programmes of the Institute provide for a Practice School option. The past statistics show that almost all the students admitted, opt for this programme. During the calendar year 2018 the Practice School programme was operated at 589 stations, with 13 stations hosting both Practice School-I (PS-I) and Practice School-II (PS-II), accommodating 4371 students and 159 faculty members. Categorization of PS stations is given below:

S.No.	Categories of Organizations	No. of Organization in	
		PS-II & PS for Higher Degree	PS-I
1.	Banks and other Financial Institutions	56 (32)	3 (2)
2.	Design, Development, Consultancy and Software Organization.	280 (220)	83 (48)
3.	National Research Laboratories and other Research centers	18 (21)	37 (37)
4.	Production, Manufacturing and Public Work Units	35 (42)	75 (106)
5.	Publishing Houses, News Agencies and Museums	8 (5)	7 (4)
	Total	397 (320)	205 (197)

In 2018, an integrated practice school allotment for 4371 students was carried out across Pilani, Goa and Hyderabad campuses. The statistical details of the centre-wise distribution of students and faculty at PS-I stations are given in Annexure A -7 followed by the details of the Operational Statistics of PS-II and PS for higher degree in Annexure A -8. Growth statistics of PS-I, PS-II and PS for higher degree are given in AnnexureA -9, while facilities available at various PS-II stations are given in Annexure A -10.

Following is the breakup of students who were registered in PS-I, PS-II & PS for Higher Degree:

PS-I	Summer Term 2017-2018	(2189)	2119
PS-II	II Semester 2017-2018	(845)	787
	I Semester 2018-2019	(1175)	1204
PS for Higher Degree			
	II Semester 2017-2018	(294)	261
	I Semester 2018-2019	(00)	00
	Total	(4503)	4371

Note: -The figures shown in brackets relate to the year 2017.

## PS-II Assignments: Institute's Contribution to Industrial Development

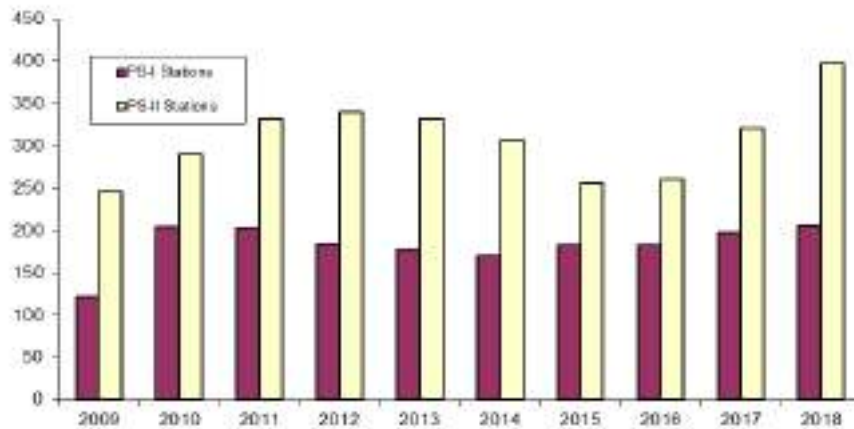
Apart from developing skills in professional judgment, data-handling, documentation, decision making ability, etc., in students, the PS-II assignments also relate to real-life problems of the host organizations. PS-II assignments listed in Annexure A -11 were completed by the final year students at their respective PS-II stations during the year 2018. These assignments directly

Contribute to the requirements of industrial R & D by fulfilling the ongoing production, modernization, design, development and research needs of the participating industries.

During the year under review 2119 students of Pilani (902), Goa (573) & Hyderabad (644) campuses accompanied by 103 faculty members attended Practice School-I and 2252 students attended Practice School-II. The entire Practice School-II operations were supervised by 56 faculty members residing at the respective locations. For the year 2019, 209 dual degree students have exercised their option of Practice School for both the degrees.

In appreciation of the contribution made by our students towards the professional well-being of the organizations, a stipend/out-of-pocket allowance is paid to them by the organizations. The amount of stipend/out-of-pocket allowance has over the years increased, and today the maximum amount paid is Rs.100,000/- p.m. at American Express India, Bangalore. The average stipend is around Rs.29,000/- p.m. per student. In addition, other facilities like accommodation, subsidized lunch, to & fro travel, etc. are also provided by some of the organizations. Students are paid TA & DA as per the rules of the organization. All overseas organizations pay for to & fro air travel and health insurance in addition to stipend.

During the year under review, the PS activities grew further with the introduction of 199 new PS-II stations (Table 1) and out of pocket allowance was increased at 54 PS-II stations (Table 2).



7Table 1

PS-II Stations Added during the Year 2018

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)
Aurangabad		
1	Bajaj Auto	20000
Bangalore		
2	A.T.E. Enterprises Private Limited, Research & Development	20000
3	Acko General Insurance Ltd.	10000
4	Aditya Auto products & Engg (I) .P.Ltd.	20000
5	Aditya Birla Group -Data and Analytics	30000
6	Adobe Systems	50000
7	American Express - Big Data Labs (BDL)	100000
8	American Express - Risk Information Management Capabilities (RIM- C)	30000
9	Analog Devices India Pvt Ltd -Quality management	25000
10	Analog Devices India Pvt. Ltd.	25000

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)
11	Auquan	35000
12	Bank of Hodlers	20000
13	Bosch Research and Technology center	30000
14	Cadence Design Systems India Pvt Ltd. - CAD Software	18000
15	Cloudcherry Analytics Pvt Ltd	30000
16	Cohesity Storage Solutions India Pvt. Ltd.	90000
17	Dell R&D	25000
18	Deloitte Consulting US India	25000
19	Fidelity Investments	50000
20	Flipkart Analytics	50000
21	Flipkart Internet Services Pvt. Ltd	50000
22	Frost & Sullivan India Pvt. Ltd.	18000
23	Goldman Sachs - IT	25000
24	Goodera (NextGen PMS) - IT	65000
25	Groww	42000
26	HAPPAY (VA Tech Ventures Pvt Ltd.)	40000
27	HCL Technologies	18000
28	HealthCubed	15000
29	Here Maps	30000
30	Holiday IQ- Tech	20000
31	IBM India Software Group	30000
32	IBM Security - Fiberlink	30000
33	Ingersoll Rand India Ltd	15000
34	InMobi - Global Outreach	25000
35	InMobi - Market, Sales Delivery	25000
36	InMobi - Software Development	35000
37	Kristal.AI	40000
38	Kubric.io	25000
39	Lavelle Networks	30000
40	Lowes India	25000
41	MediaTek Bangalore Pvt. Ltd.	33000
42	Microsoft india Development center	45000
43	MoEngage India Pvt. Ltd.	50000
44	NetSkope Software India Pvt. Ltd.	40000
45	Nutanix Technologies India Pvt Ltd - Data Science	90000
46	Nutanix Technologies India Pvt Ltd - MTS	90000
47	Oracle India Pvt Ltd.	35000
48	Postman	40000
49	Rakuten- Artificial Intelligence	40000
50	Rakuten Inc	40000
51	Rakuten-Human resources& operations and recruitment	40000
52	Rakuten-Mobile App	40000
53	Reliance Jio	35000
54	Robert Bosch Engineering & Business Solutions Private Limited	10000

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)
55	Samsung R &D Institute - CP (Communication Protocol)	35000
56	Samsung R &D Institute - Intelligent Services	35000
57	Samsung R &D Institute - Networks	35000
58	Samsung Semiconductor India R&D Center	35000
59	SanDisk	35000
60	STAR TV	65000
61	Sun Mobility	15000
62	Supply Basics - Business	15000
63	SupplyBasics - E-Commerce	25000
64	Tejas Networks	25000
65	Texas Instruments (I) Pvt. Ltd - Systems	40000
66	Thinkerbell Labs - Electronics	25000
67	Thinkerbell Labs - People Operations	22500
68	Thorogood	25000
69	Truecaller	40000
70	Udhyam Learning Foundatation	20000
71	Wealth India Financial Services Pvt. Ltd	30000
72	Zinnov Management Consulting Pvt. Ltd (IT Project)	30000
73	Zynga Game Network India Pvt. Ltd.	35000
Chennai		
74	Agarwals Healthcare Limited	25000
75	Apollo Tyres Ltd. Advanced Engineering centre	25000
76	Belief Systems +	12000
77	Crigloo	30000
78	Ericsson Global India Pvt. Ltd.	35000
79	FreshWorks Inc	25000
80	Frost & Sullivan	18000
81	Healthcare Technology Innovation Centre (HTIC)	10000
82	Pfizer Ltd.	12500
83	UST Global +	10000
84	Wealth India Financial Services Pvt. Ltd.	30000
85	India Mart	20000
Cochin		
86	UST Global - Business Domain	20000
87	UST Global - Cochin	20000
Dahej		
88	SRF Ltd	18000
Delhi		
89	DMI Finance Private Limited	20000
90	Goodera (Next Gen PMS) (Non IT)	40000
91	Jarvis Technology & Strategy Consulting Pvt Ltd	30000
92	LEA Associates	10000
93	PricewaterhouseCoopers (PWC)	40000

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)
94	Sattva Media and Consulting Pvt Ltd	20000
95	Vision India Foundation	10000
Gandhinagar		
96	Amrut International	8000
Germany		
97	FATH GmbH Components	1150 (Euro)
Goa		
98	Anant Infomedia Pvt. Ltd.	25000
99	IFB Home Appliances Division	15000
Greater noida		
100	Mahle Behr	8000
Gurgaon		
101	Decision Resources Group	25000
102	Ericsson Global India Pvt. Ltd.	35000
103	Ernst & Young (Advisory Services)	15100
104	Kinapse Ltd	10000
105	Nykaa	40000
106	OYO Tech	45000
107	Skoda Auto India Pvt. Ltd.	14000
108	United Airlines Business Services Pvt. Ltd.	32000
109	Urban Clap	40000
Haridwar		
110	SKF	6000
Hyderabad		
111	Alexa Apps +	20000
112	Apple India Pvt. Limited	45000
113	Bombardier Transportation	20000
114	DataM Intelligene 4Market research	15000
115	Deloitte Consulting US India	25000
116	Dream Vu	25000
117	Egnify Technologies	20000
118	FTD India Private Limited	25000
119	iB Hubs	7500
120	IMI Connect Product Development	35000
121	IMI Mobile R&D	35000
122	JPMC - Technology	35500
123	Microsoft India Development Center	45000
124	Novartis	25000
125	Oracle India Pvt Ltd.	35000
126	OYO Tech	45000
127	Perceptive Analytics	20000
128	RBJ Technologies Pvt Ltd	15000
129	Servicenow Software Development India	32000

S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)
130	UBS Business Solutions (India) Private Limited - Group Operations	25000
131	Vasant Chemicals and Organics Ltd. +	7500
Jodalli		
132	Spicer India Ltd.	8000
Kolkata		
133	LEA Associates	10000
134	PriceWaterHouseCoopers	40000
135	Texmaco Rail & Engineering Ltd.	4000
Mumbai		
136	Baldor Technologies Pvt Ltd	50000
137	Breakthrough Management Group India Pvt Ltd	10000
138	Bundl Technologies Private Limited (Swiggy)	40000
139	Credit Suisse - Enterprise Operational Risk Management	40000
140	Credit Suisse - Finance Change	40000
141	Credit Suisse - International Wealth Management	40000
142	Credit Suisse - Stress Testing	40000
143	DBOI - Credit Risk	30000
144	DBOI - MLRM, Risk Methodology & NFRM	30000
145	DBOI - Trading Risk & PL	30000
146	Edelweiss General Insurance	30000
147	Exponentia data	25000
148	Goodera - (Next Gen) (Non IT)	40000
149	Jarvis Technology and Strategy Consulting Pvt. Ltd.	30000
150	JPMC - Technology	35500
151	MSCI Financial Planning & Analysis	40000
152	Nomura - FinTech	50000
153	Nomura - Wholesale Strategy	50000
154	PaySense	25000
155	Piramal Group	70000
156	QUANTIPHI	30000
157	Reliance Jio	35000
158	Samhita Social Ventures	18000
159	UBS Business Solutions (India) Private Limited - GRC	25000
160	UBS Business Solutions (India) Private Limited - Group Operations	25000
161	UBS Business Solutions (India) Pvt. Ltd. - IMT	25000
162	UltraTech Cement Limited (Ahura Centre)	50000
163	Viacom18 Media Pvt. Ltd - Corporate Strategy	30000
164	Viacom18 Media Pvt. Ltd - Digital Ventures	30000
165	Amazon Fulfillment Center	40000
Navi Mumbai		
166	GEP	30000
Neemrana		
167	Hero MotoCorp Ltd	5000
New Delhi		



S.No.	PS-II Station	Out of Pocket Allowances (Rs. Per Month)
168	Investopad	10000
Noida		
169	ARM Embedded Technologies Private Limited	28000
Pune		
170	A.T.E. Enterprises Private Limited	20000
171	AFour Technologies	25000
172	Bajaj Auto	20000
173	Century Enka Ltd.	10000
174	Credit Suisse - Product Control	40000
175	Credit Suisse - Technology	40000
176	Ecozen Solutions (P) Ltd.	20000
177	HCL Technologies	18000
178	IBM India Software Group	30000
179	Knorr-Bremse Technology Center India Private Limited	15000
180	Mahle Behr	8000
181	Minda Corporation +	10000
182	Propeluss	30000
183	UBS	25000
184	UBS Business Solutions (India) Private Limited - Group Operations	25000
185	UBS Business Solutions (India) Private Limited - IMT	25000
186	UBS Business Solutions (India) Private Limited - RAS FINANCE	25000
Thiruvananthapuram		
187	Law Pundits	12500
188	UST Global Infinity labs- Cyber security	20000
189	UST Global Infinity IAbs- Machine learning	20000
190	USt Global Infinity Labs-Block Chain	20000
191	USt Global Infinity labs-Internet of Things	20000
192	UST Global Infinity Labs-Robotics	20000
193	UST Global- Infinity Research- 3D printing	20000
194	UST Global Infinity-Cloud Computing	20000
195	UST Global- Trivandrum+	20000
196	UST Global-Infinity lab-Artificial Intelligence	20000
197	UST Global-Infinity Labs- Augmented Reality	20000
Udaipur		
198	munshiG Pvt Ltd	21000
Visakhapatnam		
199	Dr Reddys Laboratories	10000

Table 2  
Increase in Monthly Stipend at PS -II Stations during the Year 2017

S.No	PS-II Stations	Monthly Stipend / out of pocket allowance	
		During 2017	During 2018
1	Skoda Auto India Pvt. Ltd., Aurangabad	8000	14000
2	Altair Engineering India Pvt. Ltd. - Software Division, Bangalore	15100	21500
3	American Express India , Bangalore	30000	100000
4	Bundl Technologies Private Limited (Swiggy), Bangalore	20000	40000
5	Cisco Systems (India) Pvt. Ltd - Software Engineering, Bangalore	34000	44000
6	Genpact, Bangalore	15000	18000
7	Goldman Sachs India Pvt. Ltd. - Operations, Bangalore	25000	35000
8	HSBC Electronic Data Processing India Pvt. Ltd., Bangalore	25000	40000
9	JP Morgan Chase - Technology, Bangalore	26250	35500
10	JPMC CIB Operations, Bangalore	26250	35000
11	Media Iq Digital, Bangalore	26500	35000
12	Mercedes Benz, Bangalore	20000	25000
13	National Instruments Systems (India) Pvt. Ltd., Bangalore	20000	30000
14	Nvidia Graphics - Hardware, Bangalore	30000	35000
15	Nvidia Graphics -Software, Bangalore	30000	35000
16	Qualcomm India Pvt Ltd- Bangalore	20000	30000
17	Qubole , Bangalore	45000	85000
18	Sattva Media & Consulting Pvt Ltd, Bangalore	12000	18000
19	Texas Instruments (I) Pvt. Ltd. -Analog, Bangalore	25000	40000
20	Texas Instruments (I) Pvt. Ltd. -Digital, Bangalore	25000	40000
21	Tonbo Imaging Pvt Ltd. - Image & Video Processing, Bangalore	15000	28000
22	LHD INDIA, Bhopal	15000	25000
23	Paypal, Chennai	40000	50000
24	Vestas Technology Ltd., Chennai	15000	30000
25	Rivigo Tech, Gurgaon	40000	70000
26	SRF Ltd., Gurgaon	12000	18000
27	GGK Technologies - Mobile Services, Hyderabad	20000	25000
28	Nvidia Graphics - Hardware , Hyderabad	30000	35000
29	Nvidia Graphics - Software, Hyderabad	30000	35000
30	Qualcomm India Pvt Ltd., Hyderabad	20000	30000
31	Worley Parsons India, Hyderabad	16000	19000
32	Aditya Birla Science & Technology Company Ltd., Mumbai	11000	13000
33	Credit Suisse - Credit Analytics	25000	40000
34	Credit Suisse - Global Markets Controls COO	25000	40000
35	Credit Suisse - Market Risk Quant	25000	40000
36	Credit Suisse - MLR Non-quant	25000	40000
37	Credit Suisse - Model Risk Management	25000	40000
38	Credit Suisse - Prime Services	25000	40000
39	Credit Suisse - Risk & Finance Data Analytics, Reporting	25000	40000
40	Development Consultants Pvt. Ltd. (DCPL), Mumbai	8000	8500
41	J P Morgan Services - Quant , Mumbai	40000	75000
42	J P Morgan Services -Centralized Research Group(CRG), Mumbai	40000	50000

43	J P Morgan Services- Global Markets Group(GMG) - (Markets +Risk), Mumbai	40000	75000
44	J P Morgan services- Global research Centre(GRC)	40000	75000
45	JPMC CIB Operations, Mumbai	26250	35000
46	Adobe Systems, Noida	40000	50000
47	Nucleus Software Export Ltd, Noida	25000	30000
48	Bharat Forge Ltd +, Pune	5000	7500
49	Credit Suisse - Risk & Finance Data Analytics, Reporting, Pune	25000	40000
50	Divgi Torq Transfer Systems Pvt. Ltd, Shivare, Pune	12000	12500
51	Divgi Torq Transfer Systems Pvt. Ltd. - Bhosari, Pune	12000	12500
52	Nvidia Graphics - Hardware, Pune	30000	35000
53	Nvidia Graphics - Software Systems, Pune	30000	35000
54	Reflexis Systems India Pvt Ltd. , Pune	20000	30000

#### PS Planning

The preparation for running Practice School courses starts almost one year in advance at the PS Division. The process of preparation of student profile, analysis of student preferences and the student allotment for Practice School courses is completely computerized.

#### PS Instruction Monitoring

After successfully working with WEPSIMS for a number of years, PS Instruction Monitoring has now introduced PSMS (Practice School Management System). It is an online web enabled tool for an efficient and quick data entry, data retrieval and data management. It is efficiently used for automatic letter generation, evaluation and grading for PS I and PS II and student feedback. PS Division makes constant efforts to maintain and increase the efficiency of instruction monitoring.

#### Students' Involvement in PS Division-based Projects

The PS Division of the Institute has continued to involve students in analysis, documentation, and educational research-based activities of the Division through projects based on Organizational Aspects, Computer Project, First Degree Thesis and Higher Degree Dissertation. In this regard PS Division has involved students in the following Division-based projects:

1. Development of software related to students and faculty allotment; maintenance of zonal and data analysis related to allotment of students at various stations; modification of the already developed allotment modules.
2. Computerization of PS accounts processing.
3. Development and maintenance of web based tools for instruction to PS II faculty; development and modification of software modules for grade and feedback analysis.
4. BITS Pilani offers scholarship of Rs. 66,000/- (for the entire duration of PS-II) to selected PS-II students with CGPA 7.00 and above at various research organizations.

### Academic Research

#### First Degree Thesis

During the year, 415 First-Degree thesis projects have been completed at Pilani campus. The list of completed First-Degree thesis during Second Semester 2017-18 and First Semester 2018-19 is given in **Annexure 'B1-9'**.

#### Higher Degree Dissertation

During the year, 65 Higher Degree dissertation projects have been completed in Pilani campus. The list of completed Higher Degree Dissertations during Second Semester 2017-18 and First Semester 2018-19 is given in **Annexure 'B1-10'**.

## Ph.D. Programme

## (a) Award of Ph.D. Degree (viva conducted) -Pilani campus

S. No.	ID No	Name	Thesis Title	Dept	Supervisor	Co-Sup
1.	2011PHXF0409P	Kurhe Yeshwant Vijay	Behavioral and Neuro-pharmacological Screening of Potential Serotonergic Modulators for Depression Co-morbid with Obesity	Pharmacy	R. Mahesh	
2.	2013PHXF0404P	Goru Santosh Kumar	Role of Histone Ubiquitination and Angiotensin Converting Enzyme 2 in the Development of Renal Fibrosis under Type I Diabetic Condition	Pharmacy	Gaikwad Anil Bhanudas	
3.	2013PHXF0111P	Shreshtha Malvia	Study of Gene Expression and Methylation Profiles Associated with Early and Late Onset Indian Breast Cancer Patients	Biological Sciences	Sunita Saxena	SA Raju Bagadi/ Uma S. Dubey
4.	2012PHXF0001P	Chasul	Internet Based Technology Acceptance among Students of Communication Skills Courses in Technical Higher Education	H&SS	VS Nirban	
5.	2013PHXF0007P	Sorabh Sharma	Exploring the Link between insulin Resistance and Neurodegenerative Disorders and its possible mechanism(s)	Pharmacy	Rajeev Taliyan	
6.	2013PHXF0513P	Shruti Shastri	Twin Deficits and their Sustainability: Evidences from Major South Asian Economies	Economics	AK Giri	G. Mohapatra
7.	2011PHXF0416P	Priya Gupta	Design Exploration of low power arithmetic and SRAM circuits using subthreshold design techniques	EEE	Anu Gupta	Abhijit Rameshwar Asati
8.	2012PHXF0018P	SM Abdul Shakoor	C-H Functionalization of Imidazo-Heterocycles and Exploration of Imidazolium-Supported Benzotriazole Reagent for Selective Organic Transformations	Chemistry	Rajeev Sakhuja	
9.	2011PHXF0044P	Sonal Kumari	Design and Implementation of Exact, Efficient, and Scalable Parallel Clustering Algorithms	CS&IS	Naneet Goyal	Poonam Goyal
10.	2013PHXF0423P	Anuradha	Role of Epigenetics in Modulating Inflammatory Response Mediated by NF- $\kappa$ B through AT1 or AT2 receptors in the Development of Renal Failure under Type 2 Diabetic Condition	Pharmacy	Gaikwad Anil Bhanudas	
11.	2012PHXF0006P	Anuradha Devi	Treatment of Spent Pickling Liquor and Applications of Pickling	CE	Anupam Singhal	Rajiv Gupta/ SK Verma

S. No.	ID No	Name	Thesis Title	Dept	Supervisor	Co-Sup
			Sludge			
12.	2014PHXF0420P	Rajesh Kumar	An Investigation of Lab Scale Oxygen Enriched Bubbling Fluidized Bed Combustor for Cofiring Conditions	ME	Ravi Inder Singh	
13.	2010PHXF0413P	Isha Pandey	Comparative Genome Analysis and Localization of Hypothetical Conserved Plasmodial Proteins	Biological Sciences	A.K. Das	
14.	2011PHXF0049P	L.Raja	Synthesis and Characterization of Organic Luminescent Materials (Zn(II) and Ru(III)) and Fabrication of Energy-Efficient Organic Light Emitting Diodes Using Alq3	Physics	S.Sindhu	
15.	2012PHXF0405P	Almesh Kadakol	Role of Esculetin on Renin Angiotensin System and Epigenetics in the development of Cardiovascular and Renal Complications associated with Type 2 Diabetes	Pharmacy	Gaikwad Anil Bhanudas	
16.	2013PHXF0405P	R. Sruthi	Investigating the Molecular Mechanisms Involved in Neuroprotective Effect of Remote Limb Ischemic Post Conditioning Against Cerebral Ischemic Reperfusion Injury and Associated Cognitive Deficits	Pharmacy	Rajeev Taliyan	
17.	2011PHXF0024P	Poonam Khedar	Click Chemistry Inspired Synthesis of Novel Triazolyl Conjugates and their Antimicrobial Activity	Chemistry	Anil Kumar	
18.	2012PHXF0004P	Tridev A Mishra	Some Studies on Modifications of Low Dimensional Systems under the Application of Periodic Driving	Physics	Tapomoy G. Sarkar	JN Bandyopadhyay
19.	2013PHXF0002P	Sanjeev Jakhar	Design, Analysis and Development of Photovoltaic and Concentrating Photovoltaic Cooling Systems with Earth Water/Air Heat Exchanger	ME	Manoj Kumar Soni	
20.	2011PHXF0020P	Pankaj Nehra	Synthesis Characterization and Applications of Ionic Liquid-tagged Schiff Base Complexes of Pd, Cu and Zn	CHEM	Bharti Khungar	SC Sivasubramanian
21.	2012PHXF0014P	Meenakshi Sharma	Understanding the Impact of Social Learning Forms on Environmentally sustainable Consumption	Management	Leela Rani	

S. No.	ID No	Name	Thesis Title	Dept	Supervisor	Co-Sup
			Behavior among Children			
22.	2011PHXF0013P	Panchsheela Nogia	Targeting Cyanobacterial Bicarbonate Transporter BicA into Chloroplast of Model C3 Plants and Analyzing Transient Expression and Localization	Biological Sciences	Sandhya Mehrotra	
23.	2012PHXF0406P	Pankaj Wadhwa	Design, Synthesis and Evaluation of Novel HIV-1 Integrase Inhibitors	Pharmacy	HR Jadhav	
24.	2010PHXF0454P	Parimal Merchant	Induction in Family Businesses: A Study of Alternative Approaches	Economics	Debasis Mallik	Arya Kumar
25.	2010PH430412P	Himanshu Chawla	Study of Structural Response and Failure Characteristics of Thin-Walled Flanged FRP Beams	CE	Shamsher Bahadur Singh	
26.	2013PHXF0421P	Shaik Hussain	A Study on the Effect of Carbonation on Properties of Concrete	CE	Dependu Bhunia	S.B. Singh
27.	2011PHXF0425P	Jaya Abraham	Design and Evaluation of Novel Delivery Systems of Tapentadol for Enhanced Brain Delivery	PHA	RN Saha	
28.	2012PHXF0415P	Vandana	Transformation and Expression of a Na <sup>+</sup> -Dependent High Affinity Bicarbonate Transporter SbtA in <i>Nicotiana</i> Chloroplasts	Biological Sciences	Sandhya Mehrotra	
29.	2012PHXF0431P	Parik Kakani	The Role of Anopheles Heme Peroxidases in Mosquito Immunity against Blood-Borne Antinens and Divergent Expression of <i>Anopheline</i> Lineage-Specific Duplicated Genes	Biological Sciences	Sanjeev Kumar	Pankaj Kumar Sharma
30.	2012PHXF0017P	Pragati Fageria	Synthesis of Metal, Semiconducting Metal Oxide and Sulfide Nanomaterials for Catalysis and Photocatalysis	CHEM	Surojit Pande	
31.	2012PHXF0024P	Sheik Saleem Pasha	Design, Syntheses and Study of Photo Physical Properties of Aggregation Induced Emission active Compounds: Applications in Bio-imaging and Mehanoluminescence	CHEM	IR Laskar	
32.	2013PHXF0437P	Pankaj	Development and Usage of Ductile Composite Materials for Retrofitting and Strengthening of Masonry Structures	CE	Dr. S.B.Singh	
33.	2007PH440574P	R. Srinivas	Multi-Criteria Decision Analysis and Modeling for Water Quality Management in a River	CE	AP Singh	Shibani K Jha

S. No.	ID No	Name	Thesis Title	Dept	Supervisor	Co-Sup
			Basin			
34.	2014PHXF0601P	Kavindra Kandpal	Investigations on Electronic Behavior and Stability Issues of Zinc Oxide (ZnO) based Thin-Film Transistors (TFTs)	EEE	Navneet Gupta	
35.	2012PHXF0003P	Mohit Sharma	Understanding Managerial Perception of Corporate Social Responsibility Practices in Public Sector Undertaking: An Empirical Study	H&SS	Umesh Dhyani	Kumar Neeraj Sachdev
36.	2012PHXF0407P	Swarupa Deb	Contesting the Gender Binary: A Study on the Changing Status of Transgender Communities in Tamil Nadu, Karnataka, West Bengal and Tripura between circa 1990 and 2016	H&SS	HG Nair	
37.	2010PHXF0448P	Manish Dave	Knowledge Management Relationship with Competitiveness: An Empirical Study of Indian Cement Industry	Management	Arya Kumar	Kanhaiya Singh
38.	2012PHXF0013P	Nikita Sharda	Antecedents of Luxury Consumption in India: An Empirical Investigation	Management	Anil K. Bhat	
39.	2011PHXF0009P	Vikrant Bhakar	Development of a Sustainability Assessment Framework for Manufacturing Industry	ME	KS Sangwan	AK Digalwar
40.	2013PHXF0503P	Rohit Upadhyay	Behavior and Characterization of High Velocity Oxy Fuel (HVOF) Thermal Spray Wear and Corrosion Resistance Coatings in Narrow Areas	ME	Sharad Shrivastava	
41.	2014PHXF0010P	Nilesh Purohit	CO <sub>2</sub> Refrigeration System in Warm Climate: Experimental Investigation, Parameter Optimization and Supermarket Application	ME	MS Dasgupta	Dileep Kumar Gupta
42.	2011PHXF0410P	Satish Sangappa Reddi	Studies on Development and Evaluation of Carbopol Based Pellets of Selected Drugs Using Extrusion Spheronization Technology	Pharmacy	RN Saha	
43.	2012PHXF0434P	Archana Khosa	Design, Characterization and Evaluation of Lipid Based Nanoparticulate Temozolomide for Enhanced Delivery to the Brain	Pharmacy	RN Saha	

## (b) Ph.D. Thesis Submitted and Under Process of Evaluation (Pilani campus)

S.No.	ID No	Name	Thesis Title	Dept	Supervisor	Co-Sup
1.	2013PHXF0426P	Tania Pal Choudhary	The Identification and Characterization of Mosquito Peroxidase(s) and their role in orchestration of Mosquito Immunity	Biological Sciences	PN Jha	Sanjeev Kumar
2.	2013PHXF0410P	Subhra Dash	Analyzing the Role of TNF- $\alpha$ and Autophagy in Regulation of TGF- $\beta$ Induced Epithelial to Mesenchymal Transition in Cancer Cells	Biological Sciences	Rajdeep Chowdhary	Sudeshna Mukherjee
3.	2011PHXF0407P	Parva Kumar Sharma	In-Silico Functional Annotation of Unannotated Protein-coding Gene of <i>Arthrospira platensis</i> NIES-39 Genome and Investigation of Proteins Involved in Nitrogen Assimilation Pathway	Biological Sciences	Shibasish Chowdhury	
4.	2013PHXF0511P	Rajeev Sharma	Experimental and Theoretical Study of Biomass Pyrolysis and Product Characterization	Chemical Engineering	Pratik N. Sheth	
5.	2013phxf0015p	Roshan Nazir	Synthesis of Meetal and Metal Oxide Nanoparticles for Electrocatalytic Hydrogen and Oxygen Evolution Reaction	Chemistry	Surojit Pande	
6.	2012PHXF0428P	Hitesh Kumar Saini	Synthesis of Azaheterocycles via Copper/Palladium-Catalyzed Intramolecular Arylation Reactions	Chemistry	Anil Kumar	
7.	2012PHXF0427P	Sachin Choudhary	Organocatalytic Approach towards the Synthesis of Some Nitrogen-Containing Heterocycles	Chemistry	Indresh Kumar	
8.	2012PHXF0410P	Fayaz Baig	Coordination Polymers of Ligands Based on Imine Functional Groups: Analysis of their Structure and Property Relationship	Chemistry	Madhushree Sarkar	
9.	2012PHXF0411P	Santosh Kumari	Coumarin-appended Amino Acids and Azaheterocycles: Design, Synthesis, Photophysical Studies and Sensing Applications of Selected Compounds	Chemistry	Rajee Sakhujia	
10.	2012PHXF0409P	PO Venkataramana Reddy	Synthesis, and Anticancer Activity Studies of Some Novel Indole Related Heterocycles	Chemistry	Dalip Kumar	
11.	2013PHXF0016P	Sunita Kumari	Study of Solvation Dynamics in Micelles and Interactions of Gemini Surfactants with $\beta$ -Cyclodextrin and Biomolecules in Aqueous Media	Chemistry	SK Saha	G. Sundar
12.	2013PHXF0017P	Khima Pandey	Synthesis of Functionalized Imidazo[1,2-a]pyridines and Amides using Pyridinium Salts	Chemistry	Anil Kumar	
13.	2014PHXF0429P	Manpreet Singh	Assessment of Potential of Marble Slurry As a mineral Admixture in Concrete	Civil	Anshuman	Dipendu Bhunia
14.	2011PH30050P	Dewal Mishra	A study to estimate the Impact of Accessibility on Transit Mode Choice	Civil	AK Sarkar	



S.No.	ID No	Name	Thesis Title	Dept	Supervisor	Co-Sup
15.	2014PHXF0004P	Gaurav Kumar	Design and implementation of a Generic Methodology for Scenario Development with Assessment over Water Resources	Civil	Rajiv Gupta	
16.	2013PHXF009P	Rupal Bhargava	Learning-based Approaches for Addressing Challenges in Sentiment Analysis	CS&IS	Yashvardhan Sharma	
17.	2013PHXF0010P	Neetika Gupta	Robust Image Registration Methods for Varying Image Quality and Imaging Conditions in Augmented Reality Systems	CS&IS	M.K. Rohil	
18.	2010PHXF0412P	Nitin Singh Rajput	A Framework for Efficient Multi-Constraint QoS Routing in ANETs and Hybrid Network Systems	CS&IS	Rahul Banerjee	D. Sanghi
19.	2011PHXF0416P	MK Kaushik	Investigations on Building Robust Cognitive Radio based Network	CS&IS	Y. Yoganandam	SK Sahoo/ C. Hota
20.	2004PHXF0434P	Dinesh Kumar Tyagi	Survivable Routing Mechanisms in Optical WDM Networks	EEE	V.K.Chaubey	
21.	2011PHXF0004P	Gaurav Purohit	An Energy Efficient Reconfigurable Digital Baseband Architectures for SDR	EEE	VK Chaubey	KS Raju
22.	2011PHXF0402P	CV Jayanthi	Perspectives on Some Aspects of Ethical Awareness in Corporate India - an Empirical Study	H&SS	U. Dhyani	
23.	2012PHXF0421P	Dolly Seehra	Tracking Narrative Patterns and Film Elements within the Selected Short Fictional Films of Mira Nair: An empirical Study	H&SS	Geetha B	
24.	2012PHXF0012P	Priyanka Bhattacharya	Positive Organisational Practices in Indian Engineering and Technology Institutes: A Model Building Approach	Management	Sarvesh Satija	Rajan K. Gupta
25.	2013PHXF0435P	Bhavya Tripathi	Modeling and Analysis of Single and Two-phased MHD Blood Flow in a Stenosed Artery with Heat and Mass Transfer	Mathematics	B.K. Sharma	
26.	2013PHXF0201P	Gajanand Gupta	Development of a Framework and Criticality Analysis Model for the Implementation of Reliability Centered Maintenance	ME	RP Mishra	

#### Ph.D. Aspirant's & Part-Time Ph.D. Scheme

This scheme has attracted candidates from industry, R&D, education and entrepreneurial sectors towards the Ph.D. programme of the Institute. A number of candidates have been permitted in this year to appear in the Ph.D. qualifying examination. Topics of research identified by these candidates are of relevance to the organization and the society as a whole. Association of many such candidates and their supervisors has given the academic benefits to the ongoing students through special lectures delivered by them.

Ph.D. Qualifying examination: 92 Ph.D. candidates, were permitted to appear in the Ph.D. qualifying examination in the year 2018 at Pilani campus.

## CSIR/UGC/DST Fellowship

### CSIR/UGC/DST Fellowship

Funding agencies such as Council of Scientific and Industrial Research (CSIR), University Grants Commission (UGC), DST, ICMR has provided 95 Junior and Senior Research Fellowships to Ph D students of the Institute. These research fellows are working for their Ph.D. degree across the campuses.

### Fellowships under Externally Funded Projects

Apart from the above mentioned fellowship there are full time research scholars working on projects sponsored by various agencies like DST, DBT, CSIR, ICAR, NPMAS, Incozen, Inspire, BRNS, MNRE, UGC, ICMR, TCS etc. There are 109 research scholars at present in such position.

### Sponsored Research Projects

Research projects sponsored by agencies such as CSIR, DST, DBT, ICMR, DRDO, ICAR. SLAYBACK Pharma, NHAI, Enaltec, Crenza Pharmaceuticals and such other sponsoring agencies are in operation. A list of on-going research projects is given below:

### Sanctioned projects:

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
1	Quality by design (QbD) based suspension product development and process optimization	Dr. Sunil Kumar Dubey and Dr. Gautam Singhvi	SLYBACK Pharma	12.50
2	Activity targeted nano-formulations for co-delivery of a taxane and antioxidant molecule, alpha acid, for treating breast cancer	Dr. Deepak Chitkara	DST-Rajasthan	11.14
3	Development of e-waste management strategies for selected e-products in Rajasthan	Dr. M S Dasgupta -PI Dr. Srikanta Routroy Co-PI	DST-Rajasthan	7.54
4	A Benchmarking analysis public transport sector of Rajasthan	Dr. Shivi Agarwal - PI Dr. Trilok Mathur- Co-PI	DST-Rajasthan	5.29
5	cRGD decorated lipo-polymeric nanoplexes of CRISPR/Cas9 ribonucleoprotein (RNP) for the management of retinal dystrophic conditions.	Dr. Deepak Chitkara	DBT	50.04
6	Develop of novel anti-leishmanial analogues loaded with novel nano-formulations	Dr. S Murugesan -PI Dr. KVG Chandrashekar - CO-PI	DBT-Indo Spain	60.00
7	Development and evaluation of lipid based nanoparticles of Quinapyramine and Isometamidium salt for treatment of trypanosomiasis in camels	Dr. Anil Jindal - PI Dr. Paul Atish Tulshiram - CO-PI	DBT	29.04
8	Widening & Strengthening of existing Bikaner-Phalodi section to Four Lane from Km4+200 to Km 55+250 and two lane with PS from Km 55+250 to Km 163 +500 of NH-15 on BOT basis in the state of Rajasthan	Dr. A K Sarkar	NHAI	53.50
9	Gel-based composite formulation containing asiaticoside and neurotensin for rapid healing of diabetic wounds	Dr. Anupama Mittal	ICMR	23.80
10	Re-value: Innovative technologies for improving resource utilization in the Indo-European fish value chains	Dr. Souvik Bhattacharya - PI Dr. Srikanta Routroy- Co-PI Dr. M. S. Dasgupta - Co-PI	DBT	62.00
11	Umbilical cord mesenchymal stem cells derived exosomes as biogenic nanocarriers of miRNA and	Dr. Anupama Mittal	DST-Nanomission	40.57

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
	chemotherapeutic drug for reversal of chemoresistance in breast cancer			
12	Preliminary investigation, characterization and stability analysis of micelles formulation	Dr. Sunil Kumar Dubey and Dr. Gautam Singhvi	Enaltec Labs Pvt. Ltd	1.46
13	Design and Characterization of Nanoparticle based drug delivery systems of Anticancer drug	Dr. Murali Monohar Pandey	Crenza Pharmaceutical Pvt Ltd Hyderabad	8.00
14	Epistemology Revisited: Postmodern Discourse alternative forms of cognition and interdisciplinary of knowledge	Dr. Anupam Yadav	ICPR	2.00
15	Insight into dissolution mechanism of amorphous solid dispersions of macitentan	Dr. Murali Monohar Pandey	DBT	8.00
16	Novel ophthalmic formulation	Dr. R N Saha and Dr. Gautam Singhvi	SLYBack Pharma Hyderabad	14.00
17	Synthesis of metal complexes using D-glucose derived ligands and application of produced molecules in catalysis	Dr. Ajay Kumar Sah	CSIR	11.32
18	Experimental investigations on catalytic treatment of producer gas	Dr. Pratik N Sheth	Ankur Scientific Energy Technologies Pvt. Ltd	6.72
19	Photo degradation of toxic organic dyes using dye-sensitized semiconductor photocatalyst	Dr. Shamik Chakraborty	CSIR	8.07
20	GCRF-HEFCW-Small Projects	Dr. A K Sarkar, Dr. Prasanta Sahu , Dr. Bandhan Majumder	CARDIFF University, UK	11.10
21	Integrated approach for the efficient removal and recovery of Zinc from the viscose fiber process	Dr. S K Verma - PI Dr. A P Singh - Co-PI Dr. Jitendra Panwar - Co-PI , Dr. Suresh Gupta- Co-PI	BITS Pilani-ABSTCPL Joint project	49.42
22	Role of Endocrine Disrupting chemicals (ECDs) in Maternal and Child Health	Dr. Sunil Kumar Dubey	ICMR-Ad-Hoc Scheme	9.00
23	Understanding hyperglycemia induced alterations in non-coding RNA expression pattern and post-translation histone protein modifications contributing to drug resistance and progression of pancreatic cancer	Dr. Rajdeep Chowdhury - PI Dr. Gaikwad Anil Bhanudas - Co-PI	DST-SERB	40.32
24	Influence of English Teacher's Efficacy, competence and Motivation on their Instructional Strategy: A Study of Secondary Schools Teachers in Jhunjhunu, Rajasthan	Dr. Devika- PI Mrs. Rajni Singh - Co-PI	NCERT	6.80
25	Development and preclinical evaluation of nanostructured lipid particles of bleomycin sulphate for targeting Brain cancer	Dr. Sunil Kumar Dubey and Dr. Gautam Singhvi	Oniosome Healthcare Private Ltd.	12.75
26	Efficacy & Effectiveness of Information, Education and Communication (IEC) Activities for Health Awareness and Promotion among Women in Rajasthan: Towards a HOPE Approach	Dr. Gajendra Chauhan - PI Dr. Rajneesh Choubisa - Co-PI , Dr. Tanu Shukla- Co- PI Dr. Sailaja Nandigama -	ICMR-ICSSR	25.11

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
		Co-PI, Dr. R.P. Pareek- Co-PI		
27	Development & Validation of a Prototype of a Web/Mobile App Based Positive Psychological Intervention for Adolescents	Dr. Rajneesh Choubisa - PI Dr. Gajendra Singh Chouhan- Co-PI Dr. Tanu Shukla- Co-PI	ICMR-ICSSR	17.00
28	Information gathering from encrypted mobile phone applications	Dr. Ashutosh Bhatia- PI Dr. Kamlesh Tiwari- Co-PI	CAIR-DRDO	9.29
29	Development of Fault diagnosis scheme for Aero-bearing with multiple localized defects using non-linear mathematical modeling and experimental analysis	Dr. Arun Kumar Jalan-PI Dr. Sachin Belgamwar- Co-PI	DRDO	9.98
30	Development of a Dielectric Resonator based displacement sensor	Dr. Praveen Kumar AV	SERB	20.75
31	Substrate supported transition metal doped alkaline earth clusters as hydrogen storage materials and their applications in hydrogen fuel cell	Dr. Debashish Bandyopadhyay	DST-SERB	20.57
32	Heteroaromatic-Annulated Porphyrins: Design, Synthesis and Study of optoelectronic properties towards the development of photosensitizers	Dr. Dalip Kumar	SERB	24.82
33	Analysis of mitochondrial dynamicity post drug exposure in human glioblastoma cells and understanding its correlation with drug resistance	Dr. Sudeshna Mukherjee	SERB	27.89
34	Enhancement of oral bioavailability of selected drugs	Dr. Aniruddha Roy & Dr. Gautam Singhvi	INTAS Pharmaceuticals LTd., Ahmedabad	45.00
35	Statistical Mechanics of biopolymers in confined geometry	Dr. Navin Singh	DST-SERB	28.42
36	Waste Management of Generated Sludge from Indian Steel and Steel related plants: A sustainable Business Model	Dr. Srikanta Routroy-PI Dr. Anupam Singhal-Co-PI Dr. Dipendu Bhunia-Co-PI	Ministry of Steel	23.72
37	To investigate the mechanism of CRISPR-Cas regulated biofilm formation in salmonella enterica serovar Typhimurium	Dr. Sandhya Amol Marathe	SERB	43.71
38	Pharmacokinetic and toxicity study of designed formulation	Dr. Gautam Singhvi and Dr. Sunil kumar Dubey	Crenza Pharmaceutical Ltd	3.50
39	Design exploration and performance analysis of RF-MEMS SPST and SPDT switches	Dr. Mahesh Angira	BITS-ACRG	8.70
40	Investigate role of CRISPR-cas system in pathogenesis of salmonella enterica serovar typhimurium	Dr. Sandhya Marathe	BITS-ACRG	7.50
41	Understanding the role of long non coding RNA in glomerular endothelial cell dysfunction during diabetic nephropathy	Dr. Syamantak Majumder	BITS-ACRG	8.50
42	Exploiting background information for efficient coordination of multi-robot systems dispatched for service delivery in an indoor environment	Dr. Avinash Gautam	BITS-ACRG	8.00
43	Experimental studies on mechanics of micromechanical structures and cells	Dr. Venkatesh Kadbur Prabhakar Rao	BITS-ACRG	8.20
44	Ultrasonic assisted grinding of difficult	Dr. Varun Sharma	BITS-ACRG	9.40

S.No	Project Title	Principal Investigator	Sponsoring Agency	Amount Sanctioned
	to cupt material with cryo-minimum quantity lubrication			

## Ongoing Projects:

S.No	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
1	Synthesis of novel N-fused polycyclic compounds through transition metal catalyzed cascade/C–H functionalization reactions	Dr Anil kumar	DST	32.46
2	Synthesis and tubulin inhibition activity studies of novel indolyl heterocycles	Dr. Dalip Kumar	CSIR	22.36
3	Screening Decoration of Co-catalyst on the Ultrathin 2D Sheets of Metal Chalcogenides and their application in Photo electrochemical Water Splitting	Dr. Mrinmoyee Basu	DST-INSPIRE	35.00
4	Decoration of Plasmonic nanoparticles on Ultrathin 2D Nanostructure of Metal Chalcogenides and their application in photoelectrochemical water splitting and photocatalysis	Dr. Mrinmoyee Basu	DST-FT	19.82
5	Investigation of Unfolding and refolding of proteins by Gemini surfactants with varying spacer groups using fluorescence spectroscopy and small angle neutron scattering technique	Dr. Subit Kumar Saha	UGC-DAE	3.45
6	Effect of Chemical nature of spacer group, headgroups and counterions of gemini surfactants on solvation dynamics and rotational relaxation of coumatins in aqueous micelles	Dr. Subit Kumar Saha	CSIR	9.28
7	“Probing the Nature of Intermolecular X–H...Se (X = O and N) Hydrogen Bonding Interactions using Matrix Isolation Infrared Spectroscopy”	Dr. Shamik Chakraborty	DST	73.55
8	Asymmetric synthesis of [2.2.2] azabicyclo-isoquinuclidine derivatives: Towards the synthesis of related alkaloids	Dr. Indresh Kumar	DST	43.3
9	Studying Catalytic carbonylation of polyols-Sustainable Route to Carboxylic Acids from Renewable Platforms	Dr. Bibhas Ranjan Sarkar	DST	32.3
10	Synthetic Probes for Staudinger Ligation: Synthesis and Application of Phosphane Based templates	Dr. Kiran Bajaj	DST-WOS	29.7
11	Development and application of density functional reactivity theory based modeling techniques to understand the energetics of reactive and non-reactive interactions	Dr. Ram Kinkar Roy	DST	31.55
12	Synthesis of D-glucose derived glycoconjugates and their application in molecular recognition and catalysis	Dr. Ajay Kumar Sah	DST	30.1
13	Modeling of Employee performance and human capital Assessment and optimization of productivity of Indian	Dr. Udayan Chanda	ICSSR	5

S.No	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
	Manufacturing Industry			
14	Development and validation of Service Quality Index in Indian Telecom & Banking sector	Dr. Arun Kumar	ICSSR	4
15	Financial Inclusion	Dr. Arun Kumar Vaish	HCL	180
16	Cyclic RGD modified lipopolymeric micelles for targeted delivery of tamoxifen in ER+Breast cancer	Dr. Anupama Mittal	DST Rajasthan	12.54
17	Nanotechnology based pharmaceutical, nutraceuticals and cosmetics-development of platform technology	Dr. Deepak Chitkara	Incisive Elements	21.38
18	Peptide-decorated pH-sensitive nano-conjugate hybrid micelles for co-delivery of temozolamide and an autophagy inducer, rapamycin, for treatment of glioblastoma multiforme	Dr. Deepak Chitkara-PI Dr. Gaikwad Anil Bhanudas -CO-PI	DBT	41.94
19	Development of nutraceutical nanoemulsion based health drink of food bioactives	Dr Anil Jindal	Ananta Medicare Limited	5.10
20		Dr. Rajeev Taliyan and Dr. Sunil Dubey	Etical Clinpharm Pvt Ltd	8.00
21	Exploring the synergism of PPAR-Y agonist and HDAC inhibitor for reversal of Alzheimers type of dementia and developing their brain targeted nano-carrier system for effective treatment	Dr. Rajeev Taliyan	DST-Nanomission	32.14
22	Development of a standardized formulation of Trigonella foenum-graecum seeds for preventing of delaying the development of Type-2 diabetes in subjects with Pre-diabetes	Dr. Sunil K Dubey	ICMR	16.73
23	Evaluation of Antitumor efficacy and pharmacokinetics of polymeric nanoparticle formulation targeted to cancer stem cells	Dr. Aniruddha Roy	DST	32.20
24	Conjunctive use of Rainwater and Ground water to provide safe drinking water with intervention of advanced technology	Dr. Rajiv Gupta	DST	126.43
25	Costs and remediatin of Groundwater contamination in India	Dr. Rajiv Gupta	University of Virginia	100.00
26	Joint Indo-German Experience Lab	Dr. K S Sangwan	DAAD	341.00
27	Design of Health care supply chain for enhancing availability and reducing wastage of generic medicines for rural areas in Rajasthan	Dr. Srikanta Routroy	DST Rajasthan	5.88
28	Modeling Immune Response to Salmonella during Typhoid	Dr. Amol Marathe	DST	34.06
29	Mathematical modeling and analysis of the dynamics of diabetes mellitus in indian population and control measures	Dr. Padma Murali	CSIR	8.78
30	Mathematics aided Architectural Design layouts	Dr. Krishnendra Shekhawat	DST	15.45
31	Study of Observational Constraints on dark energy models of universe using COSMOMC in HPC systems	Dr. Suresh Kumar	DST-EMR	26.29

S.No	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
32	Soft Computing framework based Integrated Multi Sensor Array for Water Quality Assessment: Targeting fluoride as major parameter	Dr. K.K.Gupta Dr. R.K.Gupta	DST	38.7
33	Study on Electronic Transport Behaviour of Carbon nanotube based field effect transistors (CNTFETs)	Dr. Navneet Gupta-PI Dr. Niladri Sarkar -CO-PI	DRDO	20.49
34	Development of Tio2 nanotube based highly selective capacitive type sensor device for the detection of methanol poisoning in alcoholic beverage	Dr. Arnab Hazra	DST	27.76
35	Removal of Heavy metals from industrial wastewater using metallic nanoparticales as absorbents	Dr. Banasri Roy	DST	19.00
36	Mutant-p53 gain-of-function: its role in regulating long non-coding RNA (lncRNA) Expression and associated chemo-resistance in human cancer cells	Dr. Rajdeep Chowdhury	DBT	25.00
37	Investigating the Role of Aryl Hydrocarbon Receptors in medicating the Anti-Cancer Properties associated to camel milk	Dr Uma Dubey	DST- Rajasthan	7.43
38	Development of bioinoculant based formulation for enhanced phytoremediation of poly chorinated biphenyl (PCB) contaminated soil	Dr. Monika Sandhu	DST-WoS	20.80
39	Production and use of indigenous local strains of microbial pesticides through trainings, demonstrations and installation of cost effective production units for the farmers of Rajasthan	Dr. Jola Dubey	DST-WoS	26.33
40	Removal of toxic metal ions from industrial discharges using microalgae	Dr. Prakash	DST-WoS	38.9
41	Development of Surface Plasmon Resonance Instrument with a novel optical design	Dr. R.K.Gupta-PI Dr. Manjula Devi- Co-PI	DST	56.15
42	EXAFS Investigations on ion conducting polymer nanocompsites for conductivity strucre corelation	Dr. Anshuman Dalvi	UGC-DAE	3.98
43	Investigations on Li+ ion conducting glass-ceramic containing NASICON structured nano crystallites	Dr. Anshuman Dalvi	DST	37.65
44	Studies on Quarkonium suppression in Asymmetric Nuclear Collision at LHC	Dr. Madhukar Mishra	DST	15.85
45	"Investigating Dynamical and Topological Properties of Fioquet Systems: A Comparative study of perturbative Schemes	Dr. Jayendra Bandyopadhyay Dr. Tapomoy Guha Sarkar	DST	16.22
46	"Generation and Characterization of Attosecond Pulses with Specific Polarization and its Applications"	Dr. Amol Holkundkar Dr. Jayendra Bandyopadhyay	DST	16.54
47	Electro-optical response of Nematic Liquid Crystals doped with nanorods	Dr. Manjula Devi	DST	39.20
48	Participatory Exclusion of women and the poor in community Forestry: A Comparative Study of Implementation	Dr. Sailaja Nandigama Dr. Sanjeev Kr. Choudhary, Dr. Kumar	ICSSR	7.00

S.No	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
	of the ROFR Act across 3 states of India	Sankar Bhattacharya		
49	FIST Mechanical Engg Department	Department	DST	81.5
50	FIST Mathematics Department	Department	DST	50.0
51	FIST EEE Department	Department	DST	72.5
52	FIST Biological Sciences Department	Department	DST	27.5
53	FIST Chemistry Department	Department	DST	82.5
54	An investigation of energy consumption of machine tools	Dr. Girish Kant	BITS-ACRG	9.65
55	Design of Non asynchronous SRAM cell for hybrid cache architecture using CMOS-FDSOR/FinFET technology	Dr. Nitin Chaturvedi	BITS-ACRG	5.25
56	Investigation of ductile characteristics of high strength concrete beams reinforced with high strength steel and basalt fibre under elevated temperature conditions	Dr. G Muthukumar	BITS-ACRG	9.75
57	Particle Image Velocimetry studies on a bench scale cold flow fluidized catalytic cracking (FCC) riser unit	Dr. Priya C Sande	BITS-ACRG	10
58	Dual Catalytic monolith reactor for biogas reforming	Dr. Srinivas Appari	BITS-ACRG	8.25
59	Interseismic coupling and asperity distribution in Northwest Himalaya	Dr. Sumanta Pasari	BITS-ACRG	8.95
60	Theoretical Study of Electron impact double ionization of atoms and molecules	Dr. Rakesh Choubisa	DST	20.44

## Projects completed

S.No.	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
1	Design and Synthesis of Heavy metal based aggregation induced emission active complexes and their application in Bio-imaging	Dr. Inamur Rehman lashkar	DST	34.9
2	Developing and Validating Relationship Management Index for Indian Airline Industry	Dr. Jyoti -PI Dr. Arun Kumar-Co-PI	ICSSR	1.5
3	Role of histone ubiquitination & angiotensin converting enzyme-2 in the development renal fibrosis under type 1 diabetic condition	Dr Anil Bhanudas	CSIR	19.36
4	Nano-formulation of Lysofylline-fatty acid conjugate for effective treatment of diabetes	Dr. Anupama Mittal	DST	26.9
5	Combination delivery of small molecules and microRNA for treatment of locally advanced and metastatic breast cancer	Dr. Deepak Chitkara	DST	27.2
6	Exploring the Antiobesity potential of selected ayurvedic medicinal plants using pancreatic lipase inhibition assay and synergy guided fractionation	Dr. Paul Atish	DST	27.3
7	Development of Novel Processes for Increasing the Content of Sennoside-B from Senna	Dr. Sunil K Dubey	Shashi Phytochemicals	18.00
8		Dr. Sunil K Dubey	Axis	2.07



S.No.	Project Title	Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs
			Clinpharma	
9	Effect of partial replacement of cement with marble slurry on concrete	Dr Anshuman	DST	28.38
10	Dynamic buckling analysis of composite structures	Dr S N Patel	CSIR	9.33
11	Padagogy Project	Dr. A. K. Sarkar	IIT Kanpur	49.00
12	Flow through a membrane modeled of Porous cylindrical particles using particle-in-cell approach	Dr Ashish Tiwari	DST (Indo-Russia)	12.86
13	Introducing Cyno Bacterial bicarbonate transporters in C3 plants in enhanced photosynthetic performance	Dr. Sandhya Mehrotra	DST	37.72
14	An Economic Appraisal of Renewables Versus Non-Renewables: A Case of Rajasthan	Dr. Krishna M	ICSSR	2.00
15	Development of p-Tio2 nanoparticle decorated n-Tioc nanotube array based p-n homojunction sensor device for the efficient detection of methanol contamination in alcoholic beverages.	Dr. Arnab hazre	BITS-ACRG	9.00
16	design and synthesis of a novel biomass stove for cooking applications	Dr. Pratik N Seth	BITS-ACRG	9.00
17	development of low carbon ternary cement for durable and sustainable concrete	Dr. Baharudeen A	BITS-ACRG	9.25
18	multimodal biometric based person identification system	Dr. Pawan Ajmera	BITS-ACRG	9.00
19	Wireless network virtualization: IEEE 802.11 test-bed implementation and wireless NIC virtualization	Dr. Vishal Gupta	BITS-ACRG	8.5
20	Design and synthesis of multi-functional smart low molecular weight gelator	Dr. Rajeev Sakhuja	BITS-ACRG	4.5
21	sustainable catalytic route to C4-C6 carboxylic acids/hydroxyacids by carbonylation of polyols	Dr. Bhibas Sarkar	BITS-ACRG	5.5

The details of these projects are given in individual department write-ups (B1.10.1 to B1.10.13).

#### International Programmes & Collaboration Division

To strengthen international collaborations in year 2018, the institute has signed two Memorandum of Understanding with leading universities including (i) National Cheng-Kung University, Taiwan (April 2018), (ii) Trinity College Dublin, Ireland (February 2018). To gain professional knowledge in addition to expanding academic and cultural horizons, 48 students of the institute completed their summer internships in prestigious institutes of countries including Canada, USA, UK, Germany, Singapore, Japan, Ireland, Israel Italy, Switzerland, France, Spain, Malaysia in year 2017-18. Forty-six students spent one semester abroad in prestigious institutes/universities to complete their first degree theses. Mr Sishir was chosen for prestigious internship under S N Bose Scholars Program of Indo-USSTF to work at Lawrence Berkeley National Laboratory. Mr Siddharth Uppal received internship under Khorana Program for Scholars to gain experience in world-class research facilities of Duke University, North Carolina. The institute has seen a rise in the number of foreign visitors, having twenty four of them this year. Awareness about international programmes has increased very much through interactive sessions organized by IPCD.

#### Software Development and Educational Technology Unit

The Software Development & Educational Technology Unit (SDET Unit) incorporates the Centre for Software Development (CSD) as well as the Centre for Educational Technology (CET). The Unit has a mandate to include identification, establishment, deployment and evolution of appropriate educational technology in order to support effective resource utilization of expertise (teaching / mentoring / collaboration) available at various campuses (both existing and upcoming) as well as enable students and faculty involved in various off-campus work-integrated learning programs of the Institute. Research, development and consultancy in those areas of computing where it has expertise and interest amongst its nucleus members remain the other

important areas of the work for the SDET Unit.

The SDET Unit has four specific sets of activities handled by its two wings: CSD and CET. These wings focus on multimedia, E-learning, web-services, live and stored video streaming as current thrust areas. Its CET wing has its mandate to identify suitable educational technology solutions for on as well as off-campus operations of the Institute and helping in their deployment.

The SDET UNIT is involved in the Open-source Moodle LMS based deployment for requirements of the Institute in form of the Nalanda portal, apart from focusing on the design / development / deployment of the Internet-based distributed learning architecture and synchronous as well as asynchronous-delivery-based content development. In addition, it has complementary features of Digital Video delivery over the Internet. Three phases of this project have already been completed. For quite some time now, it has added the live interactive (bi-directional audio/video/text-based) classroom feature to value add its off-campus student population.

The SDET Unit has played the leading role in co-designing and establishing (along with alumni of the Institute) a University-wide, Integrated immersive Telepresence Infrastructure with seamless support for very high-quality eye-to-eye contact based meetings between people present in four telepresence rooms across all four campuses of the Institute along with integrated multi-campus interactive lecture delivery and recording support for four class rooms spread over all four campuses of the Institute which have been further integrated with the interactive-web-conferencing system capable of involving numerous live interactions amongst faculty and off-campus students along with recording and view-on-Demand capabilities. This has been done as part of the BITS-connect 2.0 initiative and has benefitted from significant contributions from BITS Pilani and BITS Alumni spread over the Globe.

In the past, the Unit had been involved in the Journal Server Project which is a freeware international virtual digital library project, being led by Oxford University and BITS, involves over fifteen major universities in UK, India, USA, Norway, Italy, South Africa, Germany, Pakistan, Taiwan and Bangladesh, BITS had contributed to the overall architecture and Search Engine aspects of this project..

The SDETU has played a major role nationally and internationally in several areas including the research, development and deployment specific to the next-generation internetworking technologies like IPv6. It has brought several firsts to BITS and has contributed to funded international research projects in this area.

Members of the team have also presented, the research and development work being done at BITS at several international fora apart from being actively involved in IEEE and IETF activities in the area of networking research and standardization. In addition, the SDET Unit is the official enabler for the BITS-BITSAA joint venture known as Project Embryo (<http://www.embryo.org>) that is aimed at joint efforts by current students, alumni and faculty for delivery of live lectures by specialist alums as well as joint collaborative research guidance by alums and faculty to on-campus students.

#### Centre for Educational Technology (CET)

The Centre for Educational Technology (CET) is the second of the two major centres run by the Software Development and Educational Technology Unit (SDET Unit) at BITS-Pilani. It comprises of modern digital video studio and is equipped with the high-quality Video-conferencing facilities.

This is further complemented by the Internet-based, highly scalable distributed desktop video-conferencing facility allowing medium-quality but more interactive live classroom sessions where all students cannot come to on or off-campus classrooms and may be resident in different parts of country / world. The Centre is equipped with the IP-based Video-on-Demand and Scheduled Video Multicast facilities which can allow reuse / review / streaming of lectures delivered earlier for the benefit of students. Incidentally, the above referred Project Embryo makes effective use of this technology already and allows ALL campuses of BITS-Pilani to be benefitted simultaneously whenever an Alumnus expert delivers a scheduled lecture from elsewhere in the world.

Its focus is on E-learning delivery systems, related web-services, live and stored video streaming as current thrust areas. Its mandate is to identify suitable educational technology solutions for on as well as off-campus operations of the Institute and helping in their deployment.

The CET has played the leading role in co-designing and establishing (along with alumni of the Institute) a University-wide, Integrated immersive Telepresence Infrastructure with seamless support for very high-quality eye-to-eye contact based meetings between people present in three Telepresence rooms in three campuses along with integrated multi-campus interactive lecture delivery and recording support for three class rooms spread over all Indian campuses of the Institute which would be further integrated gradually with the interactive-web-conferencing system capable of involving numerous live interactions amongst faculty and off-campus students along with recording and view-on-Demand capabilities. This has been done as part of the BITS-connect 2.0 initiative and has benefitted from significant contributions from BITS Pilani and BITS Alumni spread over the Globe.

CET has evolved a sustainable dual-purpose large-scale open or partly-closed global instruction delivery system for BITS Pilani built atop the Open edX™ Platform of our own known as 'Any-Learn™' accessible at the URL: <http://any-learn.bits-pilani.ac.in>.

Currently, the CET, in association with the Teaching-Learning Centre (TLC) of the BITS Pilani and the CET, IIT Kharagpur is in process of expanding its operations in Pedagogy-research-driven Educational Technologies and is also gearing up for significantly contributing towards creating technology-assisted, low-cost sustainable solutions aiming at helping rural-and semi-urban school children as well as creating a focused skill-development framework for select high-priority skillsets for the nation.

#### Center for Biotechnology

The Centre has in-house facilities of Genetic Engineering and Recombinant-DNA Technology. The objectives of the Centre are to take up research and development projects from various sponsoring organizations, establishments of University-Industry linkage through various R&D contract projects and conduct periodic Workshops and hands on training for faculty members, industry personnel and students in the area of advanced molecular biology/biotechnology and bioinformatics. The facilities available are Gel Documentation System, PCR Machines (Gradient and Real-Time), Hybridization oven, Gel electrophoresis equipments, UV-Cross linker, Temperature Controlled Water Bath Shaker, Refrigerated Centrifuges, Ultracentrifuge, FPLC, Nanodrop, Concentrator, Cold Room, Tissue Culture Room, Plant Biotechnology facility, Semi-automated Green House, Radioisotope handling facilities, Liquid Nitrogen Plant, Victor-3 Multichannel counter, Gene Gun, Inverted microscope with camera attachment, Fluorescence Microscope, Oxygraph, – 80°C Deep Freezer, etc. We developed Insectory to facilitate research on mosquito borne diseases. In the year 2015-16 approximately 75 students were trained in molecular biology techniques through various laboratory courses. Over 50 students completed their projects in the area of modern biology. A conference entitled "BITS conference on Gene and Genome Expression" was conducted during February 18-20, 2014 at BITS Pilani, Pilani Campus, India by the centre with the support from Biological sciences department, Department of Biotechnology, India, and Dept. of Science & Technology, Rajasthan.

#### Centre for Desert Development Technologies (CDDT)

The Centre for Desert Development Technologies (CDDT) was established in April 2005 as in Alumni initiative at BITS-Pilani in collaboration with Jacob Blaustein Institutes for Desert Research (BIDR) of Ben Gurion University (BGU) – the acknowledged global leaders in making the desert bloom through their demonstrable success in the Negev Desert [[www.bgu.ac.il/bidr](http://www.bgu.ac.il/bidr)]. The C-DDT mission is to make the desert areas of Rajasthan bloom through demonstration, extension, and development of world class desert development technologies-water and energy conservation in irrigation systems, rain water harvesting and ground water management, conservation and propagation of plants suited for the desert environment, and optimizing human existence in the desert ecosystem. The C-DDT vision is to develop a multi-disciplinary center of excellence to demonstrate the role that various technologies play in desert development and to assess their socio-economic impact on the inhabitants. The key disciplines involved are Civil, Chemical, Electronics and Electrical Engineering; Plant Biotechnology, Solar Energy, and Humanistic studies. A water management system consisting of rainwater harvesting pipelines, tank, solar pump, drip irrigation system, biotechnology complex consisting of a plant tissue culture lab, and a greenhouse were constructed. A four rooms complex has been created to study the use of solar energy in passive architecture with support of UGC. The different studies are being carried out related to energy saving techniques. It implements the new energy efficient static sun-shade, cavity walls, wall with brick projections, roof with stoneware and vents to show case the energy efficient house to reduce the active load for comfort conditions. An extended roof top with hard sloping floor are constructed to harness more rainwater and drainages are connected to main tank, which is also covered to reduce the evaporation with the helping contribution of 79 batch. This year further extension is created by developing the concept of contour irrigation. It is expected that this summer we can have crop using only rainwater effectively. A good number of International publications are made and a Ph.D. along with number of projects are completed by students. It is expected that this summer the micro and macro irrigation system will be developed and implemented. A group of undergraduate students is working.

#### CENTER FOR ENTREPRENEURIAL LEADERSHIP (CEL), BITS PILANI

##### ALL EVENTS IN 2018

1. Entrepreneurship Week (28<sup>th</sup> Jan – 4<sup>th</sup> Feb): A week dedicated to events centered around entrepreneurship and to equip students with important skills associated with starting up. The start of the event was marked by an inauguration ceremony, followed by 6 events in the subsequent days.
2. Startup Weekend Pilani (23<sup>rd</sup> -25<sup>th</sup> Feb): Startup Weekend is a globally renowned hackathon, backed by TechStars and Google for Entrepreneurs, wherein participants develop a Minimum Viable Product (MVP). It was 54hr hackathon, with over 8 mentors, 5 member judging panel and over 50 participants.

3. Entrepreneurship summit (23<sup>rd</sup> – 25<sup>th</sup> Feb) : The summit consisted of a talk by Dr Anil K.Gupta , IIM-A Prof; President - SRISTI Foundation; Founder - Honey Bee Network, also a Padma Shri Awardee. The topic of the talk was "Heralding the Millennial Wave of Grassroot Innovation". This was followed by a Panel discussion which consisted –
  - i. Sanchit Sethi, CEO StayUncle
  - ii. Jay Chopde, COO Emergys
  - iii. Shakti Goel, CTO Faircent
  - iv. Vineet Singh, CBO Mobikwik
  - v. Gaurav Kachru, Founder 5ideas
4. Guest Lecture by Mr. Nishant Rao , CEO - Sirion Labs ; Advisor - Sequoia and Accel; Ex-MD LinkedIn India and Ex-COO FreshDesk (24<sup>th</sup> March) : The topic of the lecture was 'Being the Best Entrepreneur you can be'.
5. Guest Lecture by Mr. Venk Krishnan , CEO of NuWare; MD of Nu Ventures (4<sup>th</sup> April) :The topic of the lecture was 'Lessons for the early stage Entrepreneur'.
6. Workshop on Open Source (11<sup>th</sup> April) : The following workshop was conducted in collaboration with Coding Blocks conducted by Anuj Garg.
7. Workshop on Game Development (12<sup>th</sup> April) : The following workshop was conducted in collaboration with Coding Blocks conducted Harpreet Singh who is a JavaScript mentor.
8. Summer in a Startup (SiS) (April – August): A platform to provide summer internships to students on campus in prominent startups across the country. CEL in collaborated with HelloIntern for the same. 262 students applied in 2018 and 16 were shortlisted.
9. Conquest (15<sup>th</sup> Feb – 30<sup>th</sup> June): Startup Launchpad Program. The features of the program were –
  - Mentoring Sessions for the Top 50 startups at Delhi, Bangalore & Mumbai
  - Free space to live at studios at The Hub, Bangalore.
  - Free 24x7 working cabins for startups at BHIVE, Bangalore
  - Resources worth INR 1Cr to the finalists.
  - Weekly Mentoring Sessions
  - Investment Workshops
  - Guranteed Investment Oppurtunity
  - Online Mentoring Platform:
  - Grand Finale at Sheraton Grand, Bangalore.
10. Indo German Workshop on Entrepreneurship (18<sup>th</sup> September) : Jointly organized by TU Braunschweig, Germany and CEL, BITS Pilani under the support of the Indo-German Centre for Sustainable Manufacturing & Entrepreneurship.
 

The objective of the workshop was to raise awareness and educate the participants about the growth of the Indian startup ecosystem, the idea of entrepreneurial universities, the role of AI and IoT in Industry 4.0, and sustainability in entrepreneurship. The workshop had lectures delivered by eminent German and Indian Industry heads.

Prof. Reza Asghari from TU Braunschweig conducted a special focused workshop on Business Model Innovation for Startups .

In addition to that, there was a panel discussion, which featured the likes of,

  - Arpit Agarwal - Principal, Blume Ventures
  - Sanjeeva Shivesh - Founder & CEO, The Entrepreneurship School

- Chintan Bakshi - CEO, Startup Oasis
  - Sujit Panigrahi - Co-Founder & CEO, Sequoia Fitness
  - Vineet Singh - Ex CBO, Mobikwik
11. BITSian Entrepreneurship summit (23<sup>rd</sup> October) - An all-BITSian Entrepreneurship Summit, amassing some of the most accomplished BITSians in the field of business and technology. The schedule for the day was as follows:
- 5-6 PM: Fireside chat with Sanjay Nath (Founder & Managing Partner, Blume Ventures)
- 6-7 PM: Panel Discussion with participation from:
- Sajith Pai ( Director at Blume Ventures)
  - Sanjay Kaul (Ex-Apple India Head, CEO at Sofyx, Batch of 1991)
  - Arjun Sinha Roy (Director- Strategy at Zenith System, Batch of 1994)
  - Karthikeyan Krishnamurthy (Chief Revenue Officer at Exotel, Batch of 2000)
- 8-9:30 PM: Closed-door networking dinner with all the guests in VFAST.

Startups incubated during Jan 2018 to Dec 2018

1. Pepper Global LLP: Pepper Global LLP is a content-mediation platform that powers content creation for companies across 150+ content categories and 10+ content verticals. It has a network of over 120+ writers called the Pepper Cloud. Pepper is using data intelligence and NLP to revolutionize the way content is being created. Pepper has made tremendous progress in terms of revenues and has gained increasing recognition for its efforts to bridge the gap between writers and companies.
2. helloVoRld:
3. Gnomikx Private Limited
4. Aiken:
5. Turtle Learn: Preincubation aims to create a futuristic M.L. based E-Learning platform tailor-made for students preparing for their competitive examinations. With our own testing platform we are currently looking at a new session launch.
6. Safemaps: Preincubation

#### Centre for Materials Science and Technology

The objective of the Centre for Materials Science and Technology is to develop and implement projects related to modern materials such as smart materials, biomaterials, fibre-reinforced plastic composites and also related to conventional materials such as metals, ceramics and polymers. The Centre undertakes mechanical and non-destructive testing of various engineering materials and products for evaluating their mechanical properties and for evaluating defects such as cracks, voids, delamination, inclusions etc. Other activities include providing consultancy related to materials aspects and testing/development and analysis in the field of materials science and technology in general. The testing facilities available at the Centre include a conventional Universal Testing Machine of 50 Tons capacity, as well as, a fully computerized microprocessor based Electronic Universal Testing Machine of 100 kN capacity, Heating Chamber for UTM for High Temperature Testing, Hounsfield Tensometer, various hardness testing machines such as Brinell, Rockwell, and Vickers Hardness Testers, Rotating Bending Fatigue Testing Machine, Combined Bending and Torsion Fatigue Testing Machine, Strain-gauge testing facility, Izod Impact Testing Machines, Digital impact testing machine, Double disk polisher, Inverted Metallurgy Microscope, Erichsen cupping tester, Single Screw Extruder with Calendering and Pelletization Facilities Ultrasonic Flaw Detectors, Liquid Penetrant Test kit, Magnetic Crack Detector, Eddy Current Tester, Acoustic Emission Testing equipments, Acousto-ultrasonic pocket hand-held AU scanner etc. Wet-lab facility and fume hood for polymer fabrication section. Basic Mechanical fault simulator, Data acquisition system for vibration measurement.

#### Centre for Robotics and Intelligent System

The objective of the Centre for Robotics and Intelligent Systems (CRIS) is to develop prototypes that provide greater intelligence and higher versatility for robotic tasks under ever-changing constraints of the environment. This objective is set forth to make Indian industry competitive by developing indigenous technical skills, manpower and innovative spirit. Each prototype is developed in four different stages viz. (i) Conceptualization, (ii) Algorithmic development and verification in simulated environment, (iii) Real-time testing and (iv) Integration of automated system.

The Centre is well equipped with excellent computational facilities; advanced software packages for circuit design, image processing and mechanical design; micro controller and DSP based driver card for real-time experimentation; experimental bed, Pendubot (inverted pendulum), CRS-Plus robot manipulator, 4-DOF SCARA manipulator, 5-DOF articulated manipulator, ABB-1410 Industrial Robot, Hydra mobile base, Lab mate, mobile base, Allen Bradley PLC Micro Logix 1500, PLC based Hydraulic and Pneumatic Trainers and many other facilities.

The center is geared to provide research facilities in areas such as intelligent robotics and system design, intelligent control, neural and fuzzy neural based system modeling and control, evolutionary computation, robotic vision and virtual reality. Earlier BITSUMO, which is an autonomous assistant robot, was developed to work in restaurant/ library. In addition to these, an autonomous glider, an autonomous hovercraft, a 14-DOF robotic arm, an intelligent mechatronics ball, a micro-mouse platform and a micro-mouse testing base were developed at CRIS.

The center is engaged with the development of humanoid robots. The first breakthrough is in terms of Acyut-1 and Acyut-2 (humanoid). Acyut-1 is a dancing robot and which has won several laurels even at international competitive events (Rob games 2008 held at San Francisco, USA and INDEEN Expo, Germany etc.), Acyut-2 is much larger and far more capable. It has far better control and using remote command by way of hand movements etc, it can be moved synchronously. These models were demonstrated for their capabilities at Korea, USA, Germany and Japan. The students are currently working on further developments related to Acyut-2 robot with added features Acyut-3 had participated in FIRA-2010, Bangalore and created a world record in weight lifting (2.4Kg.) in year 2010.

In same year a mobile Robot (named SHAURYA) participated in Annual student contest organized by DRDO, India and received recognition. Team Acyut have showcased their technologies at in the Tech fest of BITS Pilani Dubai campus and IIT Kanpur, Robotics symposium of RDE Pune (DRDO) and Tech test of NIT Calicut. For their effort the team has been appreciated by scientists of BARC Mumbai and DIT New Delhi. The students working at CRIS has developed a number of models and working robots. Namely, humanoid Acyut-4 had been invited to participate in ROBOCUP-2013. AcYut was redesigned completely and a novel system of parallel links is introduced. It stood 2nd in Robocup Iran Open 2013 and stood 4th in Robocup Netherlands 2013. Based on the progress in the area of humanoid robotics, Department of Information Technology (2012-2014) has sponsored a project worth 45 Lacs to develop a humanoid which is capable of stable walking and navigate in a structured environment. The team has continually improved the software for the robot to incorporate artificial intelligence and computer vision. Acyut can now play autonomous soccer against another robot and score goals. In February 2015 team AcYut demonstrated humanoid walking and image processing technology in HiSens Workshop at IIT Delhi. In July 2015 the team participated in RoboCup China in Teen Size humanoid league. Continuing the good work from previous years, this year saw development in software modules with better algorithms for cognition. Other improvements include up gradation of the camera sensor to new Fish Eye lenses and implementation of feedback system for more stable gait. The CRIS research incorporates with all aspects of creating and controlling robots such as mechanical design, dynamics, perception, control and decision making. Current faculty researches includes projects in the following areas: Humanoid robot, computer vision, motion planning and control, Machine learning for robotics, sensors/actuators and robot design, Bio-robotics. Team AcYut, BITS Pilani's humanoid robotics team, participated in the RoboCup 2017 held at Nagoya, Japan. Team AcYut has been the only participant from India, both in this edition and in previous editions. This year, they participated in the Humanoid Soccer League and the Humanoid Soccer Drop-in league, where they finished fifth and third, respectively, out of a total of 8 teams. In March 2018, a student team developed Buddy Bot for DRDO competition and became west zone topper. The team participated in the National Level finals competition and won a prize worth Rs. 60,000. Currently the same team is in the process of developing a driverless car with the developed technology and have achieved the autonomy level II so far and working for autonomy level III.

#### Centre for Renewable Energy & Environment Development (CREED)

CREED is an interdisciplinary Centre that co-ordinates educational and research activities in the active areas of renewable energy and environment. The objectives of the Centre are (i) to conceive, develop and implement renewable energy applications and environment protection projects, (ii) to develop courses and organize awareness programmes, and (iii) to collaborate with external organizations in the areas of renewable energy education, training and technology development. Some of the existing facilities at CREED include an experimental set up for solar water heating, solar air-heating system, solar stills, and solar photovoltaic power pack with storage battery bank, SPV lighting systems, fluidized bed combustor with gasifier and various instruments related to energy audit and solar resource assessment.

Currently, active research areas of CREED include concentrated solar power and concentrated photovoltaic power based policy analysis, emissions and environmental impact of thermal power plants, planning and economics of renewable energy systems, real time operation and control of renewable systems, industrial cogeneration, integrated renewable systems, demand side management, clean development management

integrated resource planning, CO<sub>2</sub> based refrigeration, biomass based fluidized bed combustion, biomass pyrolysis etc. The faculty members and research scholars of the center have also visited University of South Florida, USA and TU Braunschweig, Germany for the research purpose under institute's schemes.

The Renewable Energy Club is an exclusively a student managed body that operates under CREED. The Club has undertaken active work in organizing Green Week, Goodbye Earth, competitions, quizzes, invited talks, e-waste collection drives, carbon footprint analysis and carbon credits. The club has also participated in participated in the competition Wipro Earthian. Commercial organizations in these areas have evolved out of this club, and are currently owned and operated by BITS alumni.

## CENTRES ESTABLISHED WITH STRONG INDUSTRIAL SUPPORT

### Embedded Controller Application Centre

Devesh Samaiya (Lab in-charge), Prof. S Gurunarayanan, Dr. Vinay Chamola, Mr. G Sai Sesha Chalapathi.

This Centre was initially set up in Collaboration with Motorola India Ltd. The objective of the Centre is to impart detailed understanding of important features of embedded controller architectures and familiarization to advanced concepts in the field of embedded controllers through

- Students projects/Industrial projects
- Imparting training to the industry professionals and running short term courses in the field of Embedded System design
- Developing course modules

The infrastructure of the centre includes high performance general purpose computing machines, Microcontroller Modular Evaluation Systems, Microcontroller Development Systems, Single Board Computers, Emulators, Assemblers and Cross compilers for various microcontroller families (NXP, TI, ARM, ATMEL, Microchip, Cypress, ST Microelectronics) DSP processors and a plethora of discrete components.

Faculty members of the group are involves in research work in areas of Embedded System, Wearable Computing, Multimedia computing and Embedded Linux systems. Faculty has published research work, attended National and International seminars, conferences and invited talks.

Centre also provides space for operations of Team Anant, Student Nano Satellite project by BITS Pilani, Pilani Campus. We have received embedded systems development related tools and hardware kits from Texas Instruments India under an MoU signed with EEE Department, BITS Pilani. The Centre provides support for FPGA based system design and has facility for Xilinx Atlys, Gensys, Zedboard boards and camera interface.

### Teaching Learning Centre (TLC)

- TLC organized a guest lecture by Mr. Sharad Sagar, an educational entrepreneur on 25 January 2018. The talk was targeted at students and faculty members.
- TLC organized a lecture by Prof. William Oakes, Director EPICS Program, Purdue University, Indiana USA on 16 March 2018. Prof. Oakes talked about the EPICS program under which they work on collaborative projects on the use of science and technology to solve an identified issue pertaining to society. He described the possible avenues for BITS Pilani students to join this program.
- TLC organized Intensive Teaching Workshop (ITW)-Part II for the newly inducted faculty members during March-April 2018. 15 new faculty members across disciplines attended the workshop. Apart from TLC core team members, Prof. V.K.Choubey, Prof. Surekha Bhanot, Prof. S.B.Singh, Dr. Sharad Srivastava, Dr. J.S.Rathore, Prof. Devika, Dr. S. Murugesan, and Dr. Manoj Kannan acted as resource faculty for this workshop.
- Teaching Learning Centre (TLC), BITS Pilani, Pilani Campus organized a *2-day national workshop on Improving Synergy between Teaching and Research in Indian Academia* during 26-27 March 2018. The inaugural function of the workshop was graced by the Vice Chancellor, BITS Pilani, Prof. Souvik Bhattacharyya and the Director of BITS Pilani, Pilani Campus, Prof. Ashoke K Sarkar. Prof. Mangala Sunder Krishnan from IIT Madras was the chief guest. Faculty incharge, TLC and Chairman of the workshop threw light on the theme and the planning for the workshop. Prof. Sarkar in his address emphasized on the need for strengthening teaching by bringing new knowledge gained through research. Prof. Souvik Bhattacharyya in his address also highlighted the need for synergy in teaching and research and emphasized that passion is required for both teaching as well as research. In his key note address, Prof. Mangala Sunder Krishnan talked about the importance of using technology to strengthen both teaching-learning and research. He also appealed to faculty members and institutions

which have resources to help other organizations improve their teaching and research. The inaugural function concluded with a formal vote of thanks by Dr. Rajeev Sakhuja, Convener of the workshop.

The first day of the workshop also witnessed plenary talks by Prof. Sourav Mukherji, Dean of Academics, IIM Bangalore, and Prof. Lakshminarayanan Samavedam, National University of Singapore. Dr. Tamali Bhattacharyya, Research Consultant, TLC, along with a few faculty members presented some of the teaching experiments which they have been recently conducting at BITS Pilani. The workshop also had a students' panel discussion on the Synergy between Teaching and Research where student representatives from IIT Madras, IIT Roorkee, BITS Pilani, Dubai Campus, Hyderabad Campus and Pilani Campus participated in the discussion. The panel discussion was moderated by Dr. Tapomoy Guha Sarkar. About 70 participants attended the workshop.

On the second day of the workshop sessions were conducted by Prof. Sudhirkumar V Barai from IIT, Kharagpur, Prof. Deshdeep Sahdev, formerly at IIT Kanpur and currently CEO, Quazar Tech, and Prof. KS Sangwan, BITS Pilani. A Leaders' Panel was also organized where Prof. Sumeet Tuli, Dean of Engineering education, Bennett University, Greater Noida, Prof. M B Srinivas, Dean of Engineering education, BML Munjal University, Gurugram, Prof. Rahul Banerjee, Director, LNMIIT, Jaipur, Prof. Shan Balasubramaniam, Dean, Academic Resource Planning, BITS Pilani participated as panelists and shared their views on the theme of the workshop. The panel discussion was moderated by Prof. A.K.Sarkar, Director, BITS Pilani- Pilani Campus.

- TLC in collaboration with BITS Library organized a writers' workshop titled "Inside a Publisher's Mind" on 16 April 2018 at NAB Auditorium. More than 100 faculty members and research scholars had registered for this workshop. This workshop was conducted by Editors from Taylor and Francis
- TLC organized a guest lecture by Dr. Kamal Kumar Chaudhury who has an expertise in the area of Psycho/Neurolinguistics, Language and Cognition. His talk was organized on August 25, 2018

A new TLC committee was constituted by the Director under Dr. Kaushar Vaidya in September 2018.

- The TLC had its first guest speaker in Mr. Scott Hartley, a Venture Capitalist and author of the book "The Fuzzy and The Techie". He delivered a lecture to BITS students on "Human Skills in our Technical World" on September 10, 2018.
- The TLC also conducted an Intensive Teaching Workshop (ITW) for 16 newly recruited faculty members. The entire exercise was divided into two major segments: ITW 1 and ITW 2. The ITW 1 saw ten modules presented by various domain experts. The inducted faculty members enjoyed the background information provided in these sessions and enthusiastically interacted with the resource faculty. The ITW 2 saw two presentations by the participating faculty members, one only based on blackboard, and, the second a mixed presentation involving board work and slides. The 16 members were divided into three groups with 6 resource faculty on each group, for interacting and giving feedback. The inducted faculty members were also given options of sitting in "open" classes to have hands-on experience on pedagogical practices that they could emulate from their colleagues. Few faculty members from various departments "opened" up their classes for the same. The participating faculty members liked this experiment very much.
- On 17/11/2018, the TLC, along with the Humanities and the Social Sciences Department, Pilani Campus, hosted Prof. Saikat Majumdar, a noted writer and a faculty member at Ashoka University. A panel discussion titled "Undergraduate Education in India" was organized based on Prof. Majumdar's book, "College: Pathways of Possibility", where Prof. Ashoke K. Sarkar, Prof. Chandra Shekhar and Prof. Sanjiv K. Choudhary participated along with Prof. Majumdar. Dr. Manoj Kannan moderated the panel discussion.

## B1.12 CENTRAL FACILITIES REPORT

### Central Library

The Library collection is 244822 volumes and during the year, 1579 new books were added to the existing collection in various disciplines of Science, Engineering, Technology, Pharmacy, Management, Humanities and general reading materials.

186 print journals and 36 online databases were subscribed. The online resources now cover more than 41968 e-journals for accessing full-text articles and databases related to company and industries. The Library received 114 Theses in print and soft-copy format submitted by the Researchers leading to PhD Degrees.



As part of University-wide service called Inter-Library Document Request Service (ILDERS) the library has retrieved, downloaded and sent 1582 articles/ book chapters from various databases and resources requested by faculty members and Research scholars of other campuses i.e Goa Dubai and Hyderabad. During the year total 32,073 books have been issued from the library by the students, researchers, staff and faculty members for their academic and research purpose. Online catalogue users in last three and half years are 701058. Total number of hits on the library portal-infoBITS for last three years is 146061

Library has uploaded over 8200 news links on the library Portal's "Daily News" and has produced monthly infoBITS Bulletins covering 12 different subject areas. The new Brainstorm Room as attracted nearly 5000 students for various deliberations, Group Discussions, Brainstorming sessions and this facility was booked by the students 288 times in 2018.. The library also opened a new Group Discussion Room this year which is being heavily used by the students.

As a part of MOU with UGC INFLIBNET, the library has provided URKUND anti-plagiarism software access to all faculty members and it is now the part of the library portal.

The library has set up a new and renovated Text Book Counter where the prescribed textbooks are being made available for quick access. These books are also issued for overnight reading books are being preserved for posterity. The library staff have been trained to preserve the rare books which are in a very bad shape with brittle and broken pages using German Tissue Paper nearly 60 rare books have been so far preserved using this technology.

In addition to the above developments the library has organized many events to popularize library services among the library users as well as to promote reading.

- 1) Successfully organized Basant Book Festival-2018 from 29-3rd Feb. 2018.
- 2) Conducted four Library orientation sessions for UG & PG students in the month of August 2018.
- 3) "Creating Inspiring Spaces in the Library!" a brainstorm session to Commemorate Librarians' Day
- 4) Library staff and Management Department meeting on 17th August 2018.
- 5) Library orientation for newly joined faculty members on 20th August 2018.
- 6) Training Session on Academic Search Ultimate: Tuesday, 21st August 2018.
- 7) Celebration of Teachers Day event. An Art Attack on the theme Teaching Learning and 600 Teachers Day cards were distributed among students to present them to their favorite teachers with a personal message on 5<sup>th</sup> September 2018.
- 8) Book display on Teaching and Learning workshop on 29th September 2018.
- 9) Children's Day Celebration on 14th November. Organized "My Creation" drawing Competition for YLS Members.
- 10) "Reading is Magic" and Prize Distribution program was held on 17<sup>th</sup> Nov.18 for YLS Members.
- 11) A Book Release programme : "Robust Plastic Product Design: A Holistic Approach" by Vikram Bhargava (A BITS Alumnus) on Tuesday, 13th November 2018 at 10.00 am
- 12) Training Session on Prowess IQ Database was conducted on Thursday,15th Nov.2018
- 13) "Winter Reading Challenge" between 6-16 Dec 2018 by issuing 1400 books to the students.

#### Facts about the library

The statistics indicate that the Library collection has grown steadily. Some of the significant statistical data about the Library are as follows.

1	Current library holdings	244822
2	Average number of books issued per month	4354
3	Average number of readers visiting the library per month	26828
4	Books added during the year	1579
5	Total number of Theses	1449
6	Number of print Journals subscribed	186 + 11(Newspaper)
7	E-journals made available on library site through online databases	41968
8	CD-ROM collection (including VCDs)	2,397

9	Total number of reading seats in the library	820
10	Total library area	65,000 sq.ft
11	Total number of Library users (members)	5608

### Medical Centre (MedC)

Medical centre is providing quality healthcare services through its team of dedicated specialist doctors. Two doctors, Dr. Sanjana R Bhat, Gynaecologist & Medical Superintendent(o) and medical consultant Dr. R.P.Pareek are fulltime doctors available at the centre while other specialists visit on different weekdays. ENT specialist Dr. H.S.Sankhla visits the centre on every Monday and Thursday evenings, the paediatrician Dr. Karan Singh Beniwal on all Wednesday evenings, the Dentist Dr.Sanjay Katewa on all Saturday evenings, the Ayurvedic doctor Dr.Ramesh Jaju on all Sunday mornings and the homeopathic doctor Dr. Diwakar Pathak is available on all Tuesday evenings. Besides these specialist doctors, a General Duty Medical Officer from Birla Sarvajanik Hospital visits MEDC for evening OPD's.

There is a computerized system for registration, investigations and procurement of medicines from MEDC pharmacy thereby making all records available in a digital format and making all transactions cashless. Medicines from the pharmacy are available on prescription only. The pharmacy remains open till 12 midnight on all working days.

MEDC has a fully equipped 3 bed emergency observation room equipped with emergency medicines and Phillips multi-parametric patient monitor to take care of any medical emergency.

Medical centre has an excellent well equipped clinical laboratory. Besides having fully automated biochemistry and haematology analysers, machines for performing glycosylated-haemoglobin test for diabetes, serum electrolytes and urine comprehensive examination tests are available. Computerized ECG machine, a spirometer and a digital dental X-Ray unit are also available at MEDC. Installation of a new automated immunoassay analyser, for carrying out the Thyroid function test and Serum 25-hydroxy Vitamin D3 test, has been done.

From 16th January 2018-16<sup>th</sup> January 2019, medical centre recorded a total of 16,377 patient visits out of which 11,606 were new registrations. 4085 patients underwent various haematology and biochemistry tests.

Besides curative services, the doctors at MEDC provide preventive services by conducting awareness lectures on various topics of public health importance. The topics covered range from adolescent health, anaemia, nutrition and health, obesity, osteoporosis, diabetes, cardio-vascular diseases etc. Health camps related to BMD –bone mineral density-estimation and sponsored by various pharma companies, to create awareness about osteoporosis are held in MEDC from time to time.

Medical centre in collaboration with Medanta-the Medicity, Gurugaon, Haryana organized preventive health camps twice for the faculty and staff in the months of March (25 /26) 2018 and December(5/6) 2018.Specialists from the departments of Cardiology, Neurology and Oncology provided their services. Around 570 consultations were sought. BP recording, blood sugar estimation and ECG were done. As a part of screening for breast cancer, free Mammography was performed, wherever indicated. An awareness lecture on the etiology and prevention of cancers was delivered by the visiting oncologist.

Medical Centre has been chosen as a primary care centre for BITS employees covered under ESIC scheme since September 2017.Besides the routine outdoor services provided to these patients, special medical camps are being organized for these patients from time to time. The entire process is computerized, the details of which are provided to ESIC on a monthly basis.

In association with the government PHC-primary health centre Pilani, immunization facility is being provided to neonates, infants and children on the 4<sup>th</sup> Thursday of every month.

New additions at MEDC in the year 2018:

- Construction of a new separate washroom facility for all the female patients visiting medical center
- Phillips multi para patient monitor installed in the observation room
- Mini-Vidas-automated immunoassay analyser installed in the laboratory
- Electronic portable power wheelchair made available for patients with injury

### BITS Coop

The BITS Consumers Cooperative Stores Ltd. Continued to extend its services to the staff and students of the Institute. Its total membership as on 31st December 2018 was 4216 consisting of 809 staff members and 3407 students. They were holding 4045 major and 12398 minor shares of the stores. The scope of its activities covers the following:

1. Sale of groceries and vegetables to the staff members;
2. Supply of stationery and general merchandise;
3. Supply of consumables, stationery, equipment and other materials to the Institute and Books to Library;
4. Supply of books to the students;
5. Running a bookshop and organization of a permanent book exhibition;
6. Providing computer and mobile repair services; and Running a Medical Store in the Medical Centre of the Institute.

#### Blossom Kids -Zone (BKZ)

The Blossom Kids-Zone (BKZ) is run voluntarily by faculty wives and it takes care of the pre-school training and education of the children in the age group of three to five years. The center primarily caters to the needs of staff children belonging to BITS and the sister organizations.

#### Institute Functions

Institute functions have been the integral part of BITS as an organization/ institution. In year 2018, BITS Pilani, Pilani campus, as usual practiced in the past, saw the magnificent celebrations of its five institute functions throughout the year viz. (i) Republic Day (26th January), (ii) Founder's Day (Basant Panchami- 22 January), (iii) Ram Navmi- Birthday of Founder Chairman Shri G. D. Birla (25 March), (iv) Independence Day (15th August), and (v) Gandhi Jayanti (2nd October). Herein, students, staff and faculty enthusiastically attended all these functions and graced the occasions. Over all this, there had been the constant and unconditional direction and support of Vice Chancellor, Director, Dean (Administration) and other Deans (divisions) and Unit Chiefs (units) for all these institute functions.

#### BITS House Allotment Committee (BITSHAC)

Estate Management Unit also looks at house allotments to staff members of BITS Pilani (BITS House Allotment committee (BITSHAC). The Primary aim of the BITSHAC is to streamline regulatory guidelines for the allocation of accommodations to Staff members and implement a transparent and a fair policy in a consistent manner so that all applicants with similar eligibility characteristics are treated alike with openness while maintaining individual confidentiality to requesting Staff members, following 'Best Practices and Framework of Guidelines', keeping in mind the circumstantial variability and complexities.

BITSHAC acts in a manner to encourage equal opportunities and will seek to ensure that information on the Allocations Policy gets disseminated in a consistent manner. The BITSHAC invites applications against a circular / notice from Staff members on a monthly basis in a prescribed format or as and when vacancy arises and does the allotment as per guidelines framed. The document on guidelines has been framed and the same implemented in all campuses with slight variations based on local environment.

#### BITS Staff Housing Group

The BITS Staff Housing Group constituted in the year 1989-90 by the Institute. For helping the BITS Staff members for having personal houses in the new campus, "Gyan Vihar". The Institute has provided Rs. One lac Fifty Thousand as soft loan to staff members for the construction of the houses. Forty staff members have constructed their houses and many other staff members are planning to start the construction work soon. Both the sectors have been provided with urban electric supply. Two new-cemented road of 300 feet long has been added in sector number one. Streetlight has also been provided. All activates of the Gyan Vihar are under Public Relations Unit.

#### Recreation Activities Forum (RAF)

The Executive Committee of RAF selected and screened Hindi movies, which were enjoyed by the members and their guests during the year. During the two semesters RAF membership for Hindi movies was as following:

Second Semester	2017-2018	954
First Semester	2018-2019	1180

#### Loan facilities for Staff members

##### (i) Staff Furniture Loan

Under this scheme the staff members get interest free loan re-payable in twenty four monthly installments. Institute provided Rs. 5,30,000/- as loan to 53 staff members for the purchase of various furniture items.

##### (ii) Computer Loan

This facility was started in the year 1999 for the purchase of computer for personal use by staff members

with a simple interest of 6% per annum. It is being utilized effectively by faculty. This year Rs. 30,000/- has been given to 1 staff member for this facility.

(iii) Housing Loan

The Institute provides the housing loan upto Rs. 1.50 lacs to staff members for the purchase/ construction/ renovation of houses.

### Publications and Media Relations

Publications and Media Relations Unit brought out the following publications during the year: (i) Annual Report (ii) Annual Report – a quick glance (iii) BITS in the News (iv) Bulletin (v) BITSCAN magazine. Besides, the unit gave effective support for coverage of Institute events in the media which is evident from the large amount of media coverage BITS received (both in national and local press) during the year. PMRU regularly sent latest news to the web team of the Institute for updating on the Institute website. Also the PMRU team provided support to various departments and student bodies in branding matters while bringing out their publications, posters, brochures, invitations, etc.

### Reprography

The Reprography Section takes care of all the in-house printing, binding and photocopying work, (e.g. printing of institute bulletin, application forms, annual report, various information brochures, time table, academic regulation, educational development division notes, answer booklets and project reports for submission to various Government and other funding agencies). The printing and binding sections have been fully equipped with facilities like desktop printing, computer type setting, drafting, off-set printing, laser printer, cutting, laminating, stitching, spiral binding, etc. Reprography has separate question paper printing/copying facility where the scripts related to assignments, tutorials, quizzes, test and comprehensive examination for all courses offered in on-campus or off-campus programmes are printed.

Apart from Institute work, the reprography section also caters to the printing and publishing needs of staff and students. Services like, photocopying of journal articles, laser printing, binding and lamination of project reports are available round the clock. Reprography also support printing requirements of various student activities like, OASIS, APOGEE, BOSM and other activities undertaken by various clubs and associations. The printing and publication requirement of conferences and workshops organized in the Institute is also supported by reprography.

(i) Communication and allied facilities

The following facilities are available for the benefit of students and staff.

1. Telephones: Each hostel has been provided with a receiving telephone facility placed near the common room.
2. Dispatch facility: All the Institute dispatch requirements are catered through reprography either through ordinary/ speed post facility available at the Vidya Vihar Post Office, Pilani or through private courier and cargo carriers for both domestic and international destinations as per needs.
3. Color Photography Lab: The lab has following facilities: Camera: Olympus Digital SLR Camera E 300, Cannon EOS 500N, Durst Color Enlarger (Model M-670), processing timer, temperature controlled paper processing tank, 35 mm SLR Camera (Pentax K 1000) with flash gun (mega 988 twin), temperature controlled film processing tank with 6 developer tanks, Cannon Zoom Lens EF 75-300 mm Pentax wide Zoom lens 35-80 mm and enlarger timer.
4. Photocopying and allied facilities: Photocopying, printing, word processing, binding and laminating facilities are available for students and staff on charge basis at Reprography section. Photocopying service is also available at the BITS Library.

### Central Workshop

The Central Workshop of the Institute imparts training to the students and caters to the maintenance and fabrication needs of the Institute. Students' training consists of training all integrated first degree students through the course 'Workshop Practice' by imparting skills in various manufacturing processes like machining, fitting, turning, carpentry, smithy, sheet metal, electroplating, welding, etc. In addition, students are imparted training for other courses like 'Production Techniques', 'Metal Forming and Machining', 'Casting and Welding', 'Computer Aided Manufacturing', and 'Flexible Manufacturing Systems'. Apart from routine maintenance, fabrication and training, the workshop also accepts jobs on precision fabrication of project work of students, staff and research scholars.

The workshop comprises the following sections: Machining, Welding, Electroplating, Fitting, Smithy and Sheet Metal, Carpentry, Foundry and Patterns, Tool Room, Metrology, Painting, Metal Processing and Metallurgy, Electrical, Automobile, CNC Training Centre and Store. The major equipments include industrial

vertical machining center (LMW KODI 40 Klein), five CNC trainers (three turning centers and two vertical machining centers), industrial robot (pick and place), five universal milling machine tools, universal cylindrical, centreless, surface (hydraulic), and tool and cutter grinders, gear hobbing machine tool, NC machine tool (retrofitted at workshop), thirty one lathes (centre, turret, capstan, precision and dc supply heavy duty), seven shapers, planner, slotter, twelve drilling machines, ten wood working lathes, two wood working planers, band, circular and universal wood saws, TIG, gas and arc welding equipment, power press, pneumatic hammer, etc. The new building for the workshop is ready. Sustainable Manufacturing and Life Cycle Assessment Lab; Joint Indo-German Experience Lab; and CNC Lab are functioning in the new workshop building.

#### Instrumentation

Instrumentation unit undertakes regular and annual maintenance of laboratory instruments across the Institute.

Instrumentation unit provides LCD projection facility for regular class-work in classrooms, workshops, conferences, symposiums and other academic and cultural activities across the institute. The centre also performs preventive maintenance for these projectors.

The centre facilitates institute programs with high quality Public Address Systems, Digital Mixers and Hi-Fi loud speakers and Lighting equipment to make the events more effective and lively.

Tata Sky dishes have been installed in all hostel's common rooms.

All classes have been equipped with projection facility supported by UPS. Unit has procured some state of art equipment like Kramer switch, Logitech presentation remote, 4 Unit x LED par 64 LED stage par cans light 36x3W RGB DMX RGB Infinite color mixing with Control mode: Work Auto, Sound active, master/Slave, DMX512, LED control panel, Irradiant SRC-146 Lighting Controller, 24 Channel Lighting Controller and Panasonic memory card camera-recorder.

#### Centre for Software Development (CSD)

The Centre for Software Development (CSD) is first of the two major centres that comprise the newly formed Software Development and Educational Technology Unit (SDET Unit) at BITS-Pilani.

The CSD has two wings namely Media Laboratory and the Laboratory for Open Source Computing. Recently, as part of restructuring, the erstwhile Laboratory for Mobile Computing was made a constituent research laboratory of the Department of the Computer Science & Information Systems., under the new name of Wearable, Pervasive Computing Networking Research Laboratory.

The CSD, in the past, has played a major role nationally and internationally in several areas including the research, development and deployment specific to the next-generation internetworking technologies like IPv6. It has brought several firsts to BITS and has contributed to funded international research projects in this area.

In the recent past, CSD had also developed a software for biometric attendance system known as 'e-Attend' that also piloted across all campuses of the Institute.

Members of the team, in the past, have also presented, the research and development work being done at BITS at several international fora apart from being actively involved in IEEE and IETF activities in the area of networking research and standardization.

Currently, the CSD is envisioning creation of a new-age integrated, adaptive web-site for the university and hopes to complete the deployment by December 2017.

#### Information Processing Center

Information Processing Centre (IPC) provides computing facility for students and staff of the Institute. The Centre is responsible for planning, need forecasting and maintenance of computing resources across the Institute. The Center has signed campus agreement with Microsoft and MATLAB for licensing their product & tools. With a view to upgrade the computing resources, across the Institute, 50 desktop machines, 40 Laptops and a few printers & peripherals were purchased. During the year, Centre has been involved in setting up of Wi-fi based 500 node network in girls and boys hostel.

With the augmentation of existing facilities, the Centre has been able to support conduct of online examinations, structured and unstructured labs for more than 30 courses offered by Computer Science and other departments. The center has also been involved in supporting the number of workshops and training programmes conducted in the Institute.

The IPC is open on all days throughout the academic session from 08:00 A.M. to midnight and it is closed

only for 3 days in every semester. The details of existing facilities in the IPC are given below.

The Center has a Blade Servers and 15 numbers of Intel based SMP servers, supporting variety of operating systems and development tools. These systems operate under UNIX and Windows environment and support variety of compilers database and software tools such as C, C++, Lisp, Microsoft Visual tools, MatLab, PSPICE, Rational Rose etc. The Centre has 350 numbers of desktop machines, with Windows 7/ Linux and variety of software tools. The central computing facility specifically takes care of the bulk computing needs of students in their courses, which needs acquiring and use of computer programming skills. It also caters to large number of computer projects of First Degree, Higher Degree and Ph.D. Students.

Apart from the above mentioned centralized computing facility, the Institute has workstations and Pentium machines distributed at various other locations. These Centers are placed near to the locations requiring Computer Aided Modeling & Design, computer-based instrumentation and experiments as well as other activities. In addition to this the various departments have their own computing facility supporting specialized tools.

#### The BITS Intranet

IntraBITS is a collaboration-category intranet portal deployed and supported by the Software Development and Educational Technology Unit (through its Centre for Software Development) since 1999. Its principal objective has been to enable the faculty and students to leverage appropriate software technologies in the On-Campus educational (teaching, learning, sharing) process. The followings are some of the highlights of the BITS Intranet. This portal has gradually expanded to multiple independent sites linked to it.

- Several learning materials, prepared by faculty members over a period, have been deployed on the Intranet. The courseware spans from simple lessons on HTML pages, online presentations, to fully interactive learning applets. 'Intrabits', in this sense, also acts as a Test-Bed for the BITS-VU project.
- In addition, faculty members can upload lecture slides, assignments, notices, lecture notes etc. through the in-house developed Course Management Tool. This tool allows them to carry out grading (Mid-Sem and End-Sem) for their courses. This facility is open only to the Instructor-in-charge of each course. Students can log into the IntraBITS portal and see the material, notices and grading information as published by the faculty member for their benefit.
- In addition, an On-line Learning Management System (Nalanda) built in 2010, atop LAMP and Moodle platforms provides a complementary globally accessible service that aims to serve the entire community, both on-campus and off-campus.
- Recently, an online IPC Complaint Management System developed by the CSD has been integrated with this portal.
- The BITS Intranet is serving as a vibrant medium for exchange of academic and other ideas among students and faculty.

#### Computer Assisted Housekeeping

The Computer Assisted Housekeeping Unit (CAHU) is a central facility of the Institute, which provides centralized information management and processing for Computerized University Administration to all the sections of BITS.

Degree processing and printing: 3253 degrees (Pilani-1307, Goa-742, Dubai-421 and Hyderabad-920) for the 83<sup>rd</sup> award were printed. The degrees were made available on time for the convocations held at different campuses during 2018.

Consequent to the creation of the HR Section, the degree processing & printing has been transferred to the Registrar office (General Administration Unit, Pilani).

#### Human Resource Section

The inception of the Human Resource Section was from September 12, 2018. Subsequent to its creation, CAHU ceased to exist.

The Human Resource Section shortly known as the HR- Section is a facility that maintains the employee personal records, executes the payroll (through ERP), recruits' employees, appraises the employees through the PMS process, organizes training and development programmes for the non-teaching staff, handles the day to day general administration activities for the campus. Some of its key activities are mentioned below:

Activities like appointments, employee on-boarding during recruitment. The Performance Management System (PMS) looks after Promotions, Regularization of the non-teaching staff. Employee Welfare & Statutory Activities like the PF (maintained for all the Indian Campuses), ESIC, Family Pension, Loans (for e.g. Furniture loans, Computer loans & Housing loans) School Education Fee Reimbursements, Medical Bills Reimbursements, Reimbursement of Relocation Expenses, LTC, and any kind of welfare support required for the employees are catered by this office. Issuing Certificates, letters to the staff based on the need. Constant updation of employee information, Disciplinary Actions are some of the major activities handled by this office.

#### Central Analytical Laboratory Facility

Central Analytical Laboratory (CAL) at BITS Pilani, Pilani campus houses many sophisticated instruments, catering to the needs of the various research Departments like Pharmacy, Biological Sciences, Physics, Chemistry and Chemical Engineering etc. The facility is used for training and teaching of the students as well doctoral research. CAL has a spacious area of 2600 sq.ft and an is equipment with latest instruments which include - Stability Cabinets (For stability testing of drugs and organic molecules), UV-Visible Spectrophotometers, UV-Visible-NIR Scanning Spectrophotometer, IR Spectrophotometer, FTIR Spectrophotometer, Scanning Spectrofluorimeter, High Voltage Electrophoresis, Digital Polarimeters, Ultra and Refrigerated Centrifuges, Differential Scanning Calorimeter, Gas Chromatography, High Performance Liquid Chromatography (with auto-sampler and various detectors), 400 MHz NMR spectrophotometer (Bruker AVANCE III) equipped with BBFO probe and auto-sampler and Elemental Analyser (vario MICRO cube) for estimating the elemental compositions of organic compounds. Recently the laboratory has been upgraded with three sophisticated equipments including HPLC (Thermo Fisher Scientific), Thermogravimetric Analyzer (Shimadzu), Centrifuge (Eppendorf). Currently the facility is capable of carrying out research work at all levels including the industrial projects. Apart from using the Central Analytical Laboratory facilities for teaching and training of the First Degree and Higher Degree students, it is extensively used for dissertation and doctoral research, faculty research and consultancy work. It is also used by scientists/faculty from other nearby organizations.

#### Central Animal Facility

Central Animal Facility at BITS Pilani, Pilani campus is a CPCSEA approved facility with total floor area of 5330 sq. ft. The facility is also approved for in-house breeding of small animals. The facility maintains the animal species like Rats, Mice, Guinea Pigs, Rabbits and Hamsters. It was build up in accordance with guidelines issued by CPCSEA and other regulatory bodies. It is also equipped with incinerator (electrically operated) facility for disposal of the biological and other biomedical waste. The air conditioned facility is maintained by well trained personnel, with a full time veterinarian to take care of the various requirements of the animals. Central Animal Facility caters to the needs of the various research departments like Pharmacy, Biological Sciences and Chemistry, etc. The facility also incorporates Pharmacokinetics, Pharmacodynamics and Pharmacology research laboratory for carrying out advanced research in the areas of pre-clinical pharmacokinetics, bioavailability studies, pharmacological screening of various synthetic/natural origin drugs. The laboratory has sophisticated instruments such as two chamber automated organ bath, laser doppler, non invasive blood pressure recorder, semi dry transfer apparatus, microtome, RT-PCR, electroconvulsimeter, actophotometer, analgesimeter, light dark apparatus, rotarod etc. Equipments such as surgical anesthesia machine, electrical cautery, deep freezers (-20 and -80°C) and spare air-conditioners are also utilized. The laboratory is upgraded with video documentation system for various animal behavioral studies. Facility is geared to take up various industrial or governmental funded projects in various pre-clinical areas.

## B1.13 MAJOR MAINTENANCE, RENOVATIONS OR NEW CONSTRUCTION REPORTS

### Maintenance, Renovation and Construction

Apart from carrying out routine maintenance of the Institutional, Hostels & Staff Quarter buildings, Infrastructure facilities like STP, 33KV Sub Station, Roads, Footpath and Street Lights, the following works were taken up during the year either as new construction or as renovation:

#### *Works Completed*

1. Installation of Motion Sensor for lights in Toilet of VK, Krishna, CVR & Malviya–A Bhawan.
2. Added 07 nos. of Street Lights Poles on Paschim Marg & in between Block -500 & 501 to increase illumination on Roads.
3. Commissioned of 950 KWp Roof Top Solar Power Plant.

4. Took over four HT & LT Electric Panel Rooms from Project Parivartan Team, for electric network distribution in the Campus.
5. Did new Electrical wiring in FD-3 for all Chemistry Department Labs with electrical safety protection switchgears.
6. Changed all water filled battery with SMF Battery (Maintenance Free) at all the three Centralized Solar Street Light Control Centre.
7. Installed ten Sanitary Napkin Destroyer machine in 2, 3 & 4 block of Meera Bhawan.
8. Changed 55 normal 36-watt tube light fitting with 18 watt LED tube light, in the Library to save electrical power.
9. 46,500 sq. ft. road surface was repaired by laying 20mm thick PMC.
10. Quarter painting: Internal & External painting was done for 64 & 11 numbers of quarters respectively.
11. Reconstructed 175 feet long damaged Compound wall.
12. Major repair was carried out in six F type quarters.
13. 1000 TR Centralized HVAC system is taken over from Project Parivartan Team and being operated to provide air conditioning facility in FD-I & FD-III.
14. Provided TSE water Supply in Block Nos. 126,142, 143, 500 & 501 for watering Softscape areas.
15. Replacement of existing air-cooling system with split air conditioning in LTC class room no 5102 & 5105.
16. Installation of 110 numbers of M S litter bin stands in Krishna, Vyas & Meera Bhawan and Sports Grounds for better litter management.
17. Procured 2 Nos. E- Garbage Loader for wet garbage collection, which is a step forward towards reduction of carbon footprint in the Campus.
18. Installed 10 Nos. Swach Bharat Abhiyan Slogan Boards in the Campus.
19. Maintaining 5 Nos. dog feeding areas in the campus for stray dogs
20. Planted 1320 saplings in July - Aug for enhancing green cover in the Campus.
21. Conversion of 38 IWC into EWC, one latrine in each block of toilet in old boy's hostels namely VYB, RPB, AKB, BGB and Mal B.
22. Renovation of Machine Lab in FD-II.
23. Acoustic treatment in Chemistry Seminar Room (NCB – 3267).
24. Chalk Board extensions in all 23 classrooms of NAB.
25. Provision of pigeon and mosquito proof meshes on all windows in corridor of New Science Block.
26. Painting Work in HealthClub, Badminton Hall & TT Room (SAC).
27. Roller Blind fixing in V Fast Seminar Room, Dining Area & Meeting Room.
28. Provision of Aluminum Grill on Window & Ventilators of Seminar room and front of V Fast hostel.
29. Taking over of FD- I, Krishna Bhawan & Krishna Gandhi Mess from Project Parivartan Team and further handover to End Users.
30. Roller Blind fixing in Registrar office, Dean Administration office, Dean AUGS, Chief A&F office, PRO Office & Placement Office.
31. Office space refurbishing for offices of Registrar, Dean Administration, Dean AUGS, Dean Alumni Relations and PRO Office.
32. Complete painting work in NSS School.
33. Complete painting work in All Night Canteen.
34. A Cement Concrete plate form was constructed Near Krishna Bhawan for Tea Kiosk.



35. 32 CI cistern tanks were replaced with PVC cistern tanks in MB Block 09.
36. SE Paint up to 3' height is done in Budh Bhawan & IPC (NAB).
37. Painting, Plumbing, Electrical, Carpentry and Black smithy work was done as a part of Summer vacation maintenance activity in Meera, Vyas, CVR, RP, Ashok, Bhagirath, VK, Gandhi, Ram, Budh & SR Bhawan.
38. Office space renovation include Aluminum partition was done for AUGS Div.
39. 346 numbers of Over Head Tanks were cleaned in Hostels Messes and Institute Buildings during Summer Vacation.
40. 400 feet 3" diameter damaged water supply pipe line was replaced from well no 3 to water storage reservoir behind FD-II.
41. Fencing was done around Well No. 9.

#### Works in Progress

1. Installation of 50 KWp Roof Top Solar Power Plant at Krishna Bhawan.
2. Net Metering of Roof Top Solar Power Plant with RSEB.
3. Increasing number of street light poles on Paschim Marg.
4. Painting of 33 KV Transmission Line Tower MS Poles.
5. Insulation of Water storage tank to guard against extreme temperature in Ram & Budh Bhawan.
6. Commissioning of 2-Ton per day capacity Organic Waste Treatment Plant.
7. Renovation of Guest rooms in Old VFAST building.
8. Fencing of Bore Well No.01 near SR Bhawan.

### B1.14 MAJOR EQUIPMENTS ACQUIRED DURING THE YEAR

Centralized purchases unit processes and monitors purchase of equipments and consumables of the institute & also looks after the repair requirements of the equipments. The purchase process includes request of quotations, preparation of comparative statements, indents, bill checking and status reports of purchase. The entire process is managed by computer database containing more than 6000 types of consumable, equipments and 2500 suppliers. The whole process being computerized ensures efficient monitoring, timely acquisition of materials, keeping track of delayed or deferred supply and concurrent remedial action.

**Purchase of consumables:** The annual purchase list for consumables are finalized by considering the institute requirements and existing stock. The consumables are computer stationery, chemical and glassware, electrical and electronic spares, workshop items, reprography items and sports items. The category in-charges process the requirements of individual groups, units, and divisions, and compile them into a consolidated list. The consolidated list of consumables, along with the estimated budget, is presented before the purchase committee. The purchase committee gives approval to this list after scrutinizing it and suggesting necessary modifications.

**Purchase of equipment:** The equipment purchase of the institute is normally done under various government sponsored grants like CSIR, DBT project, DST, DST FIST, DBT, etc. and also through the BITS non-recurring grant. The purchase of equipment essentially involves interaction with the user and approval from the purchase committee with regard to the type of equipment, cost, budget head, terms and conditions of purchase, import components etc. On approval, the normal process of purchase is undertaken and in cases of imported items, the required protocol is followed.

**New equipments acquired:** New equipments purchased in this calendar year include more than 1450 in various engineering and science disciplines for BITS-Pilani. Some of the equipments are also purchased for BITS-Pilani, Goa Campus and BITS, Pilani-Hyderabad Campus. Computational facilities have been substantially strengthened by addition of computer systems and networking hardware. The list of major equipment added during this year for various courses are included in the Annexure B1 -11.

**Equipments and Accessories for BITS Admission Test (BITSAT)**

BITSAT is for admission to integrated admission program for all the three campuses of BITS-Pilani at Pilani, Goa and Hyderabad through a computer based online test conducted by BITS. CPU Procured items like servers, cables, firewalls, laptops, printers, scanners, etc. for this purpose.

## B1.15 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS

### Students Union

The Students' Union elected the following executives for 2018-2019:

President	-	Satyansh Rai
General Secretary	-	Akash Singh
Hostel Representatives		
Bhawan Name		
Ashok Bhawan		Yash Pandya
Budh Bhawan		Abhinav Tyagi
Bhagirath Bhawan		Manal Garg
CVR		Santosh Shukla
Day Scholar		M Ashwin
Vishwakarma Bhawan		Bhaskar Sharma
Gandhi Bhawan		Tanay Sah
Malviya Bhawan (A&B)		Shikhar Singh
Vyas Bhawan		Shivansh Agarwal
Malviya Studio Apartments		Nischal
Meera Bhawan 12378		Disha Jain
Meera Bhawan		Miloni Mittal
Ram Bhawan		Rahul Bubna
Ranapratap Bhawan		Kunal Nandawar
Krishna Bhawan		Shubham Bhatt
SR Bhawan A&B		Priyank Thakur
SR Bhawan C&D		Egna Praneeth

### Secretaries of Clubs

The following were elected Secretaries for various Clubs and Societies:

Embryo Club		Arpit Sharma
Fashion Parade		Priya Rana
<i>Film Making Club</i>		<i>Jays Jose Thomas</i>
Gurukul	Devashish Pant	
Hindi Activities Society		Sachin Tripathi
Matrix	Piyush Bhatt	
Mime Club		Apoorv Raj Singh
Mountaineering Club		Utkarsh Agarwal
Music Club		Deepak Vasudevan
Nirmaan	Shubham Jain	
Nation Service Scheme		Yash Laturiya
Oasis English Press		Vidhi Shah
Oasis Hindi Press		Nimisha Jain
Photography		Tanay Sah
Poetry Club		Sashank Kuppa
Punjab Cultural Association		Jivgot Singh
RadioAktiv		Aviral Sinha
Raagamalika		Megha Paliwal
Renewable Energy Club		Arihant Jain
World Record Society		Shivam
Audi Force		Sailesh Reddy
Dept. of Live Events		Sakshi Choudhary
Dept. of Photography		Pranav Siddharth

Dept. of Theatre	Sneha Kumari
Firewallz	Ram jaswanth
Informalz	Nidheesh S
Lights	Vighnesh Hegde
Sounds	Pratyush Bharati
Stage Controls	Aditya Patil
Dept. Art & Publicity	Chirag Parikh
Controls	Yash Devnani
Dept. of Visual Media	Amritanshu Jian
Publication & Correspondence	Aditi Pandey
Reception & Accommodation	Rahul Unnithan
Sponsorship & Marketing	Punit Batra

*The Students' Union organized a host of events throughout the year.*

#### Sports Club

The office bearers of the Sports Club constituting the sports committee for the year 2018 were

Secretary	-	Surakshit Soni
Joint Secretaries	-	Harsh Bhoot
	-	Mrudula Nageswaran
	-	Samiran Gode

The names of the captains for various games/sports are given below:

S.No.	Games / Sports Name
1	Athletics (boys) - Akul Malhotra
2	Athletics (Girls) - Anushka Gupta
3	Badminton (Boys) - Mohit Goyal
4	Badminton (Girls) - Aditi Arya
5	Basketball (Boys) - Pranav Singh Rathore
6	Basketball (Girls) - Saakshi Dikshit
7	Carrom - Ashwin
8	Chess - Aashay Mehta
9	Cricket - Adit Shastri
10	Football - Tanay Agrawal
11	Hockey - Ayush
12	Lawn Tennis (Boys) - Ajinkya Vyas
13	Lawn Tennis (Girls) - Akankshya Mishra
14	Squash - Ashish Dhek
15	Swimming (Boys) - Joy Parikh
16	Swimming (Girls) - Aishani Chakroborty
17	Table Tennis (Boys) - Aditya Patil
18	Table Tennis (Girls) - Lavanya K
19	Volleyball (Boys) - Rohit Mandar
20	Volleyball (Girls) - Anushka Dayal
21	Taekwondo - Ananyam Dwivedi
22	Football (Girls) - Vineeta Varapula
23	Snooker - Vaibhav Sharma
24	Powerlifting - Biswajit Biswas



	Runner-up – BITS Pilani
23. Taekwondo (Boys)	Winner – NAV BHARAT, SIKAR Runner-up – BITS, PILANI
24. Taekwondo (Girls)	Winner – BITS, PILANI Runner-up – Moharka JIN
25. Snooker & Pool	Winner – BITS, PILANI Runner up – CHITKARA, CHANDIGARH

#### The Intra -BITS Sports Tournaments

i-BOSM 2018: Pre-BOSM EVENT NAMED i-bosm 2018 was conducted from 10.04.2018 to 15.04.2018. Around 400 students participated in the event. Prize giving ceremony was conducted in the end of the semester

Outstation Participation: All sports teams consisting 152 students were sent to participate in Sangram '18 a Sports meet held at IIT Roorkee, during 29th March to 1st April 2018.

Swimming Club: The Swimming team distinguished itself by its performance in BOSM 2017 by winning medals in various categories and performing well at IIT BOMBAY.

Health Club: The Health Club is equipped with various advanced machines for aerobic and anaerobic exercises. During II Semester 2017-2018, the Health Club had a membership of 750 while in I Semester 2018-2019, it was 847.

Hockey Camp : A camp on learning basic skills of Field Hockey was conducted by Sports Club from 3rd April 2018 to 8<sup>th</sup> April 2018 in which a total of 82 students were registered and 48 students regularly attended the same. The certificate-giving Ceremony was held at the end of the semester.

Tennis Camp: A camp on learning basic skills in Tennis was conducted by Sports Club from 3rd April 2018 to 8<sup>th</sup> April 2018 in which a total of 69 students were registered and 36 students regularly attended the same. The certificate-giving Ceremony was held at the end of the semester.

Sports participation in Hostels: Various Sports facilities are also available in all hostels like Badminton, Table Tennis, Basketball, Chess and Carrom. Good participation of students in hostels is observed as unorganized sports.

Triathlon: A Triathlon was conducted for the first time in I-BOSM on 15th April. It involved 100 m swimming, 5 km cycling and 2.5 km running. A total of 41 students participated in the same. Results were announced via email.

#### Martial Arts:

- Martial Arts classes are conducted at Student Activity Centre in both morning and evening session. Around 50 students attended the class regularly, out of which 30 students were trained in competitive martial arts skills.
- BITS Taekwondo boys team took part in All India Inter University Taekwondo tournament organized by Guru Nanak Dev University, Amritsar from 15/02/18 to 19/02/18

#### OASIS 2018

BITS Pilani celebrated the 48th edition OASIS. Its annual cultural festival from 27<sup>th</sup> October to 31<sup>st</sup> October 2018. This festival, managed entirely by the students, was mainly sponsored by Panasonic, Yes bank, HP and Intel. It attracted about 1600 outstation participants from about 70 colleges situated all over the country. The festival hosted as many as 80 events which were based on music, art, dance, photography, drama, literature and every other cultured aspect of the college life. The theme of the festival was "The far out fest". The Chief Guest of the Inauguration ceremony was Mr. Abhishek Chaubey, the famous Bollywood Director.

The music concerts by Shankar Mahadevan, Ehsaan and Loy, EDM night by Wolfpack of Tomorrow Land fame, Guthrie Govan, Indosoul and a comedy show by Abhishek Upmanyu were among the several highlights of the festival. The festival also witnessed various workshops of dance, music and pottery. Events like desert dull, street and stage plays, fashion parade, Mr. and Ms Oasis, debate, BLAB etc caught the limelight a students from all over the country were able to stage and showcase their talents.

The National service Scheme and NIRMAAN along with several NGO's set up an exhibition for the sale of village potteries, governments and others handcrafts. Nirmaan's wall of Peace was one of the most eye catching thing during Oasis. This wall was devoted to the Indian Army and volunteers gifted it to the Army at Wagha Border. In the words of Mr Satyansh Rai, the President of the Students' Union. "OASIS is a 96 hour long cultural extravaganza entirely organized by students and is one of the best cultural festivals in Asia."

### APOGEE 2018

APOGEE is the Annual international technical festival OF BITS Pilani. With over 8000 students, 100 colleges and 80 technical events, APOGEE 2018 was conducted from 22nd to 25th February 2018. The chief sponsors for the festival was MapMyIndia and others included Tata and Filtercopy. It provided opportunities to bright research-oriented minds fostering fruitful innovation through events that include Guest Lectures, Panel Discussions, Project, Paper Presentations, Hackathons, Programming Events, Workshops and Exhibitions extending over a period of five days. The Think Again Conclave was the major attraction of the festival with greats like Danielle Fienberg (Director of Photography, Pixar), Sheila Dixit (Ex-CM, Delhi) gracing and making the event an astounding success. APOGEE 2018 surely took the standard of APOGEE as a festival a few notches higher.

### Ragamalika 2018

Ragamalika, the classical music and dance club of BITS Pilani organized myriad events touching upon various aspects of Indian classical music and dance during the year 2018. The year kicked off with the second-semester auditions, rejuvenating the club with fresh recruits to tackle its coming shows. This was immediately followed by the Fresher's concert, the first opportunity for new members to show their mettle on the BITSian stage. The Thyagaraja Aradhana program, where the club paid homage to the Carnatic composer Thyagaraja, promptly followed. Next came the semester production, Sangamam, where the club portrayed the literary classic "A Christmas Carol" through classical dance; and a music concert shortly after. The semester culminated in the "Psenti Concert", the club's graduating members' last performance on the BITSian stage. Then came the summer break, after which the club reconvened for the 2018 batch auditions. Subsequently, the dancers of the club partook in the BOSM inaugural ceremony, alongside the musicians from Gurukul. Directly afterwards came the first-semester production, Nrityaranjani, which was about the five elements of nature, the panchabhootams. In Oasis, the club hosted three events; a classical fusion prof show with Indosoul, and the classical music and dance competitions Swaranjali and Tandav respectively. The semester concluded with the next graduating batch of Ragamalikans giving their own psenti concerts, bidding adieu to the club that had hosted them for three and a half years.

### SPIC MACAY

SPIC MACAY BITS Pilani chapter witnessed a host of concerts by accomplished artists on a range of performances from classical vocal to folk dance. The first concert of the year was a Carnatic Classical (Vocal) concert by Vidhushi Sudha Raghuraman held on 23 Apr. She was accompanied by her husband G Raghuram who is an accomplished flautist and also on stage was MV Chandrashekar giving sangat with the Mridangam. The second concert of the year was a Shehnai concert by Shankar brothers. Pandit Sanjeev Shankar and Pandit Ashwani Shankar were also accompanied by Shri Vinod Lele on Tabla. Besides performing, the artists also gave a lecture-demonstration on the structure and making of the Shehnai instrument and also explained the historical roots of this ancient instrument and how it has evolved over the ages to its present form. The concert was held on 27 Aug. The third concert of the year was held on 10 Sep and was a Hindustani Classical Vocal performance by Ms. Madhumati Ray. Her performance included an ensemble of Hindustani Khayaal style as well as semi-classical styles such as Thumri, Dadra, and Bhajan. She performed a variety of Indian Ragas that included early morning, early evening and late evening ragas. The year concluded on a thumping note and danced to the tune of the Sambhal Puri folk dance troupe from Odisha. The concert was held on 22 Nov and witnessed an energy laced performance by the members of the group that included both devotional and cultural overtones and breathtaking acrobatics. The concert concluded with BITSIANs performing synchronized dancing on stage along with the folk artists. The experience shall be remembered for a long time.

### MATRIX

#### Second Semester 2017-2018

The club kept up the tradition of attending Jaipur Literature Festival, which was held in the last week of January this year. Talks by Shashi Tharoor, Hamid Karzai, Sheila Dikshit, Vishal Bharadwaj and Helen Fielding were this year's highlights, along with a multitude of book introductions and panel discussions.

The first book introduction for this year was held on 1st February, as the club participated in Basant Book Festival on campus. The following books were introduced:

- The Great Indian Novel (Shashi Tharoor): Aditya Kumar
- The Importance of Being Earnest (Oscar Wilde): Adil Khan
- Ocean at The End of The Lane (Neil Gaiman): Neel Shah
- Genome (Matt Ridley): Shubhankar Ranade

"Hyacinth", a faculty book introduction was held on 14th February, with the following books being introduced:

- A History of Reading (Albert Manguel): Dr. Jayendra Bandyopadhyay
- Three Thousand Stitches (Sudha Murthy): Dr. Meghna Tare
- Caves, Huts and Monasteries (Mark Kacik): Dr. Pushp Lata
- Birdsense: What it's Like to Be a Bird (Tim Birkhead): Dr. Sandhya Marathe

Matrix participated in APOGEE 2018 (21–25th February) by hosting “The Wheel of Fortune” and a Minimalist Quiz.

“The Hanging Spear”, a mythological quiz, was hosted by Ankit Dubey, an outgoing member of the club, on 18th March.

“Udgar”, a vernacular book introduction, followed shortly on 22nd March. This event saw club members introduce books of their choice, written in their native language.

- Chitralkha (Bhagwaticharan Varma): Sanskriti Chitransh
- Bugudu (Mullapudi Venkata Ramana): Satya Praneet
- Mrityunjay (Shiwaji Sawant): Vedant Patil

Anime quiz was hosted by Adnan Shafique on 1st April.

The last book introduction of the semester, “Reverie”, was held on 12th April. This event was dedicated to the graduating members of the club, as they presented for the last time. Following books were introduced.

- The Turn of The Screw (Henry James): Srishti Khatri
- Tractatus Logico-Philosophicus (Ludwig Wittgenstine): Vedant Patil

The last activity for the semester was the Valedictory Ceremony which was held on 26th April. We thanked faculty members for their involvement in and support to the club and presented every participant (faculty and club members alike), who had introduced either a book or a film, with a book. This ceremony saw Prof. Sarkar interact with the club as he shared his reading preferences and habits, also touching upon what he believes are the thoughts that (should) go into the whole process.

First Semester 2018 -2019

The new academic year started with Matrix screening the film “Scott Pilgrim vs. the World” on 11th August which was attended by a good number of movie enthusiasts on campus. This event also served to introduce Matrix to the new batch of students. A new approach was undertaken for recruiting fresh members this year, with the prospective recruits being invited to talk on stage about a book or a movie of their choice so as to get a better idea of their abilities and their motivation behind joining the club.

On 18th August, the newly joined members held an introduction which included the following:

- Life Is Beautiful (Dir. Robert Benigni): Archit Deshpande
- Lizzie, Beautiful (Lizzie Velasquez): Navya Bhandaru
- Rijuda (Buddhadev Guha): Sanghati Roy
- ACCA 13 (Natsume Ono): Sparsh Kasana
- The God of Small Things (Arundhati Roy): Saumitra Ray

The first edition of “Babel from the Rooftops”, a collection of thoughts in the form of a poem, a piece of art and music, was published (through root mail) on 28th August.

“Erinyes from the Iliad”, a book introduction, was held on 18th September and saw the following books being introduced:

- The Man Called Ove (Fredrik Backman): Aakanksha Kesarwani
- The Reluctant Fundamentalist (Mohsin Hamid): Isha Bhorkar
- Two Years Eight Months and Twenty-Eight Nights (Salman Rushdie): Jaanvi Agarwal
- Welcome to the NHK: Rohith Krishnamoorthy

The club organized “Triathlon”, a three- part event consisting of a Minimalist Quiz, a treasure hunt and an innovative “what happens next” for Oasis 2018 (27-31st October), along with screenings of “Trainspotting” and “Easy Rider”.

The club hosted Prof. Saikat Majumdar on 16th November, in the event “Meet the Author”. Prof. Majumdar opened his mind to the audience in a stimulating and informative interaction following an introduction of his

book "Firebird" by Neel Shah. The club got the opportunity to gain insights on being an author as Prof. Majumdar also talked about his thoughts behind the book.

The semester concluded with the Valedictory Ceremony, held on 27th November, in which, all the members who had introduced a book were presented with one. Prof. Ashoke Sarkar expressed his thoughts and expectations about the club in a short speech and an interaction with Prof. Kumar Sankar Bhattacharya and the club members followed.

#### National Talent Search Scheme

The number of National Talent Search Scheme Scholarship holders studying in the Institute during the year in various programmes was as follows:

Admission year	No. of students
I Year	29
II Year	49
III Year	41
IV Year	11
V Year	01
Total	<u>131</u>

#### National Service Scheme

##### Introduction

The Birla Institute of Technology & Sciences, BITS Pilani is an all India Institute for higher education. BITS Pilani, since its establishment has been striving to develop the community and with a mindset of instilling the thoughts of social awakening in its students as well, established National Service scheme as early as 1969. Over the past few decades, NSS has been working tirelessly in the surrounding villages to develop the community in the spirit of nation building. NSS also provides students the opportunity of developing leadership skills and develop a sense of social and civic responsibility.

##### Faculty Body Structure

NSS Faculty in-charge: Dr. Ashish Tiwari

NSS Program Officers:

1. Prof. Jyoti
2. Prof. Hari Om Bansal
3. Dr. R.P. Pareek
4. Prof. Chandra Shekhar
5. Dr. Harikrishnan Gopinandhan Nair
6. Dr. Shivi Agrawal
7. Prof. Surojit Pande

##### Activities:

The following is the brief overview of the activities undertaken by NSS BITS Pilani during the year 2018-2019:

##### 1. Literacy Program:

Aim: To provide literacy and smart education including English and personality development to the needy NSS School started in second week of August of this academic session. Out of 300+ students who appeared for the entrance test, we selected 120 students from class 3rd to 12th based on financial condition and the willingness and enthusiasm of students. Apart from regular teaching, various workshops were conducted for kids which consisted of sketching, coloring, craft making, computer literacy etc. Regular tests were conducted for all the classes to provide a good competitive environment and continuous feedback about their performance and improvement. The Barcode based attendance system helped to keep a better track of the attendance of volunteers and the students as well. This helped to increase the efficiency of working of NSS School and maintain a proper database of volunteers as well as students. Children develop a strong bond with the volunteers and this bond is further enhanced by celebration of various events like Teacher's Day and Children's Day Celebration in the school. Also, a motivational and counselling session was organized for the students. Regular classes under the program "English and Personality Development" were organized throughout the semester for the events. For the 2nd semester, apart from continuing all of the above, we have planned to organize the "Sports Day" and the cultural event "Udaan" for the students for their wholesome development.

2. Computer Literacy Program (CLP): The Computer Literacy Program (CLP) which aims at providing computer literacy to adults and students living in Pilani and in nearby villages was carried out successfully by National Service Scheme, BITS Pilani, in neighboring areas.



- **Coding Classes in NSS School:** After the successful completion of the first batch last semester, the new batch of our initiative coding classes for this year commenced on 4th September. Our aim is to teach the students of 8th and 9th class basics of C++ programming with a vision to develop logical and reasoning skills of the students which will help them in their future endeavors. This year we have increased the intake of students. We conducted mental ability and basic computer knowledge test in various schools and then inducted students on the basis of merit in this program. The children were very enthusiastic to learn something new and were showing keen interest. We look forward to an enlightened future with all of these students.

- **Government School Initiative:** With the vision of redefining computer literacy on rural grounds, CLP, NSS BITS Pilani started its Government School initiative in Khedla Government School. It aims to build a strong foundation for Computer Learning among children. A team of volunteers ensures that the class is well seated, disciplined and learns at a manageable pace. The students of classes 6th and 7th were very enthusiastic and their motivation towards learning computers was a satisfying sight to behold. Through this initiative, we hope to successfully impart computer knowledge to these zealous children.

3. **Health and Public Awareness (HPA):** Health and Public Awareness focuses on making the people aware about the government policies and how to get maximum benefit from them. It also tries to uplift their life by making them aware about diseases by conducting various camps and surveys like general health assessment survey and camp, sanitary health camp etc. Considering the objectives, a lot of activities were taken up this semester, mainly in Rayla, Jherli and Garinda. Some of the activities were Cleanliness Drive, health survey, documentation camp in basti, health camp etc. A Cleanliness Drive was organized as a part of Swachh Bharat Week during which children were taught healthy hand wash techniques, motivated about keeping their surroundings clean, etc. Health survey was conducted before health camp in which a doctor from outside visited the village and medicines were distributed accordingly. A Vocational Training Center is running in Garinda which focus on Women Empowerment by providing them with employment opportunities. Under Green School Initiative, NSS BITS Pilani organised a "Green School Initiative" to teach the school students of village Jherli about how to plant saplings and seeds and to take care of their growth. Each student planted a sapling and poured water under the guidance of NSS volunteers. In total 60 saplings were planted. Also, the Independence Day was celebrated in the government school of Rayla and Garinda. A lecture session was also organised for women of Garinda village on Menstrual Hygiene.

4. **Umang Counselling and Scholarship Program:** Scholarship program is one of the core projects of Umang. Umang scholarship program aims at providing scholarship to some needy but meritorious students across schools in Pilani. Schools included under this program are Goenka, Vashishth Pathak, Mandelia Sr. Sec. School, Padia, Rakesh Academy, Sardar Patel, Saboo, Jamuna Mishra, Tilak Public School, National Public school and Kids garden. A set procedure is followed for selecting and filtering out students and to calculate the amount each student gets. Home and school visits are done to ensure the deservedness of the candidate by evaluating his/her academic and financial condition. A test was conducted in both school and home visit and parameters such as performance in the class, attendance etc. were analyzed, financial and economic conditions were taken into account to decide the scholarship amount as the percentage of the particular installment to be paid directly to the school in the form of cheque.

Counselling Sessions are an integral part in the functioning of Umang. These sessions play pivotal role in the aim of guiding and mentoring students. The sessions were conducted in Vashishth Pathak School on 29th September, Goenka and NSS School on 1st October and in Padia School on 3rd October. Sessions were of 1-1.5-hour duration with underlying theme to motivate 9th-12th class students to inculcate a spirit of studying and importance of studies was made clear with the proper use of real-life examples and illustrations by the speakers. The speakers elaborated on the problems and distractions faced by students while studying and suggested simple and innovative solutions. Tips related to time management and study techniques were also shared. The sessions were concluded with general doubt clearing sessions. It was made sure that the students take back the maximum from these sessions and incorporate the tips in their lives.

5. **Parishod:** It aims at using technology to solve grassroot problems.

**KPIT -** We as NSS BITS Pilani have registered for all India Competition KPIT for which we have submitted an idea under the problem statement "innovation which convert waste to energy". Our idea is to convert banana peels to plastic. It would done through some chemical reactions. There will be proper follow ups on this in next semester.

**Project EPIC:** We have taken this project in collaboration with Purdue University, which aims at purification of water using water purifiers at affordable prices. Till now we have already reduced the price to half of the market price. The water test in labs have been carried out.

**Scheme Portal:** Parishod collected the names of various schemes and policies of Government and NGOs for the preparation of the Scheme Portal. We divided ourselves into groups to collect schemes related to: -

- Agriculture
- Education
- Women Empowerment

- Health and Sanitation
- Social security
- Food and Nutrition

After collecting the names of the schemes, we went through each scheme in detail and listed out the key points and the eligibility criteria for these schemes so that the villagers don't find it difficult to search for important details and these have been added to the scheme portal.

#### 6. Special Events:

- Blood Donation Camp (17th-18th February, 2018): NSS BITS Pilani organized 37th edition of Blood Donation Camp in collaboration with Indian Red Cross Society, Delhi. We received overwhelming response from faculty, student community as well as the local residents of Pilani. A total of 808 units of Blood was collected during the two days camp and the total footfall was 1133 which is a clear indication of increased awareness.
- Unsung Heroes (9th September, 2018): The pre Junoon talk series, Unsung Heroes was conducted on 9th sept. in the NAB auditorium. The speakers for the event were Mr. Navin Gulia, Ms. Ritu Saini and Mrs. Preeti Monga. Mr. Navin Gulia is an Ex-Army Officer with multiple awards, a brilliant author and an adventurer. He lost his legs in an accident but never lost his zeal. Ms. Ritu Saini is a Victim of a cowardly acid attack, participated in numerous fashion events, raises awareness about acid attack victims. Mrs. Preeti Monga is the Chief Executive Officer of Silver Linings Foundation, been visually impaired since childhood but never lost the vision of her life. The event was attended by the director, Prof. A. K. Sarkar, the prof. in charge of NSS, Dr. Ashish Tiwari, along with many professors and students of BITS Pilani.
- Junoon (15th-16th September, 2018): Junoon 2018 had a kick start with the inauguration ceremony held at SAC. The chief guest of this auspicious event was Padma Shri Murlikant Petkar. Later that day, recreational activities were organized for the especially abled kids. Children were taken for photo session while many participated in activities like Ludo, Kho-Kho, Football, Volleyball, etc. This was followed by a dinner in V-Fast with the NGOs.

After the thrilling 1st day, the second day started with sporting and athletic events in gym-grounds at 8:00 am. Events like 100m race, 50m race, bocce, shot-put, standing jump were organized for the participants. The program concluded with prize distribution ceremony. In the afternoon, there was a movie screening for the students in the NAB Auditorium. Junoon Nite was graced by the presence of our chief guest Sh. Murlikant Petkar ji, Dean Administration Prof. S.K. Verma and officials from the institute. The nite was full of joy-full performances from various NGOs, along with performances by the Dance Club, Gurukul and Poetry Club.

- NSS Oasis Stall (27th – 31st October 2018): NSS BITS Pilani hosted 3 events in Oasis'18 - Shop For a Smile, Lend Your Voice and Eye Donation Camp.

We managed to generate substantial revenue for the NGOs by selling their products. This amount was completely returned to the NGOs. Also, awareness was created about working and impact of all the NGOs.

Under the initiative Lend Your Voice, the participants recorded 400+ Audiobooks for the visually impaired children. These recordings were gifted to different Blind Schools across India.

The awareness project reached to thousands of people personally and had 530+ people who formally pledged to donate their eyes!

- Conferencia De Youth (CDY): We are planning to host the first social conference of BITS Pilani next semester. Teams from social organizations of various colleges will be participating in the conference. We will be having various events like:

- ‡ ePicasso: Designing posters to highlight and publicize NGOs
- ‡ Volunesia: Work Presentation
- ‡ Eloquence: Group Discussions
- ‡ Hackathon: To create technical solutions for global issues for betterment of society
- ‡ Words of Wisdom: Panel Discussions
- ‡ Adhyayan: Case Study Challenges

The publicity and pitching work have already started and we are looking forward for 1st successful edition of the same.

#### NIRMAAN

Nirmaan Pilani currently has more than 120 dedicated student volunteers working in the villages of Rajasthan to provide better educational and employment opportunities for the poor and the marginalized rural population.

A number of projects are being undertaken in the field of education: Disha, Gyan Bodh, School Adoption Program, Shiksha Ki Ore and Utkarsh.

Unnati-1 and Unnati-2 are the exclusive projects undertaken in the area of women empowerment through self-employment in 2 different areas of Baas village.

Participatory Community Development aims to understand the community and identify local leaders who will take up the work of developing their villages.

#### VOCATIONAL TRAINING PROJECTS

Vocational Training Projects focus on creating a platform for rural women in Baas to earn a livelihood by forming a self-sustainable group, which prepares products and markets them.

There was an increase in the number of beneficiaries. More women have showed interest and have learned stitching shirts and petticoats. These efforts have brought significant increase in the sales of pads compared to last year i.e. around 150 packs of sanitary pads were sold. The increased sales also have led the project to maintain a more documented and organised structure for accounting the earnings of each woman.

In another centre, women were trained for making earrings and mementos. The earrings and Diyas were sold at the Nirmaan Stall at OASIS 2018. Women were taught basic Counting, English words and sentences, arithmetic calculations and to read inch tapes and clocks.

In collaboration with B.S.K. Kaushal Kendra, a new centre is opened in Ghodela near Bhagat Singh circle where proper training is given to our beneficiaries in presence of trained tailors and craftsman. New products such as wanderwaans, earphones pouches and envelopes were made and put on oasis stall.

#### EDUCATION PROJECTS

Educational projects focus primarily on upliftment of various communities in Pilani like Baas, Court Basti, Nat Basti by spreading awareness about the importance of education as well as helping them with their academic curriculum and all-round development.

Counselling of parents was done in Court Basti in order to generate awareness about the importance of their child's education. It bore the desired results as parents themselves started sending their kids to the centre.

In Nat Basti the entire community was made aware of SWACHH BHARAT ABHIYAN under which cleanliness drive and rally was organised. Also public dustbin and toilets were installed in the basti.

English Learning Program (ELP) and Computer Learning Program (CLP) were conducted throughout the year and art and craft classes were also provided to the students to improve their all-round development. Introduction of Soft Skill Development as a new program in our government school in BAAS.

Evening classes for students preparing for Navodaya were organised and mock tests were given. And 3 students were registered for the entrance exam.

The occupied room of school is cleaned for new classroom and the roof construction work is in progress.

Scholarships worth 3.4 lacs were provided to 52 meritorious and needy students between 6th to 12th grade students from several schools like Saboo School (1.6 lacs- 26 students), Bal-Niketan (60K-10 students), Kids Garden (1.2 lacs- 16 students) and these students were provided mentorship to all these students for their scholastic as well as holistic development.

A major test was conducted throughout the semester and progress report of each child was maintained. A dustbin was installed by team in basti. Bonding sessions were conducted and mela visit was conducted after the first test. Syllabus had been prepared according to academic level of student. Regular visits were made to the schools to ensure the attendance of students as school dropouts is a common issue.

Festivals like Independence Day, Diwali, Rakshabandhan were celebrated with the kids, they were taken to visit the Pilani mela and were also brought inside the campus on Teacher's Day as a part of Joy of Teaching event where other people from the campus were given an opportunity to interact with the kids.

Career Counselling Sessions were conducted in different schools and magazine was published to assist schools and make sure a hard copy of information is also available.

#### PARTICIPATORY COMMUNITY DEVELOPMENT

Major work in this field was the mapping of the entire Baas village so that locating each house would be much easier and conducting a survey to collect data about the villagers and understand their basic problems. The survey is also done in Nat basti and court basti.

A plantation drive was organised in Khel Maidan for awareness towards environment and cleanliness. Around 30 trees saplings were planted along the Maidan boundary. A newspaper article was published regarding this event.

A sports extravaganza on 2nd September in Pooja Ground, BITS Pilani. It was an approved pre BOSM event. More than 60 students from project SAP, SKO, GB BAAS participated. The main objective was to promote sport among the beneficiaries of Nirmaan for the overall growth. Around 10 gold, 10 silver and 20 bronze medals were awarded with participation certificate to everyone, provided by health council. Prof incharge Asish Tiwari and chief warden Prof Navin Singh were present and they awarded the medals.

## EVENTS

## 1. JOY OF GIVING WEEK

The Joy of Giving Week is a "festival of giving" that aims to bring together BITSian through different acts of giving- money, time, skills or resources. JOY OF GIVING WEEK was organised from 6th to 12th of September, 2018. Following is the list of the events during the Joy of Giving Week.

"Inauguration", It held at 6:30 on 6th of September in BITS NAB Audi. The stage was adorned by our chief guest Mr. Anoop Khanna (social worker & owner of Dadi ki rasoi). He addressed the crowd with his very enchanting and motivating words. In presence of vice chancellor Prof. Souvik Bhattacharyya and director Prof. Ashoke Sarkar, the spirit of JOGW was lit in campus.

"Day of Joy", a day of joy when we get kids from Baas and Natbasti to our campus and give a day of BITSian life. This involved various performances by Mime club, musician Sagar Verma and other sports activities. Apart from this we also had various fun sessions for the kids and lunch for them. Day ended with a movie screening in NAB room.

"Joy of Serving", an event wherein the mess workers and the students interchanged their roles and various activities were conducted for the mess workers such as singing, speeches and GB discussion. Our Director Prof. Ashoke Sarkar, faculty members and nirmaan volunteers served the food to mess workers.

"Night of Joy", an event wherein snacks, sweets and tea was distributed among the security guards inside the campus.

"Hour of Joy", an opportunity for every BITS student and faculty to come, visit and volunteer for projects that we run throughout the semester. They can do anything special that they think should be done in the project in that hour. The response from the BITSians was very good with many of them donated various resources to the beneficiaries and took active part in the discussions with them.

"Wish tree", a tree (made of cardboard and paper) having wishes which are waiting to be fulfilled. It could be something material like a set of colours, books or something immaterial like taking kids for an outing, teaching women a new art and so on. These wishes were put on wish tree which people could see and fulfill if they wish to. ANC was decorated with the theme of JOGW, which attracted the attention of many BITSians.

"Faculty Match", separate cricket matches for male faculties and female faculties were organised. Many faculty members actively took part in this event.

"Joy of teaching", In this event kids from Court basti and Baas villages were taken to the BITS library, Sky Lawn and Gandhi Statue. BITSians, Ph.D. scholars and Professors were invited to give small lessons to the kids. Director of BITS also took part in this event.

"Day for Women", This event was exclusively for female sweepers. The faculty members and volunteers took part in this event where fun activities were organized and goodies were distributed to everyone.

## 2. Eye Checkup camp

Nirmaan Organisation, BITS Pilani, in collaboration with SSMS, Aditya caterers and Blue Chip hospitality, conducted a free eye check-up camp for SSMS workers and the members of their family. It was held in the Student Activity Centre on 30th September, Sunday. This initiative was spearheaded by Dr. Pramod Kumar Sehgal with the able support of our respected trustee- Mr. Arun Ji Singhi. Our Honorable Director, Prof. Ashoke Kumar Sarkar, inaugurated the event. The camp was also graced by the presence of professors, Prof. SK Verma, Prof. R. Mahesh, Prof. Sangeeta Sharma, Dr. Ashish Tiwari, Dr. Sunil Dubey, Dr. Jola Dubey. Basic optical tests were performed under the supervision of the doctors. The event was a success, with 214 registrations- 92 of whom were prescribed spectacles and 42 were referred to the hospital for proper checkup.

## 3. Tree Plantation Drive in Baas Village

Volunteers of PARTICIPATORY COMMUNITY DEVELOPMENT organised a plantation drive in Khel Maidan for awareness towards environment and cleanliness. Around 30 trees saplings were planted along the Maidan boundary. A newspaper article was published regarding this event.

## 4. Festival celebration

Volunteers have celebrated festivals with the people of Nat-basti, Court-basti, and Baas village; Janamastmi, Diwali, Rakshabandhan etc. were celebrated with full joy and enthusiasm.

## 5. Kadam

Volunteers of PARTICIPATORY COMMUNITY DEVELOPMENT organised sports extravaganza on 2nd September in Pooja Ground, BITS Pilani. It was an approved pre BOSM event. More than 60 students from project SAP, SKO, GB BAAS participated. The main objective was to promote sport among the beneficiaries of Nirmaan for the overall growth. Around 10 gold, 10 silver and 20 bronze medals were awarded with participation certificate to everyone, provided by health council. Prof incharge Ashish Tiwari and chief warden Prof Navin Singh were present and they awarded the medals.

## 6. Oasis Stall and The Peace Wall

During Oasis 2018, Nirmaan had setup a food stall conducting a food challenge along with Unnanti products

for sale. The idea of Peace Wall was introduced this Oasis where an entire flex wall was dedicated to write messages for the BSF personnel and was delivered at the Wagha Border by the volunteers.

#### Alumni Scholarships

BITS Alumni have instituted several merit-cum-means scholarships. For the First Semester 2017-2018 and Second Semester 2017-2018 the scholarships were awarded to the following students.

Scholarship	I Semester 2017 -2018	II Semester 2017 -2018
Vamsi Pendyala and Prasanna Kalahasthi Memorial Scholarship	Hitesh Sethi ID No.2016B2A30809P	Mahesh Bansal ID No.2016B2A30172P
S.S. Seshadri Memorial Scholarship	Kondapi S Sanjay Srivastav ID No.2015A7PS0102P	Hitesh Sagtani ID No.2015B3A70655PP
BITS Alumni Class of 1966-71 Scholarship	Shivani Singh ID No.2012016B2A30680P	Mayank Singh ID No.2016B1A30859P
Rakesh Chandra Scholarship	Rahul Gupta ID No.2016B2A70917P	Amlan Routray ID No.2016A8PS0326P
Shantha E. Iyer Scholarship	Khushboo Kumari ID No.2017A7PS0012P	Khushboo Kumari ID No.2017A7PS0012P
	Mansi Bansal ID No. 2016A2PS471P	Vrinda Poddar ID No. 2014B4A7802P
	Ayushi Agarwal ID No. 2015A1PS712P	Ayushi Agarwal ID No. 2015A1PS712P
	Vrinda Poddar ID No. 2014B4A70802P	Mansi Bansal ID No. 2016A2PS471P
Arun Agarwal Scholarship	Manish ID No.2017b4ps0812p	Pratik R Kakade ID No. 2017A7PS0086P
Dr. S.K. Agarwal Scholarship	Ronak Bhattad ID No.2017A3PS0200P	Jaspreet Singh ID No.2017A7PS0227P
M.R. Dalmitya Scholarship	Nitesh Kumar ID No.2016A40276P	Mukul Jindal ID No.2017A4PS0463P
	Shruti Sharma ID No.2016ABPS0833P	Shagun Bhargava ID No.2017B1PS0413P
Divya-Dileepan Scholarship	Prakhar Srivastava ID No. 2015B4A70802P	Prakhar Srivastava ID No.2015B1PS0834

#### B1.16 Institutional Knowledge Analysis Cell (IKAC)

The universities across the world are increasingly promoting data driven decision for both strategic and operational purposes. This calls for systematic collection, organization of data across offices and campus offices that forms basis of such decisions. In order to manage this function Institutional Knowledge Analysis Cell (IKAC) was established at BITS Pilani in March 2016, headed by a Faculty-in-Charge (Institute-wide), with the purpose to “provide data with analysis to internal and external stakeholders for evidence based decision making and strategic planning”. The objectives of IKAC are:

1. To seek, collate, organize & secure data for institutional processes and functions
2. To conduct analysis & provide insights into collected data, with the goal of facilitating evidence based decision making.
3. To provide relevant data, institute wise, campus wise or department wise for enchmarking, accreditation, national and international rankings, awards, and other such initiatives

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### DETAILS OF ADMISSIONS MADE DURING THE YEAR 2018

**(A) Second Semester 2017-2018**

**Doctoral Programmes**

Ph.D.	50 (21)
<b>Total</b>	<b>50 (21)</b>

**(B) First Semester 2018-2019**

PROGRAMMES	No. of students joined	BITSAT Cut-off scores	
		Highest	Lowest
<b>1. Integrated First Degree Programmes</b>			
<b><u>Group A</u></b>			
B.E.			
Chemical	74(13)	345	280
Civil	70(6)	333	274
EEE	114(9)	378	338
Mechanical	102(1)	370	313
B. Pharm.	49(20)	314	213
Computer Science	145(9)	434	378
Electronics & Instrumentation	73(6)	378	319
Manufacturing	36(5)	320	270
	<b>663(69)</b>		
<b><u>Group B</u></b>			
M.Sc.			
Biological Sciences	70(13)	302	259
Chemistry	66(14)	327	265
Economics	80(15)	354	308
Mathematics	78(15)	371	297
Physics	81(11)	333	288
	<b>375(68)</b>		
<b><u>Group C</u></b>			
M.Sc.			
Gen. Studies	9(5)		
	<b>9(5)</b>		
<b>Total :</b>	<b>1047(142)</b>		

**Note:**

- (i) The above list consists of 12 students who are First rank holders from different central/ state boards admitted under 'direct admission of board toppers' scheme.
- (iii) The above numbers also include 27 admissions of staff children(25) and of BET school students(2), made under special dispensation consisting of 2 in Bio Sciences, 2 in Chemistry, 4 in Economics, 5 in Mathematics, 5 in Physics and 9 in General Studies.

## 2. Higher Degree Programmes :

M.E.	
Biotechnology	21(17)
Chemical Engineering	8(03)
Civil (Structural Engineering)	22(03)
Civil (Transportation Engineering)	20(03)
Civil (Infrastructure Engineering)	11(02)
Computer Science	21(07)
Communication Engineering	22(07)
Design Engineering	19(01)
Embedded Systems	17(06)
Manufacturing Systems Engineering	15(0)
Mechanical Engineering	20(01)
Microelectronics	27(05)
Software Systems	29(09)
MBA	62(17)
M.Pharm.	12(07)
M.Pharm. (Pharmaceutics)	13(09)
M.Pharm. (Pharmaceutical Chemistry)	8(02)
<b>Total</b>	<b>347(99)</b>

## 3. Doctoral Programmes :

Ph.D.	54(22)
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## SUMMARY

	II Semester 2017-2018	I Semester 2018-2019
<b>Programmes</b>		
Integrated First Degree Programmes	-	1047(142)
Higher Degree Programmes	-	347(099)
Ph.D.	50(21)	54(022)
<b>Total</b>	<b>50(21)</b>	<b>1448(263)</b>



**STATEMENT SHOWING THE NUMBER OF CANDIDATES WHO HAVE BEEN PERMITTED IN  
THE ACADEMIC YEAR 2018-2019 TO PURSUE VARIOUS DUAL DEGREE PROGRAMMES  
UNDER VARIOUS PRIORITIES**

**FIRST PRIORITY**

(i) **Pilani Campus:**

(From Group 'B' to Group 'A' Programmes)

<b>Programmes* From ↓ To →</b>	<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>A4</b>	<b>A5</b>	<b>A7</b>	<b>A8</b>	<b>AB</b>	<b>Total</b>
B1	11	09	07	06	-	10	03	03	49
B2	17	12	07	11	-	08	10	05	70
B3	05	07	22	08	-	26	04	06	78
B4	08	08	13	11	-	20	13	03	76
B5	04	06	16	15	-	16	09	02	68
<b>Total</b>	<b>45</b>	<b>42</b>	<b>65</b>	<b>51</b>	<b>-</b>	<b>80</b>	<b>39</b>	<b>19</b>	<b>341</b>

**OTHER PRIORITIES:**

<b>Programmes* From ↓ To →</b>	<b>B3</b>	<b>Total</b>
A1	01	01
<b>Total</b>	<b>01</b>	<b>01</b>

(ii) **Transfer within same tier:**

<b>Programmes* From ↓ To →</b>	<b>A3</b>	<b>A7</b>	<b>A8</b>	<b>Total</b>
<b>A1</b>	<b>2</b>		<b>1</b>	<b>3</b>
<b>A2</b>				
<b>A3</b>		<b>3</b>		<b>3</b>
<b>A4</b>		<b>1</b>		<b>1</b>
<b>A8</b>	<b>2</b>			<b>2</b>
<b>AB</b>				
<b>B4</b>		<b>1</b>		<b>1</b>
<b>B5</b>				
<b>Total</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>10</b>

(iii) Transfer within B to B

Programmes* From ↓ To →	B3	B4	Total
B1		1	1
B2	2	1	3
B5	1		1
Total	3	2	5

(iv) Vertical Transfers:

From	To	No. of Students
B.E. Computer Science	M.E. Computer Science	1
M.Sc. Economics & B.E. Electrical & Electronics B.E. Electrical & Electronics	M.E. Embedded Systems	2
B.E. Civil	M.E. Civil (with Specialization in Transportation Engineering)	2
M.Sc. Chemistry & B.E. Electrical & Electronics B.E. Civil	M.E. Software Systems	2
B. Pharm.	M. Pharm. (with Specialization in Pharmaceutics)	1
B.E. Manufacturing Engineering	M.E. Mechanical Engineering	1
M.E. Design Engineering	Ph.D. in Mechanical	1
	<b>Total</b>	<b>10</b>

**Minor Programmes:** During the Academic year 2018-19, 122 students were admitted in Minor Programme, out of them 107 in Finance, 13 in Physics and 2 Film and Media.

**NUMBER OF STUDENTS REGISTERED IN FIRST SEMESTER 2018-2019**

Programme	Year of Admission						Total
	2013 and earlier	2014	2015	2016	2017	2018	
<b>I. On Campus Programmes</b>							
A. Integrated First Degree Programmes							
<b>B.E. (Hons.)</b>							
Chemical	0(0)	3(0)	71(12)	63(11)	76(14)	74(13)	287(50)
Civil	0(0)	1(0)	71(2)	66(3)	77(4)	70(6)	285(15)
E.E.E.	0(0)	3(0)	94(5)	101(13)	115(9)	114(9)	427(36)
Mechanical	0(0)	2(0)	89(0)	91(5)	91(1)	102(1)	375(7)
Computer Science	0(0)	5(1)	120(13)	124(13)	153(12)	145(9)	547(48)
Electronics & Instrumentation	1(0)	4(0)	67(9)	64(10)	70(13)	73(6)	279(38)
Manufacturing Engg.	0(0)	3(0)	32(1)	33(4)	32(6)	36(5)	136(16)
<b>B.Pharm. (Hons.)</b>	0(0)	2(1)	44(22)	49(22)	39(20)	48(19)	182(84)
<b>M.Sc. (Hons.)</b>							
Bio. Sciences	2(0)	52(12)	46(7)	55(7)	49(14)	70(13)	274(53)
Chemistry	1(1)	47(10)	54(13)	66(10)	71(14)	66(14)	305(62)
Economics	2(0)	60(6)	69(8)	70(10)	90(15)	80(15)	371(54)
Mathematics	3(1)	57(6)	60(8)	69(9)	90(12)	78(15)	357(51)
Physics	3(0)	54(5)	51(8)	68(10)	75(14)	80(11)	331(48)
<b>M.Sc.(Tech.)</b>							
Information Systems	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
Gen. Studies	0(0)	2(1)	10(3)	13(3)	7(4)	9(5)	41(16)
Finance	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)
<b>Sub Total</b>	<b>12(2)</b>	<b>295(42)</b>	<b>878(111)</b>	<b>932(130)</b>	<b>1035(152)</b>	<b>1045(141)</b>	<b>4197(578)</b>

**Note:** The numbers in brackets indicate number of female students

Programme	Year of Admission						Total
	2013 and earlier	2014	2015	2016	2017	2018	
<i>B. Higher Degree Programmes</i>							
<b>M.E.</b>							
Chemical	0(0)	0(0)	0(0)	0(0)	24(5)	8(3)	32(8)
Computer Science	1(0)	1(0)	0(0)	0(0)	19(2)	20(7)	41(9)
Mechanical	0(0)	1(0)	0(0)	0(0)	12(0)	20(1)	33(1)
Software Systems	1(0)	2(0)	0(0)	0(0)	24(13)	29(9)	56(22)
Microelectronics	0(0)	0(0)	0(0)	0(0)	23(7)	27(5)	50(12)
Communication Engineering	0(0)	0(0)	0(0)	0(0)	18(5)	22(7)	40(12)
Biotechnology	0(0)	0(0)	0(0)	0(0)	18(17)	21(17)	39(34)
Embedded Systems	2(0)	1(0)	0(0)	0(0)	18(6)	17(6)	38(12)
Design Engineering	0(0)	0(0)	0(0)	0(0)	11(0)	19(1)	30(1)
Manufacturing Sys.Engg	2(0)	0(0)	0(0)	0(0)	14(0)	15(0)	31(0)
Civil with Specialisation in Transportation Engg.	0(0)	2(0)	0(0)	0(0)	14(1)	20(3)	36(4)
Civil with Specialisation in Structural Engg.	0(0)	0(0)	1(0)	0(0)	16(3)	21(3)	38(6)
Civil with Specialisation in Infrastructural Systems	0(0)	0(0)	0(0)	0(0)	8(1)	11(2)	19(3)
<b>Master of Business Administration</b>	0(0)	0(0)	0(0)	0(0)	79(20)	62(17)	141(37)
<b>M.Pharm</b>	0(0)	0(0)	0(0)	0(0)	10(9)	12(7)	22(16)
<b>M.Pharm. (with Specializations in Pharmaceutics Chemistry)</b>	0(0)	0(0)	0(0)	0(0)	10(6)	8(2)	18(8)
<b>M.Pharm. (with Specializations in Pharmaceutics)</b>	0(0)	1(1)	0(0)	0(0)	9(4)	12(8)	22(13)
<b>Sub Total</b>	6(0)	8(1)	1(0)	0(0)	327(99)	344(98)	686(198)
<i>C. Ph.D.</i>	78(30)	34(14)	36(12)	53(20)	91(39)	53(21)	345(136)
<b>Total (On-Campus)</b>	<b>96(32)</b>	<b>337(57)</b>	<b>915(123)</b>	<b>985(150)</b>	<b>1453(290)</b>	<b>1442(260)</b>	<b>5228(912)</b>

#### SUMMARY

	On-Campus			
	Engg.	Sc.	Hum.	Total
First Degree	2336(210)	1449(298)	412(70)	4197(578)
Higher Degree	483(124)	62(37)	141(37)	686(198)
<b>Total</b>	<b>2819(334)</b>	<b>1511(335)</b>	<b>553(107)</b>	<b>4883(776)</b>
Ph.D.				<b>345(136)</b>
<b>Grand Total</b>				<b>5228(912)</b>

**Note:** The numbers in brackets indicate number of female students.

## STATEMENT OF DEGREES AWARDED

Degrees	No. of degrees			
	82 <sup>nd</sup> Award (16.03.2018)		83 <sup>rd</sup> Award (20.07.2018)	
(i) On-campus Programmes				
A. Integrated First Degrees				
<b>B.E. (Hons.)</b>				
Chemical	0(0)		14(1)	
Chemical (with PS)	3(0)		81(13)	
Civil	2(0)		25(2)	
Civil (with PS)	5(0)		53(5)	
Computer Science	2(0)		35(4)	
Computer Science (with PS)	1(1)		142(14)	
EEE	3(1)		21(2)	
EEE (with PS)	1(0)		117(15)	
Electronics & Instrumentation	2(0)		10(4)	
Electronics & Instrumentation (with PS)	3(1)		76(9)	
Electronics & Communication Engineering	0(0)		0(0)	
Electronics & Communication Engineering (with PS)	0(0)		0(0)	
Mechanical	2(0)		26(0)	
Mechanical (with PS)	4(0)		86(6)	
Manufacturing Engg.	1(0)		7(1)	
Manufacturing Engg. (with PS)	2(0)	<b>31(3)</b>	43(2)	<b>736(78)</b>
<b>B.Pharm. (Hons.)</b>	1(1)		8(5)	
<b>B.Pharm. (Hons.) (with Practice School)</b>	1(0)		29(12)	
<b>M.Sc.(Hons)</b>				
Bio. Sciences	1(0)		41(8)	
Bio. Sciences (with PS)	0(0)		6(2)	
Chemistry	0(0)		42(4)	
Chemistry (with PS)	0(0)		2(1)	
Economics	0(0)		46(9)	
Economics (with PS)	0(0)		19(4)	
Mathematics	1(0)		39(5)	
Mathematics (with PS)	0(0)		10(4)	
Physics	2(0)		45(9)	
Physics (with PS)	0(0)	<b>6(1)</b>	5(3)	<b>292(66)</b>
<b>M.Sc. (Tech)</b>				
Engg. Tech	0(0)		0(0)	
Engg. Tech. (with PS)	0(0)		0(0)	
Finance	0(0)		0(0)	
Finance (with PS)	0(0)		0(0)	
General Studies	1(0)		4(1)	
General Studies(with PS)	2(1)		12(4)	
Information Systems	(0)		0(0)	
Information Systems (with PS)	(0)	<b>3(1)</b>	0(0)	<b>16(5)</b>
		<b>40(5)</b>		<b>1044(149)</b>

**Note:** The numbers in brackets indicate number of female students.

Degrees	No. of degrees	
	82 <sup>nd</sup> Award (16.03.2018)	83 <sup>rd</sup> Award (20.07.2018)
<b>B. Higher Degrees</b>		
<b>M.E.</b>		
Civil with specialisation in Structural Engg.	0(0)	2(0)
Civil with specialisation in I Structural Engg. (with PS)	0(0)	8(3)
Civil with specialisation in Infrastructure Engg & Mgmt.	1(1)	2(1)
Civil with specialisation in Infrastructure Engg & Mgmt. (with PS)	0(0)	4(1)
Civil with specialisation in Transportation Engg.	1(0)	6(3)
Civil with specialisation in Transportation Engg. (with PS)	0(0)	4(0)
Civil with specialisation in Infrastructure Systems	0(0)	0(0)
Chemical	0(0)	6(1)
Chemical (with PS)	0(0)	7(2)
Computer Science	0(0)	2(0)
Computer Science (with PS)	0(0)	19(6)
Communication Engineering	0(0)	1(0)
Communication Engineering (with PS)	0(0)	10(3)
Embedded Systems	0(0)	0(0)
Embedded Systems (with PS)	0(0)	10(4)
Master of Business Administration	0(0)	2(1)
Master of Business Administration (with PS)	0(0)	60(18)
Master of Public Health	0(0)	0(0)
Master of Public Health (with PS)	0(0)	0(0)
Mechanical	0(0)	10(1)
Mechanical (with PS)	0(0)	5(0)
Electrical with specialization in power Electronics & Drives	0(0)	0(0)
Electrical with specialization in power Electronics & Drives (with PS)	0(0)	0(0)
Software Systems	0(0)	0(0)
Software Systems (with PS)	0(0)	24(10)
Microelectronics	0(0)	0(0)
Microelectronics (with PS)	0(0)	11(0)
Biotechnology	0(0)	4(4)
Biotechnology (with PS)	0(0)	7(6)
Manufacturing Systems Engg.	0(0)	3(0)
Manufacturing Systems Engg. (with PS)	0(0)	7(1)
Design Engineering	0(0)	3(0)
Design Engineering (with PS)	0(0)	4(0)
<b>M.Pharm.</b>	0(0)	1(1)
<b>M.Pharm.(with PS)</b>	0(0)	5(3)
M.Pharm.(with specialization in Pharmaceutics)	0(0)	2(0)
M.Pharm.(with specialization in Pharmaceutics) (with PS)	0(0)	8(3)
M.Pharm.(with specialization in Pharmaceutics Chemistry)	0(0)	2(0)
M.Pharm.(with specialization in Pharmaceutics Chemistry) (with PS)	0(0)	4(2)
<b>Sub Total</b>	<b>2(1)</b>	<b>243(74)</b>
<b>C. Ph.D.</b>	35(18)	20(10)
<b>Total (On Campus)</b>	<b>77(24)</b>	<b>1307(233)</b>

**Note:** The numbers in brackets indicate number of female students.

## SUMMARY

### (i) On-Campus Programmes

Discipline	Engineering			Science			Humanities			Total		
	82 <sup>nd</sup>	83 <sup>rd</sup>	Total	82 <sup>nd</sup>	83 <sup>rd</sup>	Total	82 <sup>nd</sup>	83 <sup>rd</sup>	Total	82 <sup>nd</sup>	83 <sup>rd</sup>	Total
<b>Integrated First Degree</b>	31(3)	736(78)	767(81)	6(1)	227(53)	233(54)	3(1)	81(18)	84(19)	40(5)	1044(149)	1084(154)
<b>Higher Degrees</b>	2(1)	159(46)	161(47)	0(0)	22(9)	22(9)	0(0)	62(19)	62(19)	2(1)	243(74)	245(75)
<b>Ph.D.</b>	-	-	-	-	-	-	-	-	-	35(18)	20(10)	55(28)
<i>Total</i>										77(24)	1307(233)	1384(257)

**Note:** The numbers in brackets indicate number of female students.

### LIST OF ORGANIZATIONS WHICH CONDUCTED CAMPUS INTERVIEWS

S.No.	Name of the Company	Number of Students		Sector
		Interviewed	Offered	
1.	Accenture	30	19	IT
2.	Adobe	5	2	IT
3.	Aeques	2	1	CH
4.	Amazon	27	13	IT
5.	Amazon Business	4	2	CO
6.	Anarock	11	5	IT
7.	App Dynamics	3	1	IT
8.	App Orbit	5	2	IT
9.	Apple	7	3	IT
10.	Arcesium	5	2	IT
11.	Ashoka Buildcon	5	2	IF
12.	ATCS	8	5	IT
13.	Axis Bank	13	5	BF
14.	Bain Capability Centre	6	3	CO
15.	Bajaj Auto	7	2	MF
16.	BCG	6	3	CO
17.	Beehyv Software Solutions P Li.	11	6	IT
18.	Bharat Seats Lim	3	1	MF
19.	Birla Century	4	1	MF
20.	BNY Mellon	7	2	IT
21.	Bombardier	7	3	MF
22.	Bookeventz	8	3	OT
23.	Byzus	9	6	OT
24.	Cairn India	3	1	CH
25.	Capgemini	43	34	CO
26.	CDOT	3	1	ET
27.	CGI	9	4	IT
28.	Chiripal Group	3	1	MF
29.	Cholamandalam	5	1	OT
30.	Cisco	11	5	ET
31.	Citi Bank	31	23	IT
32.	Cognizant	19	11	OT
33.	Credit Suisse	7	3	BF
34.	Cummins	5	1	MF
35.	Cyient	9	4	IT
36.	Cypress Semiconductors	10	4	ET
37.	Daikin Belgium	3	1	MF
38.	DBOI	14	7	BF
39.	DE Shaw	7	3	IT
40.	Decision Resource Group	5	2	ANA



S.No.	Name of the Company	Number of Students		Sector
		Interviewed	Offered	
41.	Development Consultants P Lim	3	1	IF
42.	Directi	10	5	IT
43.	Dr Reddy's Lab	7	3	BP
44.	Dream Vu	10	4	OT
45.	E&Y	6	2	IT
46.	Ecozen	3	1	MF
47.	Edgeverve	11	6	IT
48.	Education Initiative	5	2	OT
49.	Embibe	7	2	OT
50.	EXL	11	6	ANA
51.	Exxon Mobil	9	4	MF
52.	Flipkart	31	16	IT
53.	Fractal Analytics	3	2	ANA
54.	Fujikura	5	1	ET
55.	Futures First	7	5	BF
56.	GE India	5	1	MF
57.	Genpact	3	2	ANA
58.	GGK Tech	13	6	IT
59.	Goldman Sachs	19	9	IT
60.	Grey Orange	5	3	IT
61.	Gwyniebee	7	2	IT
62.	HereMaps	2	1	IT
63.	Hero Moto Corp	4	2	MF
64.	Hindalco	7	3	CH
65.	Holiday IQ	3	2	OT
66.	Honeywell	4	2	CH
67.	Hotstar	2	1	IT
68.	HSBC	28	17	IT
69.	Hyundai Motors	2	1	MF
70.	IBM	3	2	IT
71.	ICICI	11	5	BF
72.	IFB	3	2	MF
73.	IMI	2	1	IT
74.	IMS HEALTH	3	1	ANA
75.	India Mart	5	4	OT
76.	Indus Insights	12	5	CO
77.	Infor	9	3	ANA
78.	Infosys	3	1	IT
79.	Inmobi	11	8	ANA
80.	Intas Pharma	3	2	BP
81.	Intel	17	14	ET
82.	IQVIA	19	15	BP
83.	iRunway	2	1	CO
84.	ITL	3	1	IF

S.No.	Name of the Company	Number of Students		Sector
		Interviewed	Offered	
85.	JPMC	20	17	BF
86.	JPMS	3	2	IT
87.	JSW	2	1	MF
88.	Kinapse	3	2	ANA
89.	KPIT	22	12	IT
90.	KPMG	9	5	ANA
91.	L&T Infotech	20	11	IT
92.	L&T PGET	11	9	IF
93.	L&T Technologies	2	1	IT
94.	Lea Associates	12	10	IF
95.	LHDINDIA PRIVATE LIMITED	2	1	IF
96.	Market Front	3	2	IT
97.	Maruti Suzuki	9	4	MF
98.	Mastercard	7	3	IT
99.	Mathworks	3	2	IT
100.	Maybank	5	2	BF
101.	Mckinsey	3	2	CO
102.	Medialq	4	2	IT
103.	Mediatek	10	4	ET
104.	Mehta Group	3	2	MF
105.	Michelin	9	5	MF
106.	Microsoft	35	22	IT
107.	Moolchand Healthcare	2	1	OT
108.	Morningstar	5	3	BF
109.	MuSigma	7	3	IT
110.	Myntra	8	5	IT
111.	Nagarro	6	4	IT
112.	Nestle	4	2	MF
113.	Newgen Software	2	1	IT
114.	Next Education	5	3	OT
115.	NextGen PMS	2	1	IT
116.	Nomura	8	3	CO
117.	Nucleus Software Exports Pvt. Ltd	2	1	IT
118.	Nutanix	9	4	IT
119.	Nvidia	4	2	ET
120.	Ola	19	9	IT
121.	Opera	4	2	IT
122.	Oracle	36	26	IT
123.	Orbees	11	6	ANA
124.	Oyo	15	9	IT
125.	Paypal	7	3	IT
126.	PayU	8	4	IT
127.	Pfizer	5	3	BP
128.	Presidency University	3	1	OT

S.No.	Name of the Company	Number of Students		Sector
		Interviewed	Offered	
129.	PWC	27	18	IT
130.	Q3 Infotech P Lim	10	5	IT
131.	Qualcomm	28	21	ET
132.	Quantiphi	18	10	ANA
133.	Quantum Phinance	9	3	ANA
134.	Qubole	5	3	IT
135.	Rao IIT	7	4	OT
136.	Reflexis	8	3	IT
137.	RIL	7	3	CH
138.	Rubique	3	1	OT
139.	Samsung Bangalore	32	26	IT
140.	Samsung Delhi	21	16	IT
141.	Samsung Hardware	9	6	ET
142.	Samsung Noida	13	8	IT
143.	SAP Labs	7	3	IT
144.	Schneider	8	3	IT
145.	Sedemac	7	2	ET
146.	Shiftery	6	2	IT
147.	Shriram Transport Finance Lim	3	1	BF
148.	Siemens Ltd	2	1	MF
149.	Sling Media	4	1	IT
150.	Smartprix	2	1	IT
151.	Societe Generale	5	2	IT
152.	Sokrati	11	4	ANA
153.	Sterlite	7	3	CH
154.	Swiggy	3	1	IT
155.	Synergiz Global	5	1	IF
156.	Tata Autocomp	4	2	MF
157.	Tata Steel	9	3	MF
158.	Tata Trust	13	4	OT
159.	TCG	7	2	IT
160.	Telstra	6	2	IT
161.	Teradata	5	2	IT
162.	Tesco	41	20	IT
163.	Tesco Analytics	5	2	ANA
164.	Texas Instruments	7	3	ET
165.	The Math Company	2	1	ANA
166.	Thornton Tomasetti	5	2	IF
167.	Times Internet	2	1	IT
168.	Toshiba	5	3	IT
169.	Total Environment	7	3	ANA
170.	Tower Research Capital	8	2	IT
171.	Transorg	6	2	ANA
172.	Uber	3	2	IT

S.No.	Name of the Company	Number of Students		Sector
		Interviewed	Offered	
173.	UBS	17	8	IT
174.	Unacademy	5	1	IT
175.	Upgrad	7	5	OT
176.	UST Global	4	3	IT
177.	Value Edge	7	3	BP
178.	Vedanta	6	4	MF
179.	VFS Global	9	4	ANA
180.	Vidya Mandir Classes	5	1	OT
181.	VISA	3	1	IT
182.	VMS Consultants	4	1	IF
183.	VMWare	4	2	IT
184.	Walmart	11	6	IT
185.	William O'Neil	3	1	BF
186.	Wipro	19	12	IT
187.	Xilinx	4	2	ET
188.	Youstart Technologies	2	1	IT
189.	Zemoso	6	3	IT
190.	Zen Drive	9	4	IT
191.	Zeotap	8	3	BF
192.	Zinnov	8	4	CO
193.	ZS Associates	29	24	CO
		1659	893	

### Summary

Total No. of companies: 193  
Total No. of students interviewed: 1659  
Total No. of appointments offered: 893

### Legend:

ANA: Analytics, BF: Banking and Finance, BP: Biopharm, CH: Chemical, CO: Consulting, ET: Electronics, IF: Infrastructure, IT: Information Technology, MF: Manufacturing, OT: Others

**LIST OF PROJECTS COMPLETED UNDER CERTAIN PROJECT-ORIENTED COURSES IN THE YEAR 2018**

**Second Semester 2017-2018 and First Semester 2018-2019**

Design Project			
S. No	Name of Student	Faculty Name	Project Title
1	AAKRITI AGRAWAL	Anu Gupta	ANALYSIS AND IMPLEMENTATION OF NEURON CELL IN SILICON
2	AAKRITI AGRAWAL	Sainath Bitragunta	STUDY OF ACTIVE NOISE CANCELLATION USING RECURRENT NEURAL NETWORK
3	AASTIK KOSHITA	Ajay Kumar Pani	STUDY AND COMPARISON OF PID CONTROLLER USING TECHNIQUES
4	AAYUSHMAAN JAIN	Shan Balasubramaniam	DEFINING VIRTUAL MACHINE FOR DWARF COMPILER.
5	ABHINAV GARG	Vinod Kumar Chaubey	FIBRE LASERS USING BRAGG GRATING
6	ABHINAV GUPTA	Hitesh Dutt Mathur	ENERGY MANAGEMENT OF MICROGRID USING V2G
7	Abhinav Rawat	Devesh Samaiya	DESIGN OF DEVELOPMENT BOARDS FOR STM8 MICROCONTROLLERS.
8	ABHIROOP PRASAD	Amritansh Bhanot (RS)	SEGMENTATION OF BRACHIAL PLEXUS IN ULTRASOUND IMAGES
9	ABHISHEK DADHICH	S Gurunarayanan	ARCHITECTURAL EXPLORATION AND HIGH SPEED ARITHMETIC CIRCUIT DESIGN
10	ABHISHEK GUPTA	Jl Raheja	MULTIPERSON POSE ESTIMATION FROM REAL TIME VEDIO
11	ABHISHEK GUPTA	Navin Singh	DNA FLEXIBILITY ON SHORT LENGTH SCALES PROBED BY ATOMIC FORCE MICROSCOPY
12	ABHISHEK JAIN	Sumeet Saurav	OBJECT DETECTION IN UAV VIDEOS
13	ABHISHEK VAIBHAV JOSHI	Shan Balasubramaniam	PARALLELIZATION OF VIRTUAL MACHINE
14	ABHRAN ANURAG	Smita Raghuvanshi	LIFE CYCLE ASSESSMENT (LCA) OF RO SYSTEMS.
15	ADITI GUPTA	Hari Om Bansal	POWER OPTIMIZATION IN HEVS USING INTELLIGENT TECHNIQUES
16	ADITYA CHAUHAN	Pankaj Kumar Sharma	DEVELOPING INTERESTING METHODOLOGY FOR BIOLOGY TEACHING.
17	ADITYA DESWAL	Gautam Singhvi	DEVELOPMENT OF SOFTWARE TOOL FOR DETERMINATION OF PHARMAKINETIC PARAMETER OF DRUG DELIVERY SYSTEM.
18	ADITYA MUKHERJEE	J N Bandopadhyay	TO EXPLORE AND EXPERIMENT ON THE RUNNING OF QUANTUM COMPUTING ALGORITHMS VIA PYTHON CODE
19	ADITYA NARKHEDE	Shuvendu N Patel	NONLINEAR DYNAMIC ANALYSIS OF FUNCTIONALLY GRADED DOUBLY CURVED SHELL PANELS.
20	Aditya Sharma	Sushila Shekhawat	FOLK CULTURE OF RAJASTHAN: A STUDY OF MURAL STORY BOARDS BY SPECIFIC ETHNIC COMMUNITY BHOPA.
21	ADITYA SINGH	Smita Raghuvanshi	LIFE CYCLE ASSESSMENT STUDIES OF FLUE GAS EMISSIONS FROM CEMENT INDUSTRIES
22	ADITYA SUNIL VENIKAR	Raj Kumar Gupta	DESIGN AND FABRICATION OF BREWSTER ANGLE MICROSCOPE
23	AJAY NATHAWAT	Prateek Kala	USING ARDUINO FOR AUTOMATION AND MONITORING IN INDUTRIAL PROCESSES
24	AJAY SHRINIVAS.M	Shamsher B Singh	BIONEUTRALIZATION OF ALKALINE RED MUD AND ITS APPLICATION AS A CONSTRUCTION MATERIAL
25	AKHIL AGRAWAL	Lavika Goel	CLASSIFICATION OF GRAVITATIONAL WAVE IMAGES USING CNN UNDER DEEP NEURAL NETWORKS.

Design Project			
S. No	Name of Student	Faculty Name	Project Title
26	AKSHAT MECHU	Krishna Muniyoor	COMPREHENSIVE ANALYSIS OF CRYPTO-CURRENCY
27	AKSHAY GOEL	Amit Dua	REALISING EFFECTIVE UTILIZATION OF VEHICULAR NETWORK USING SOFTWARE DEFINED NETWORKS.
28	AKSHAY KRISHNA S	Samarth Singh	EXPLORING AI BASED MODELS FOR SMAS (SHAPE MEMORY ALLOY)
29	AKSHIT KUMAR	Suresh Gupta	APPLICATION OF DATA ANALYTICS IN CHEMICAL INDUSTRIES
30	AMAN AGARWAL	Kuldeep Kumar	TEST CASE OPTIMISATION USING MACHINE LEARNING APPROACHES
31	AMAN BANSAL	Dipendu Bhunia	PUSHOVER ANALYSIS
32	AMAN GUPTA	Suresh Gupta	APPLY THE KNOWLEDGE OF CHEMICAL ENGINEERING AND MACHINE LEARNING TO CARRY OUT THE DATA ANALYSIS OF INDUSTRIAL DATA.
33	AMAN KUMAR RANA	G Muthukumar	NUMERICAL INVESTIGATION OF MODELING AND ANALYSIS OF BASALT FIBRE REINFORCED BEAMS.
34	AMEY DIPAK AGRAWAL	Surekha Bhanot	GENERALIZED FRAMEWORK FOR REINFORCEMENT LEARNING IN ROBOTICS
35	AMIT TIWARY	Meghana Tare	SEGMENTATION OF BRACHIAL PLEXUS IN ULTRASOUND IMAGES.
36	AMITJDEEP SINGH	Jl Raheja	MULTIPERSON POSE ESTIMATION FOR REAL TIME VIDEO
37	ANAMAYA VISHAL JHA	Hitesh Dutt Mathur	IMPLICATIONS OF VEHICLE TO GRID, IN MICROGRID SCENARIO. IOT APPLICATION IN SMART GRID SCENARIO.
38	ANAMYA AGARWAL	Krishnendra Shekhawat	AUTOMATED GENERATION OF FLOOR PLANS
39	ANANT ANURAG	Avinash Gautam	DESIGN OF STRATEGIES FOR AUTONOMOUS MANEUVER OF LAND BASED MULTIPLE ROBOTS FOR UNKNOWN TERRAIN EXPLORATION AND COGNITIVE DECISION MAKING.
40	ANANT RUNGTA	Kavindra Kandpal	DESIGN OF LOW NOISE AMPLIFIER AND 1ST ORDER GM-C FILTER FOR RF APPLICATION.
41	ANIMESH JAIN	Hari Om Bansal	SELF BALANCING OF BIKE USING GYROSCOPE AND DATA DRIVEN PID CONTROLLER
42	ANINDYA SEN	Srinivas Appari	VALUE-ADDED CHEMICALS FROM CO2
43	ANIRUDH AGGARWAL	Anu Gupta	DESIGN OF OPERATIONAL TRANSDUCTANCE AMPLIFIER FOR TOLERANCE TO PVT VARIATIONS
44	ANIRUDH AGGARWAL	Kavindra Kandpal	COMPACT MODELING OF THIN FILM TRANSISTORS
45	ANIRUDH TUSNIAL	Srikanta Routroy	DEVELOPMENT OF TISM FOR SUPPLIER DEVELOPMENT IMPLEMENTATION
46	ANIRUDH TUSNIAL	Kuldip Singh Sangwan	DEVELOPING A FRAMEWORK FOR OPTIMIZATION OF REVERSE LOGISTICS IN SUPPLY CHAIN
47	ANKIT RAJ	Gajendra S Chauhan	ANALYZING CURRENT TRENDS IN INTERNET MARKETING.
48	Ankur Nangalia	Sushila Shekhawat	FOLK CULTURE OF RAJASTHAN: A STUDY OF MURAL STORY BOARDS BY SPECIFIC ETHNIC COMMUNITY BHOPA.
49	ANKUSH KUMAR	Dipendu Bhunia	USE OF PIEZOELECTRIC MATERIALS FOR VIBRATION DAMPING AND ELECTRICITY PRODUCTION IN MEGASTRUCTURES
50	ANKUSH P A	Chandra Shekhar	MULTI-CORE ARCHITECTURES- VLSI ARCHITECTURE FOR HIGH-PERFORMANCE REAL-TIME APPLICATIONS.
51	ANMOL GUPTA	Amit Jain	MODELING AND SIMULATION OF MSW TREATMENT TECHNOLOGIES
52	ANMOL RATHI	G Muthukumar	CRACK PROPOGATION ANALYSIS OF RCC BEAM
53	ANMOL SINGHAL	Navneet Goyal	GENERATING DESCRIPTIONS FOR VIDEOS
54	ANMOL SINGHAL	Navneet Goyal	GENERATING DESCRIPTIONS FOR VIDEOS

Design Project			
S. No	Name of Student	Faculty Name	Project Title
55	ANSHUL JAIN	Anu Gupta	DESIGN OF LOW VOLTAGE LOW POWER SELF BIASED CMOS CURRENT REFERENCE FOR SELF CASCODE MOS AMPLIFIERS
56	ANSHUMAN	Rajneesh Kumar	DESIGNING MOVING ENERGY CLUSTER DYNAMICS
57	ANSHUMAN SHUKLA	Ajay Kumar Pani	MODEL DEVELOPMENT FOR PREDICTION OF DIESEL FUEL PARAMETERS
58	ANUBHAV PANDEY	HK Mohanta	MODELING AND SIMULATION OF A CATALYTIC REFORMING UNIT
59	ANUBROLU VASUDEV	Manoj Kannan	DESIGN AND IMPLEMENTATION OF A PROTOTYPE FOR A GENERALIZED ARTIFICIALLY INTELLIGENT AND ADAPTIVE (GAIA) MODELING SUITE FOR MULTIPURPOSE REGULATORY TESTING
60	ARIHANT RANKA	Amit Jain	DESIGN AND FABRICATION OF AN EXPERIMENTAL SETUP TO STUDY THE AFFECT WATER MIST ON POOL FIRES.
61	ARJUN MAHENDRU	Gautam Singhvi	DEVELOPMENT OF A SOFTWARE TOOL TO DETERMINE AND EVALUATE THE PHARMACOKINETIC PARAMETERS OF DRUG DELIVERY SYSTEM.
62	ARKA TALUKDAR	Kamlesh Tiwari	ADAPTING NEURAL NETWORK TO DECISION TREE TO IMPROVE PERFORMANCE
63	ARKID KALYAN BERA	Chandra Shekhar	DESIGN OF A REDUCED INSTRUCTION SET COMPUTER ARCHITECTURE (RISC) PROCESSOR
64	ARPIT AGARWAL	Uma S Dubey	PRESERVATION OF IMMUNOLOGICAL CHARACTERISTICS OF MILK.
65	ARPIT KUMAR TIWARI	Hitesh Dutt Mathur	IOT BASED INTERCOMMUNICATION OF MICROGRIDS THROUGH CLOUD.
66	ARUSHI MADAN	J L Raheja	EARLY DETECTION OF ORAL CANCER USING MACHINE LEARNING
67	ARVIND.K.R	Chandra Shekhar	DESIGN OF A PIPELINED RISC PROCESSOR
68	ARVIND.K.R	K K Gupta	HARDWARE ACCELERATOR FOR TRAFFIC SIGN RECOGNITION (CEERI PROJECT UNDER CO-INSTRUCTOR SANJAY SINGH)
69	ARYAN SHARMA	Keyur Joshi	GENERALIZED INCOMPRESSIBLE FLOW SOLVER FOR COMPLEX GEOMETRY
70	ARYAN SHARMA	Smita Raghuvanshi	LIFE CYCLE ASSESSMENT STUDIES OF FLUE GAS EMISSIONS FROM CEMENT INDUSTRIES.
71	ASHISH AMAN	Lavika Goel	PLATE TECTONICS BASED OPTIMISATION
72	ASHISH BANSAL	Nilanjan Chattaraj	BALANCING AN INVERTED PENDULUM ROBOT
73	ASHUTOSH SANCHETI	Surekha Bhanot	FACE RECOGNITION USING DEEP NEURAL NETWORKS
74	ASHWIN TAYADE	Lavika Goel	DESIGN OF COMPUTATIONAL BASED QUESTION ANSWERING SYSTEM
75	ATUL JALA	Vishal Saxena	ADDITIVE MANUFACTURING OF ORGANS
76	BHANSALI ABHINAV ARVIND	Abhijit R Asati	NON-CONTACT WATER LEVEL SENSING SYSTEM
77	BHARAT KUMAR GANDHI	Anupam Singhal	MODELLING OF WASTE WASTER TREATMENT PLANTS AND SIMULATION OF VARIOUS WASTEWATER TREATMENT PROCESSES USING MODELLING AND SIMULATION SOFTWARES.
78	BHARATH R NAIR	Bijoy Kumar Raut	DESIGN OF RAIL INSPECTION ROBOT
79	BHUTADA ANUP ANIL	Bhanu Vardhan Reddy	IMAGE PROCESSING AND ARTIFICIAL INTELLIGENCE TO BUILD A 3D PACKED BED GEOMETRY.
80	BILWASIVA BASU MALLICK	Vinay Chamola	RESEARCH FRONTIERS IN SOLAR POWERED CELLULAR NETWORK
81	C PRANAY REDDY	Sangita Yadav	THE FINITE ELEMENT METHOD IN ELECTROMAGNETICS.
82	CHARU JAIN	Shibasish Chowdhury	APPLICATION OF MACHINE LEARNING ON BIOLOGICAL DATABASE
83	CHE TAN S JOIS	Amol M R Marathe	HARMONIC RESPONSE OF NON-SMOOTH OSCILLATORS

Design Project			
S. No	Name of Student	Faculty Name	Project Title
84	CHINTHA AKASH	Devesh Samaiya	DESIGN OF PORTABLE SMART LOCK SYSTEM
85	CHIRAG GYANI	Rajdeep Chowdhury	STUDYING MIRNA-MRNA INTERACTION AND DEVELOPING A MODEL FOR THE SAME.
86	CHIRAG KHATRI	Ashutosh Kar	DESIGN AND ANALYSIS OF HYBRID ACTIVE FED FORWARD CONTROLLER USING ADAPTIVE FILTERS
87	DEBARCHAN BASU	Ajay Kumar Pani	APPLICATION OF MACHINE LEARNING TO DETECT OPERATIONAL FAILURE IN INDUSTRIAL PUMP.
88	DEBOLINA CHAKRABARTY	Banasri Roy	DEVELOPMENT OF NICKEL AND MODIFIED NICKEL CATALYSTS
89	DEEP VIKAS KULKARNI	Raj Kumar Gupta	DESIGN AND FABRICATION OF BREWSTER ANGLE MICROSCOPE
90	DEEPANKAR JAIN	Jahagirdar Ankush Chandrakant	ADAPTIVE IRRIGATION SYSTEM
91	DESHMUKH DEEPANKAR YESHWANT	Anu Gupta	DESIGN OF LOW VOLTAGE LOW POWER SELF BIASED CMOS CURRENT REFERENCE.
92	DESHPANDE SHAUNAK SHIRISH	Keyur Joshi	DEVELOPING AN INCOMPRESSIBLE FLOW SOLVER FOR STAGGERED STRUCTURED GRID ON CPU USING OPEN MP DIRECTIVES
93	DEVASHISH GIRISH BONDE	Varun Sharma	EXPLORING THE BIO-MEDICAL APPLICATIONS OF 3D PRINTING TECHNOLOGY
94	DEVASTHALE DHRUVA DILIP	Chandra Shekhar	VLSI ARCHITECTURE: CACHE CONTROLLER
95	DEVESH NAG	Kamlesh Tiwari	CONTENT ANALYZER FOR SEARCH FILTERING USING NATURAL LANGUAGE
96	DHANANJAY MANTRI	Jl Raheja	DEEP LEARNING METHODS FOR MEDICAL IMAGE CLASSIFICATION
97	DHANANJAY NAHATA	Lavika Goel	CROP RECOMMENDATION SYSTEM USING NATURE INSPIRED TECHNIQUES.
98	DHARAP MIHIR SACHIN	Hari Om Bansal	DESIGN AND DEVELOPMENT OF BI-DIRECTIONAL CONVERTER FOR HYBRID VEHICLE APPLICATIONS.
99	DIGVIJAY BANSAL	Anu Gupta	DESIGN AND MODELLING OF BIOMEDICAL SYSTEMS.
100	DIVANSHU GUPTA	Chandra Shekhar	APPLICATIONS OF NATURE-INSPIRED OPTIMIZATION ALGORITHMS IN INVENTORY PROBLEM.
101	DIVITA GUPTA	Meghana Tare	STUDY OF MITOCHONDRIAL GENES.
102	DIVYA RATHORE	P Srinivasan	COMPARATIVE ANALYSIS OF AIR COOLED AND WATER COOLED CONDENSER FOR A SPECIFIC CASE STUDY.
103	GAONKAR SAUMIL SHAMSUNDER	NV Muralidhar Rao	APPLICATIONS OF NEURAL NETWORKS IN FINANCE
104	GARIMA KHANDELWAL	Keyur Joshi	DEVELOP MOVING MESH CAPABILITY IN AN INCOMPRESSIBLE FLOW SOLVER
105	GARV SACHDEVA	Krishnendra Shekhawat	AUTOMATED GENERATION OF FLOOR-PLANS
106	GARV SHARMA	Avinash Gautam	IMPLEMENTATION OF HIGH SPEED VISION ALGORITHMS ON A MOBILE ROBOT
107	GAURAV JAIN	Pratik N Sheth	MODELLING AND SIMULATION OF BIOMASS GASIFICATION SYSTEM.
108	GAURAV RAJENDRA MANDLECHA	NV Muralidhar Rao	APPLICATION OF NEURAL NETWORKS IN FINANCE
109	GHIVDONDE ROHIT RADHESHYAM	Navneet Goyal	FAMILY TREE ESTABLISHMENT USING KINSHIP VERIFICATION
110	GHIVDONDE ROHIT RADHESHYAM	Lavika Goel	BIOGEOGRAPHY BASED OPTIMIZATION WITH EXTINCTION AND EVOLUTION FOR FACE RECOGNITION
111	GOKAVARAPU SAI SIRISH	Varun Sharma	EXPLORING THE BIO-MEDICAL APPLICATIONS OF 3D PRINTING TECHNOLOGY
112	HARSH JAISWAL	Arya Kumar	TO DESIGN AN AUTOMATIC FRAMEWORK TO SELECT AND MANAGE PORTFOLIO FROM THE BSE
113	HARSH KANODIA	Prabhat Nath Jha	TO DESIGN AN ORGANISM FOR BIO-FUEL



Design Project			
S. No	Name of Student	Faculty Name	Project Title
			PRODUCTION BY SYNTHETIC BIOLOGY APPROACHES
114	HARSH SRIVASTAVA	Anupam Singhal	MODELLING AND SIMULATION OF WASTE WATER TREATMENT PLANT AND RECYCLING SYSTEM AT BITS PILANI, PILANI CAMPUS.
115	HARSHIL BHATT	Ajay Kumar Pani	MODEL DEVELOPMENT FOR PREDICTION OF DIESEL FUEL PARAMETERS.
116	HARSHIT GUPTA	Suresh Gupta	APPLICATION OF DATA ANALYTICS IN CHEMICAL INDUSTRIES.
117	HARSHITA GOYAL	Navneet Goyal	AUTOMATIC ORGANIZATION OF PICTURES
118	HARSHITA VERMA	Shilpi Garg	DESIGNING APTAMERS TO IDENTIFY AND TARGET PARASITE INFECTED ERYTHROCYTES.
119	HARSHVARDHAN MAHESHWARI	Monika Gupta	DESIGN PROJECT
120	HARSHVARDHAN MAHESHWARI	Monika Gupta	DESIGN PROJECT
121	HARSHVARDHAN MAHESHWARI		MODELLING AND MEASURING THE EFFECTIVENESS OF CARBON TAX: A CASE STUDY OF BRITISH COLUMBIA
122	HITESH AHUJA	Chandra Shekhar	DESIGNING A RISC CORE-SUBSET.
123	HITESH SONI	G Muthukumar	CRACK PROPAGATION ANALYSIS OF R.C.C. BEAM
124	I.SIDDARTHA	Kuldip Singh Sangwan	AN OPTIMIZATION FRAMEWORK FOR A REVERSE LOGISTICS NETWORK
125	ISHAAN AHUJA	Raj Kumar Gupta	DESIGN AND FABRICATION OF BREWSTER ANGLE MICROSCOPE
126	ISHAN GUPTA	S Gurunarayanan	ANALYSIS OF PERFORMANCE OF HIGH SPEED ADDER ARCHITECTURES.
127	ISHIKA SOMANI	Pratik N Sheth	TECHNOECONOMIC FEASIBILITY STUDY TO GENERATE NEW REVENUE STREAMS FROM SYN GAS
128	JAI AGARWAL	M S Dasgupta	STUDY OF PLYING OF FRP
129	JAIN SOHAM DUNGERCHAND	K K Gupta	BCI INTERFACE DESIGN FOR DRONE/ MAV CONTROL.
130	JAYESH AGARWAL	Kuldip Singh Sangwan	APPLICATION OF NETWORK TECHNIQUES IN PROJECT MANAGEMENT
131	JOY MUKHERJEE	Lavika Goel	CLASSIFICATION OF LIGO GRAVITATIONAL WAVE DATA USING DEEP LEARNING WITH CONVOLUTIONAL NEURAL NETWORK
132	K DHANUSH	Nilanjan Chattaraj	BALANCING AN INVERTED PENDULUM ROBOT
133	K PAVITHRAN	D Bandyopadhyay	STUDY TO FOLLOW TREND OF POLLUTION LEVEL IN DIFFERENT INDIAN CITIES: A STATISTICAL APPROACH
134	K. SURYA SIDHARTHA	Suresh Gupta	APPLICATION OF CFD IN A BIORECTOR
135	KALGAONKAR PARTH SAMEER	Chandra Shekhar	DESIGN AND IMPLEMENTATION OF SPI MEMORY CONTROLLER ON FPGA USING ZYNQ SOC
136	KAPIL AGARWAL	Lavika Goel	CROP RECOMMENDATION SYSTEM USING NATURE INSPIRED TECHNIQUES.
137	KARAN JAIN	Keyur Joshi	DEVELOPMENT OF CFD CODE BASED ON LATTICE BOLTZMANN METHOD
138	KARAN MAKHIJA	Lavika Goel	A WEB BASED DASHBOARD FOR MOOC INSTRUCTORS
139	KARTHIK SURESH	Niladri Sarkar	INVESTIGATION OF ELECTRON-PHONON INTERACTIONS ON NANOWIRE FETS USING NEGF METHOD.
140	KAUSTUBH SHARMA	Kuldeep Kumar	ANALYZING ENCRYPTED NETWORK TRAFFIC TO IDENTIFY USER ACTIVITY
141	KESHAV JAIN	Kuldip Singh Sangwan	APPLICATION OF NETWORK TECHNIQUES IN PROJECT MANAGEMENT
142	KESHAV JAIN	Srikanta Routroy	VALUE STREAM MAPPING OF A MANUFACTURING FIRM
143	KHAN FAUZAN ZAID MOHAMMED SHAFIQR REHMAN	Jennifer Ranjani J.	ENSURING DATA INTEGRITY FOR IOT

Design Project			
S. No	Name of Student	Faculty Name	Project Title
144	KHANDELWAL KSHITIJ GOKUL	Chandra Shekhar	DESIGN OF A RISC PROCESSOR
145	KHANDELWAL RASHI SANJAY	Shibasish Chowdhury	STUDYING THE INTERACTION BETWEEN NUCLEOTIDES(HOTSPOTS) IN DIFFERENT DNA STRUCTURES(A,B,Z) USING GRAPH THEORY AND MACHINE LEARNING APPROACH.
146	KUCHIBHOTLA SRI RAGHU CHARAN	Rajesh Kumar	BENDING ANALYSOS OF SINGLE WALLED CARBON NANOTUBES REINFORCED PLATE
147	LAKSHYA KUMAR SHARMA	Ajay Kumar Pani	NON LINEAR MODEL DEVELOPMENT IN CRUDE DISTILLATION UNIT.
148	LAVANYA K	Nitin Chaturvedi	STUDY AND DESIGN OF NON-VOLATILE MEMORY CIRCUITS FOR NEUROMORPHIC APPLICATIONS
149	LAVANYA K	Anu Gupta	DESIGN AND ANALYSIS OF ENHANCED LINEARITY ANALOG SYSTEM
150	LOVISH ARORA	Monika Gupta	MODELLING AND MEASURING THE EFFECTIVENESS OF CARBON TAX
151	LOVISH ARORA		MODELLING AND MEASURING THE EFFECTIVENESS OF CARBON TAX: A CASE STUDY OF BRITISH COLUMBIA
152	LOVISH BATRA	Ajay Kumar Pani	STUDY AND COMPARISON OF PID CONTROLLER TUNING TECHNIQUES
153	M AVADESH	Navneet Goyal	KINSHIP VERIFICATION AND FAMILY ALBUM ORGANIZATION
154	M AVADESH	Navneet Goyal	KINSHIP VERIFICATION AND FAMILY ALBUM ORGANIZATION USING DEEP AND METRIC LEARNING
155	MADDIPATI NIKHIL	Manoj Kumar	DESIGN AND ANALYSIS OF SEISMIC DAMPERS.
156	MADHAV GUPTA	Krishna Muniyoor	COMPREHENSIVE ANALYSIS OF CRYPTO-CURRENCY
157	MANAV FAKEY	Satyendra Kr Sharma	BLOCKCHAIN IN SUPPLY CHAIN MANAGEMENT
158	MANISH KUMAR	Dipendu Bhunia	USE OF PIEZOELECTRIC MATERIALS FOR VIBRATION DAMPING AND ELECTRICITY PRODUCTION IN MEGA STRUCTURES
159	MANISHA JHA	Rajneesh Kumar	SOCIO-ECONOMIC IMPACT OF RENEWABLE ENERGY INSTALLATION
160	MASLEKAR SHRADDHA SHRIRAM	Hitesh Dutt Mathur	INTELLIGENT FREQUENCY CONTROL IN MICROGRID USING FUZZY LOGIC CONTROLLER AND ASSOCIATED V2G ECONOMIC ANALYSIS
161	MAYANK AGARWAL	Shuvendu N Patel	DYNAMIC ANALYSIS OF FUNCTIONALLY GRADED PLATES.
162	MAYANK GUPTA		AN ASSESSMENT OF THE EFFECTIVENESS OF ELECTRICAL VEHICLES IN REDUCING THE CO2 EMISSION LEVEL IN INDIA.
163	Megha Saini		EXFOLIATION OF MO-CHALCOGENIDES NANOSEEDS FOR HYDROGEN EVOLUTION REACTION
164	MEHTA ADITYA MUKESH	Prateek Kala	DEVELOPING FDM BASED 3D PRINTER HEAD FOR METAL ALLOY.
165	MEHTA MANAN RAKESH	Keyur Joshi	DEVELOPMENT OF AN INCOMPRESSIBLE FLOW SOLVER FOR STRUCTURED AND STAGGERED GRIDS FOR GRAPHICAL PROCESSING UNIT (GPU) USING CUDA.
166	MIHIR SIROHI	Lavika Goel	DESIGN OF COMPUTATIONAL INTELLIGENCE BASED QUESTION ANSWERING SYSTEM
167	MOHAMMED ADNAAN SHAFIQUE	Rajesh Kumar	BENDING ANALYSIS OF REINFORCED MULTI-WALLED CARBON NANOTUBES STRUCTURAL PLATES.
168	MOHIT GARG	Anu Gupta	DESIGN, ANALYSIS AND IMPLEMENTATION OF NEUROMORPHIC SIGNALS
169	Monika Saini	Sushila Shekhawat	TO MAKE A COMPARATIVE STUDY OF FRESCO AND OTHER FORM OF PAINTINGS OF SHEKHAWATI REGION.
170	MORE SANIKET VIJAYKUMAR	Lavika Goel	SOIL ANALYSIS FROM SATELLITE IMAGE DATA

Design Project			
S. No	Name of Student	Faculty Name	Project Title
171	MORLAWAR ANAND SHASHIKANT	G Muthukumar	MODELLING OF EARTHQUAKE LOAD RESISTANT BUILDING USING ETABS SOFTWARE.
172	MRUDULA NAGESWARAN	K P Venkatesh	PHOTOTHERMAL LESIONS IN SOFT TISSUE INDUCED BY OPTICAL FIBER MICROHEATERS
173	NABARUN GOGOI	Sandhya Marathe	INVESTIGATING THE ROLE OF MALE AND FEMALE IN RAISING THE NEXT GENERATION
174	NAMAN SEHGAL	Chandra Shekhar	DESIGN OF A RISC ARCHITECTURE PROCESSOR CONSUMING LOW POWER
175	Namrata Mohanty	Shan Balasubramaniam	FORMAL METHODS FOR SDN - DESIGN AND IMPLEMENTATION OF AN SDN VIRTUAL MACHINE
176	NANDANWAR KUNAL GAJANAN	Hari Om Bansal	SELF BALANCING OF A BIKE USING GYROSCOPE AND DATA DRIVEN PID CONTROLLER
177	NANDANWAR KUNAL GAJANAN	P Srinivasan	COMPARATIVE ANALYSIS OF AIR-COOLED & WATER COOLED CONDENSER FOR A SPECIFIC CASE STUDY
178	NAREN	Vinay Chamola	PHYSICALLY UNCLONABLE FUNCTION IMPLEMENTATION
179	NEERAJ VILAS SURAWAR	Chandra Shekhar	DESIGNING A RISC CORE-SUBSET
180	Neha Saini	Sushila Shekhawat	FOLK CULTURE OF RAJASTHAN: A STUDY OF MURAL STORY BOARDS BY SPECIFIC ETHNIC COMMUNITY BHOPA.
181	NIKHIL RANJAN	Shibasish Chowdhury	MACHINE LEARNING BASED MIRNA-MRNA BINDING PREDICTION
182	NIRABHI SHARMA	TBA (Mgts)	COMPANY VALUATION ANALYSIS IN EQUITY RESEARCH REPORT
183	NISHAD SAHU	Devesh Samaiya	DESIGN OF DISPLAY CONTROLLER FOR LED MATRIX PANELS
184	NISHANT RATHORE	Sangeeta Sharma	ROLE OF ADVERTISING IN SHAPING CHILDRENS CAREER.
185	NITANT ATUL UPASANI	G Muthukumar	PREDICTION OF THE STRENGTH PROPERTIES OF FIBER REINFORCED CONCRETE SUBJECTED TO BOTH CONTROL AND ELEVATED TEMPERATURE CONDITIONS USING AI TECHNIQUES.
186	NITHYA SUNDARAMOORTHY	Suresh Gupta	APPLY THE KNOWLEDGE OF CHEMICAL ENGINEERING AND MACHINE LEARNING TO CARRY OUT THE DATA ANALYSIS OF INDUSTRIAL DATA
187	PADHYE MOHIT YOGESH	Anu Gupta	DESIGN AND IMPLEMENTATION OF CIRCUITS FOR 4G COMMUNICATION APPLICATIONS
188	PADHYE MOHIT YOGESH	Chandra Shekhar	DESIGN OF A REDUCED INSTRUCTION SET COMPUTER(RISC) ARCHITECTURE PROCESSOR
189	PALAK	Priya C Sande	MODELLING AND SIMULATION OF FCC UNIT USING PIV PARAMETRIC WITH VELOCITY VECTORS
190	PALLAVI TRIVEDI	Suresh Gupta	MODELLING AND SIMULATION OF SEQUENTIAL BATCH BIOREACTOR
191	PARIDHI GUPTA	Priya C Sande	MODELING OF FCC BEDS USING CFD
192	PARIKH MEET DHAVAL	Nitin Chaturvedi	FAULT DETECTION IN POWER SUPPLY LINES USING CONVOLUTIONAL NEURAL NETWORKS
193	PARITOSH VERMA	Shan Balasubramaniam	STREAMING VERIFICATION AND INTERACTIVE PROOFS
194	PARTH DHINGRA	Srikanta Routroy	DEVELOPMENT OF TISM FOR SUPPLIER DEVELOPMENT IMPLEMENTATION
195	PARTH SETHI	J L Raheja	EARLY DETECTION OF ORAL CANCER USING MACHINE LEARNING
196	PATRA PRITAM ASIT	S Gurunarayanan	PROCESSOR DESIGN INCORPORATING MULTI-CORE DESIGN AND USING SHARED MEMORY INTER-CORE COMMUNICATION METHODS
197	PAVNI JAISWAL	Hari Om Bansal	POWER OPTIMIZATION IN HEVS USING INTELLIGENT TECHNIQUES
198	PENTA SRUJAN	Navneet Gupta	3D NEGF QUANTUM TRANSPORT SIMULATION FOR MODELING BALLISTIC TRANSPORT IN NANO FINFETS

Design Project			
S. No	Name of Student	Faculty Name	Project Title
199	PIYALI MANNA	K K Gupta	FEATURE EXTRACTION FROM EEG SIGNALS FOR BCI BASED DRONES
200	PIYUSH RAI	K P Venkatesh	DESIGN OF MICROGRIPPERS FOR HOLDING BIOLOGICAL CELLS.
201	PRABHAT GARG	Srinivas Appari	DETAILED KINETIC MODELING OF METHANOL STEAM REFORMING ON NICKEL
202	PRANAV MAGADI	Banasri Roy	STUDY OF CO2 CONVERSION TO CH3OH
203	PRANGAV SINGHAL	Jahagirdar Ankush Chandrakant	ADAPTIVE IRRIGATION SYSTEM
204	PRASOON TRIVEDI	Pramod Kr Tanwar	PERFORMANCE ANALYSIS OF AN ALGORITHM FOR A SPECIFIC MACHINE ARCHITECTURE.
205	PRATAP ALOK RAJ	HK Mohanta	DEVELOPING A FUZZY LOGIC BASED CONTROLLER FOR ON-LINE CONTROL OF PH.
206	PRATEEK ARORA	Manoj Kumar	MODELLING AND ANALYSIS OF BOX GIRDER BRIDGE IN ANSYS AND DAMAGE IDENTIFICATION IN STRUCTURE.
207	PRATEEK JAIN		AN ASSESSMENT OF THE EFFECTIVENESS OF THE ELECTRICAL VEHICLES IN THE REDUCING THE CO2 EMISSION LEVEL IN INDIA.
208	PRATEEK JAIN	Hitesh Dutt Mathur	ENERGY MANAGEMENT OF MICROGRID USING V2G.
209	PRATEEK JAIN	Murali Palla	DESIGN AND ANALYSIS OF A CARBON-FIBER MONOCOQUE FOR SHELL-ECO MARATHON URBAN CONCEPT CAR
210	PRATYUSH DUBEY	Abhishek Mishra	SOLVING NP-C PROBLEMS USING SN P SYSTEM.
211	PRAYAAG R. KATTA	Keyur Joshi	DEVELOPMENT OF CFD CODE BASED ON LATTICE BOLTZMANN METHOD
212	PREET SINGH KHALSA	Arya Kumar	TO DESIGN AN AUTOMATIC FRAMEWORK TO SELECT AND MANAGE PORTFOLIO FROM THE BSE.
213	PRIYAM SHRIKANT AMBASTHA	Syamantak Majumder	DESIGN OF A FLOW APPARATUS TO CREATE VARYING FLOW PATTERNS ON AN ENDOTHELIAL CELL MONO-LAYER IN VITRO
214	PURU POURUSH	Pratik N Sheth	DESIGN MODIFICATIONS IN EXISTING BIOMASS GASIFIER TO IMPROVE TAR CRACKING USING CFD.
215	RAGHAV SHARMA	Smita Raghuvanshi	ENABLING CIRCULAR ECONOMY IN BIOREFINERIES
216	RAGHAVENDRA NIMIWAL	Pratik N Sheth	MODELLING AND SIMULATION OF THE BIOMASS COOKSTOVE
217	RAGHAVENDRA NIMIWAL	Keyur Joshi	STUDY OF HAEMODYNAMICS AND DEVELOPING A NUMERICAL FRAMEWORK FOR REALISTIC BLOOD FLOW
218	RAHUL SHIV CHAND	Sundaresan Raman	IMAGE SEGMENTATION FOR MEDICAL IMAGES.
219	RAJA SHUKLA	Ashutosh Kar	NOISE SIGNAL ANALYSIS IN AUDIO DEVICES USING "PRINCIPLE COMPONENT ANALYSIS".
220	RAJAS PANDEY	Lavika Goel	ANTICIPATORY FRAMEWORK USING HYBRIDIZATION OF PALEOBIOGEOGRAPHY AND PALEOCLIMATOLOGY WITH BBO FOR ENEMY BASE STATION PREDICTION
221	RAJAS PANDEY	Krishna Muniyoor	IMPACT OF ENERGY USE ON ECONOMIC GROWTH: A CASE OF BRICS COUNTRIES
222	RAJAT JAIN	J N Bandopadhyay	CLASSICAL VS. QUANTUM FULLY HOMOMORPHIC ENCRYPTION
223	RAJAT KHANDELWAL	Rahul Singhal	DESIGN OF INTEGRATED/TANDEM ORGANIC LED & ORGANIC SOLAR CELLS.
224	RAJAT P THAKUR	J L Raheja	DEEP LEARNING MODELS FOR MEDICAL IMAGE CLASSIFICATION
225	Rakesh Singh Shekhawat	Sushila Shekhawat	TO MAKE A COMPARATIVE STUDY OF FRESCO AND OTHER FORM OF PAINTINGS OF SHEKHAWATI REGION
226	RAM KRISHNA	Chandra Shekhar	VLSI ARCHITECTURE - CACHE CONTROLLER
227	RASAL KUMAR	Sangita Yadav	THE FINITE ELEMENT METHOD IN ELECTROMAGNETISM

Design Project			
S. No	Name of Student	Faculty Name	Project Title
228	RAUNAQ ARORA	Kuldip Singh Sangwan	DESIGN OF MICROMACHINING SETUP FOR MEMS APPLICATION
229	RAVEESH GARG	Kari Babu Ravi Teja	ASIC IMPLEMENTATION OF BLOCK MATCHING ALGORITHM FOR MOTION ESTIMATION
230	RAVINDRA ABHIJITH	Arun Kumar Jalan	ACOUSTICAL DESIGN AND ANALYSIS OF BITS AUDITORIUM
231	RITIKA SANJAY DIWAN	K P Venkatesh	INFLUENCE OF PROTEIN EXPRESSION LEVELS ON THE MECHANICAL RESPONSE OF A CELL.
232	ROHAN SAXENA	Santanu Chaudhary	DETECTING TRAFFIC VIOLATIONS FROM VIDEO STREAM OF ROADS USING COMPUTER VISION
233	ROHIT LODHA	Pramod Kr Tanwar	OPTIMIZED REAL-TIME TRAINING OF DATA FOR OBJECT TRACKING
234	ROHIT VENKATESH	Hitesh Dutt Mathur	INTELLIGENT FREQUENCY CONTROL FOR MICROGRID USING NEURAL NETWORK CONTROL AND ITS ASSOCIATED V2G ECONOMIC ANALYSIS
235	ROHITKUMAR ARASANIPALAI	Anu Gupta	HARDWARE IMPLEMENTATION OF ARTIFICIAL NEURAL NETWORK
236	ROHITKUMAR ARASANIPALAI	Sainath Bitragunta	A STUDY OF ACTIVE NOISE CANCELLATION USING LEAST-MEAN-SQUARES ADAPTIVE FILTER
237	RUNAL SHRIVASTAVA	Shamsher B Singh	BIO-NEUTRALIZATION OF ALKALINE RED MUD AND ITS APPLICATION AS A CONSTRUCTION MATERIAL
238	S VENKATESH	Nitin Chaturvedi	ANALYSIS AND DESIGN OF NON-VOLATILE MEMORY FOR NEUROMORPHIC APPLICATIONS
239	SAAKSHI KHANDELWAL	TBA (Mgts)	COMPANY VALUATION ANALYSIS IN EQUITY RESEARCH REPORT
240	SAHIL DESAI	Keyur Joshi	STUDY OF HAEMODYNAMICS AND DEVELOPING A NUMERICAL FRAMEWORK FOR REALISTIC BLOOD FLOW
241	Saikrishna Kondameedi	Amit Dua	STOCHASTIC DEMAND RESPONSE MANAGEMENT OF SMART-GRID USING LATTICE BASED CRYPTOGRAPHY
242	SAKSHAM AGARWAL	M S Dasgupta	DESIGN OF NEXT GEN AUTOMOTIVE HMI(ERGONOMICS)
243	SALONI SINHA	Prateek Kala	DEVELOPMENT OF CUSTOMISED TIG WELDING CONTROLLER TO ADAPT TO 3-D PRINTING APPLICATIONS
244	SAMEER JAIN	Navneet Goyal	VIDEO DESCRIPTION GENERATION USING DEEP NEURAL NETWORKS
245	SAMEER KUMAR SINGH	Leela Rani	UNDERSTANDING DIGITAL MARKETING ASPECTS OF A BLOG.
246	SAMIP JASANI	TBA (Cs/Is)	BIO-GEOGRAPHY BASED OPTIMIZATION WITH EXTINCTION AND EVOLUTION FOR FACIAL RECOGNITION
247	SAMIRAN	Bijoy Kumar Raut	TO PROVIDE A METHOD TO AUTOMATE THE MOVEMENT OF THE MANUALLY CONTROLLED 4-MEMBERED BOOM USED TO PUMP CONCRETE
248	SAMIRAN	Tufan Chandra Bera	OPTIMISATION OF THIN WALL MACHINING USING ARTIFICIAL NEURAL NETWORKS
249	SANAA AGARWAL	Shyam Sundar Yadav	NUMERICAL SIMULATION OF MAGNETOHYDRODYNAMIC FLOWS IN ASTROPHYSICAL PLASMAS.
250	SANKARA PRASAD R	Chandra Shekhar	VLSI ARCHITECTURE FOR HIGH PERFORMANCE REALTIME APPLICATIONS
251	SARANSH ARORA	Keyur Joshi	DEVELOPING CAPABILITY OF MODELING VISCOELASTIC MATERIALS.
252	SAROJ MAHERIA	Gajendra S Chauhan	ANALYSING CURRENT TRENDS IN INTERNET MARKETING
253	SARTHAK SRIVASTAVA	Shibasish Chowdhury	MACHINE LEARNING FOR BIO-MOLECULAR RECOGNITION
254	SARVESH SRINIVASAN	Abhishek Mishra	DESIGNING ALGORITHMS USING QUANTUM RANDOM WALKS (QUANTUM COMPUTATION)
255	SATYA PRIYA SINGH DEO	Shibasish Chowdhury	IMPLEMENTATION OF MACHINE LEARNING ALGORITHMS IN BIOLOGICAL SYSTEMS

Design Project			
S. No	Name of Student	Faculty Name	Project Title
256	SATYAM BHASKAR	Hari Om Bansal	SELF BALANCING OF A BIKE USING GYROSCOPE AND DATA DRIVEN PID CONTROLLER
257	SATYAM KUMAR SINGH	HK Mohanta	DEVELOPING A FUZZY LOGIC BASED CONTROLLER FOR ONLINE CONTROL OF PH.
258	SAURABH GUPTA	Arun Kumar Vaish	CRITICAL ANALYTICS OF RISK OF MICROFINANCE BORROWER.
259	SHASHANK BHARDWAJ	Pratik N Sheth	MODELLING AND SIMULATION OF MSW TREATMENT TECHONLOGIES
260	SHIVAM KHETAN	Arya Kumar	DETERMINANTS OF ENTREPRENEURIAL INTENT AMONG BITS PILANI STUDENTS
261	SHIVAM KUMAR	Banasri Roy	CONVERSION OF CO2 TO USEFUL PRODUCTS ON NANOCATALYST AND KINETIC ANALYSIS OF THE CATALYTIC PERFORMANCE
262	SHIVAM MAHESHWARI	K P Venkatesh	DESIGN AND ANALYSIS OF NATURAL GYROSCOPE
263	SHIVAM VEDANT	Suresh Gupta	MODELLING AND SIMULATION OF SEQUENTIAL BATCH REACTOR
264	SHIVANI MITTAL	Surekha Bhanot	GENERALIZED FRAMEWORK FOR REINFORCEMENT LEARNING IN ROBOTICS.
265	SHIVANI SINGH	Kavindra Kandpal	DESIGN OF OSCILLATOR IN UMC 90 NM CMOS TECHNOLOGY
266	SHIVANKIT GAIND	Sumeet Saurav	DROWSINESS DETECTION
267	SHOMBIT DHAR	M S Dasgupta	DEVELOPMENT OF VALUE STREAM MAPPING FOR E-WASTE MANAGEMENT IN INDIA
268	SHRIKANT SUSHIL SHARDA	Kamlesh Tiwari	USER GENERATED CONTENT VALIDATOR
269	SIDDHARTH SHANKAR TRIPATHI	Vinay Chamola	SMART SENSING WITH INTERNET OF THINGS (IOT)
270	SIDDHARTH SINGH	Keyur Joshi	DEVELOPMENT OF TURBULENCE MODEL AND VALIDATION WITH BACKWARD FACING STEP BENCHMARK.
271	SIDDHARTHA APOORVA	Hitesh Dutt Mathur	IOT BASED INTERCOMMUNICATION OF MICROGRIDS THROUGH CLOUD.
272	SISHIR SURESH MOHAMMED	P Srinivasan	RETROFITTING INDIAN POWER PLANTS(COAL-FIRED) WITH POLLUTION CONTROL MEASURES, AND STUDYING THE IMPACT ON EXTERNALITY COST
273	SOUROJIT SAHA	Kuldip Singh Sangwan	DESIGN FOR DISASSEMBLY
274	SRINIVASAN S	J N Bandopadhyay	FIRST PASSAGE OF TIME IN QUANTUM RANDOM WALK
275	SRISHTI JAIN	Pratik N Sheth	TECHNOECONOMIC FEASIBILITY STUDY TO GENERATE NEW REVENUE STREAMS FROM SYN GAS
276	SUDHIR GUPTA	Pratik N Sheth	MODELLING AND SIMULATION OF FLUDIZED BED GASIFIER
277	SUGAM SINGLA	Satyendra Kr Sharma	BLOCKCHAIN IN SUPPLY CHAIN MANAGEMENT
278	SUHAIL KHAN	HK Mohanta	DEVELOPMENT OF MODIFIED KENNARD-STONE ALGORITHM FOR DATA MINING.
279	SUMIT GODARA	Ashutosh Kar	DESIGN AND ANALYSIS OF FEEDBACK ACTIVE NOISE CONTROL USING ADAPTIVE FILTERS
280	SUPRIT BUCHKE	Hari Om Bansal	IMPROVEMENT IN THE PERFORMANCE OF SRM/PMSM FOR HEV APPLICATIONS.
281	SURBHIT JOHRI	Pankaj Kumar Sharma	DEVELOPING INTERESTING METHODS FOR BIOLOGY TEACHING
282	SURPANI HARI VENKATA KRISHNA	Amit Dua	SECURITY IN CLOUD COMPUTING
283	TANIYA	Gajendra S Chauhan	APPLICATION OF NLP (NATURAL LANGUAGE PROCESSING)IN DIGITAL MARKETING
284	TARU KAPOOR	Hitesh Dutt Mathur	CONTROLLER DESIGN TO MITIGATE THE INTERMITTENT NATURE OF POWER SOURCES IN A MICROGRID
285	TEJASWI B H	Keyur Joshi	DEVELOPMENT OF AN IN-COMPRESSIBLE FLOW SOLVER FOR STRUCTURED AND STAGGERED GRIDS FOR GRAPHICAL PROCESSING UNIT

Design Project			
S. No	Name of Student	Faculty Name	Project Title
			(GPU) USING CUDA.
286	TUSHAR ARORA	NV Muralidhar Rao	EXPLORATORY STUDY ON ARTIFICIAL INTELLIGENCE AND ECONOMIC GROWTH
287	TUSHAR GOYAL	Chandra Shekhar	DESIGN AND DEVELOPMENT OF A SATELLITE ORBIT SIMULATOR FOR TESTING AND VALIDATION OF THE SEQUENCE OF OPERATIONS ONBOARD A NANOSATELLITE.
288	TUSHAR KAUSHIK	Bibhas Ranjan Sarkar	DESIGN OF SOLAR PUMPED LASER AND ITS APPLICATION IN DYE DEGRADATION
289	TUSHAR MEHTANI	Bibhas Ranjan Sarkar	DESIGN FOR SOLAR PUMPED LASER AND STUDY OF APPLICATION FOR CLEAVAGE OF CHEMICAL BONDS.
290	TUSHAR MEHTANI	Amit Dua	REALISING EFFECTIVE UTILIZATION OF VEHICULAR NETWORK USING SOFTWARE DEFINED NETWORKS
291	UJJWAL ANAND	Surekha Bhanot	APPLICATION OF DEEP LEARNING IN SENTIMENT ANALYSIS IN NATURAL LANGUAGE PROCESSING
292	UTKARSH AGARWAL	Chandra Shekhar	MULTI-CORE ARCHITECTURES- VLSI ARCHITECTURE FOR HIGH-PERFORMANCE REAL-TIME APPLICATIONS.
293	UTKARSH AGRAWAL	Pramod Kr Tanwar	OPTIMIZED REAL-TIME TRAINING OF DATA FOR OBJECT TRACKING
294	UTKARSH VASHISHTHA	Navneet Goyal	APPLICATIONS OF NOWCASTING IN PREDICTING NATURAL DISASTERS.
295	VADERIA SHYAMAL LALITBHAI	Kamlesh Tiwari	SPEECH RECOGNITION AND CLASSIFICATION FOR HINDI DIALECTS
296	VAIBHAV JAIN PRITHVIRAJ	Srikanta Routroy	VALUE STREAM MAPPING OF MANUFACTURING FIRM
297	VARUN GORADIA	Kari Babu Ravi Teja	AUTOMATION OF ADC TESTING
298	VIBHOR MITTAL	Vinay Chamola	DEVELOPING REAL TIME APPLICATIONS FOR INTERNET OF THINGS.
299	VIDISHA VIJAY	Priya C Sande	MODELLING OF FLUIDIZED BED USING DISCRETE PHASE MODEL(DPM)
300	VIDISHA VIJAY	Syamantak Majumder	DESIGNING BLOOD FLOW PATTERN BASED ON THE DIFFERENCES IN BIFURCATION ANGLE OF BLOOD VESSELS TO STUDY ITS EFFECT ON CARDIOVASCULAR FUNCTION
301	VIDUSHI CHITRANSHI	Priya C Sande	MODELLING AND SIMULATION OF FLUIDIZED BED USING CFD AND PIV
302	VIGNESH HEGDE	Shivi Agarwal	FUZZY GENETIC ALGORITHMS
303	VIKRAM NITIN	Navneet Goyal	GENERATING DESCRIPTIONS FOR VIDEO
304	VISHRUT SHAH	Hitesh Dutt Mathur	CONTROLLER DESIGN TO MITIGATE THE INTERMITTENT NATURE OF POWER SOURCES IN A MICROGRID.
305	VISHWESH RAVI SHRIMALI	P Srinivasan	CONVERSION OF EULERIAN APPROACH TO LAGRANGIAN APPROACH IN OPENFOAM.
306	VIVEK SINGHVI	Pramod Kr Tanwar	OPTIMIZED REAL-TIME TRAINING OF DATA FOR OBJECT TRACKING
307	YASH BANSAL	Surekha Bhanot	STUDY ON DYNAMIC ROBOT PATH PLANNING.
308	YASHASHVI TIWARI	Manoj Soni	DESIGN AND FABRICATION OF ENGINE TESTING RIG.

Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
1	AADI JAIN	Avinash Gautam	USING LASER SCANNERS FOR ENVIRONMENT MAPPING AND LOCALISATION.
2	AAKASH BAJAJ	K Hari Babu	WAYPOINT ENFORCEMENT IN A VLAN USING SINGLE SDN CONTROLLER
3	AAKASH NILESH SHAH	Anu Gupta	DESIGN OF OPERATIONAL TRANSCONDUCTANCE AMPLIFIER TOLERANT TO PVT VARIATIONS
4	AAKRITI AGRAWAL	S Mohan	REAL-TIME NEIGHBOR REFERENCED MULTI-ROBOT LOCALIZATION

Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
5	ABHAY AGARWAL	NV Muralidhar Rao	US TRADE WARS WITH EMERGING COUNTRIES IN THE 21ST CENTURY: AN EXPLORATORY STUDY
6	ABHAY KOUSHIK	Sundaresan Raman	PROJECT BRAIN - SEGMENTATION AND ANALYSIS OF CT BRAIN
7	ABHIJEET PANDEY	R. Srinivas	EVALUATING THE IMPACT OF GROUNDWATER QUALITY ON VARIOUS BENEFICIAL USAGES IN PILANI.
8	ABHINAV GARG	Vinay Chamola	RESEARCH FRONTIERS IN SOLAR POWERED CELLULAR NETWORKS
9	ABHINAV GUPTA	Dhiraj Sangwan	SEMANTIC SEGMENTATION USING DEEP LEARNING APPROACH
10	ABHISHEK PAREKH	Avinash Gautam	MULTI-ROBOT COVERAGE, PATH PLANNING ALGORITHM FOR UNKNOWN TERRAIN.
11	ABHISHEK AGGARWAL	Ashish Patel	DESIGN AND IMPLEMENTATION OF DIGITAL CONTROL OF SRM / INDUCTION MOTOR USING MICROCONTROLLER/FPGA
12	ABHISHEK VAIBHAV JOSHI	Navneet Goyal	DESIGNING EFFICIENT STREAMING ALGORITHMS
13	ABHISHEK VAIBHAV JOSHI	Navneet Goyal	STREAMING ALGORITHMS FOR SOCIAL MEDIA ANALYTICS
14	ACHAL AGARWAL	Rakhee	ADAPTIVE GUARD CHANNEL RESERVATION SCHEME FOR CELLULAR NETWORKS
15	ADEESH BHARGAVA	Sainath Bitragunta	APPLICATION OF STOCHASTIC GEOMETRY IN COMMUNICATION SYSTEMS AND NETWORK MODELS.
16	ADIT AGGARWAL	Ashish Patel	HARDWARE PROGRAMMING FOR INTERNET OF THINGS.
17	ADITYA GARG	A. S. Mandal	INTERACTIVE APPLICATION FOR FIRST HAND MEDICAL ASSISTANCE
18	ADITYA GOYAL	Ramkinkar Roy	EXAMINING THE QUALITATIVE TREND OF ELECTRON TRANSFER RATE WITH RESPECT TO REORGANIZATION ENERGY AND REACTION GIBBS ENERGY
19	ADITYA JAIN	G Muthukumar	EXPERIMENTAL INVESTIGATION OF MECHANICAL PROPERTIES OF BASALT FIBER REINFORCED HIGH STRENGTH CONCRETE AT ELEVATED TEMPERATURE
20	ADITYA MUKHERJEE	Sumeet Saurav	EXPLORATION OF DEEP LEARNING ARCHITECTURES FOR FACIAL EXPRESSION RECOGNITION
21	ADITYA POLA	Manjuladevi V	NANOMATERIALS DOPED IN LIQUID CRYSTALS
22	ADITYA RAJ AGARWAL	Vishal Gupta	PREVENTION AND MITIGATION OF DNS BASED DDOS ATTACKS
23	AESHVARYA MITTAL	Syamantak Majumder	TO STUDY THE EXTENT OF THE LEARNING TRANSFERRED FROM A PARENT TO OFFSPRING USING RATS.
24	AISHIT JAIN	Pratik N Sheth	DESIGN MODIFICATIONS IN THE EXISTING BIOMASS GASIFIER TO IMPROVE TAR CRACKING USING CFD
25	AJAY SHRINIVAS.M	Anupam Singhal	APPLICATIONS OF BIOCONCRETE: A STUDY OF ITS STRENGTH & PROPERTIES.
26	AKANKSHA DARA	Anil Rai	MUSIC AND YOG
27	AKASH GOYAL	Shamsher B Singh	ANALYSIS AND DESIGN OF FRP REINFORCED STRUCTURE
28	AKASH GUPTA	Mukesh Kr Rohil	PERFORMANCE COMPARISON OF SOME COMPUTER VISION FUNCTIONS AND THEIR WIN32 API USING MICROSOFT VISUAL STUDIO AND C++.
29	AKASH SONTH	Harshavardhan S	FLUTTER SHUTTER BASED MOTION DEBLURRING IN VIDEO STREAMS
30	AKHIL KHANDELWAL	Chandra Shekhar	VLSI ARCHITECTURE FOR HIGH PERFORMANCE REAL-TIME APPLICATIONS
31	AKSHAY KRISHNA S	Dhiraj Sangwan	FOOD QUALITY MONITORING AND INFERENCE MAKING THROUGH IMAGE PROCESSING AND MACHINE LEARNING TECHNIQUES
32	AKSHIT ANEJA	Syamantak Majumder	TO STUDY THE EXTENT OF THE LEARNING TRANSFERRED FROM A PARENT TO OFFSPRING USING RATS.
33	AKSHIT GOEL	Chandra Shekhar	SILICON FET PLATFORM FOR



Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
			CHEMICAL/BIOCHEMICAL SENSING APPLICATION
34	AKSHIT KUMAR	Ajay Kumar Sah	LANTHANIDE COMPLEX CATALYSED MICHEAL AND DIELS-ALDER REACTIONS
35	AMEYA MAHESH DHAMANASKAR	Ashish Patel	HARDWARE REALISATION OF QUANTUM NEURAL NETWORKS FOR SIGNATURE VERIFICATION
36	AMIT AGRAWAL	NV Muralidhar Rao	CORPORATE CREDIT RISK ASSESSMENT USING MACHINE LEARNING AND STATISTICAL METHODS: A COMPARATIVE STUDY
37	AMIT BANSAL	Som Sukla Maiti	CLASSIFICATION OF EEG DATA USING ML TECHNIQUES
38	AMIT SONI	R. Srinivas	STUDYING THE IMPACT OF CHANGES IN BED CHARACTERISTICS ON THE HYDROLOGICAL CHARACTERISTICS OF A CHANNEL
39	AMOGH SHARMA	Poonam Goyal	DESIGN OF EFFICIENT STRATEGIES FOR DATA DISTRIBUTION IN HIGH-PERFORMANCE DATA MINING
40	AMOGH SHARMA	Poonam Goyal	EFFICIENT DATA DISTRIBUTION FOR HIGH-PERFORMANCE DATA MINING
41	AMRITANSHU JAIN	Dhiraj Sangwan	VISUAL CONTENT BASED ANALYSIS USING QUERIES
42	ANANNYA SIRCAR	Anil Gaikwad	TO INVESTIGATE THE EFFECT OF ACUTE KIDNEY INJURY ON THE LIVER IN A TYPE-1 DIABETIC CONDITION
43	ANANT KUMAR TRIPATHI	Indresh Kumar	ORGANOCATALYTIC APPROACH TOWARDS [2,2,2]-AZABICYCLO MOLECULE
44	ANANT RUNGTA	Anu Gupta	A NOVEL CMOS OPERATIONAL TRANS-CONDUCTANCE AMPLIFIER BASED ON A MOBILITY COMPENSATION TECHNIQUE.
45	ANANYA DHAKA	Mukesh Kr Rohil	IMPLEMENTATION OF AUTO CORRECTION TECHNIQUES FOR BUSINESS ANALYSIS
46	ANGAD LAMBA	NV Muralidhar Rao	A MACHINE LEARNING APPLICATION TO CLASSIFY A LOAN AS SAFE OR RISKY.
47	ANIMESH JAIN	Uma S Dubey	LACTOFERRIN COMPUTATION
48	ANIRUDH KRISHNA L	Kamlesh Tiwari	COGNITIVE COMPUTING OVER NETWORK TRAFFIC
49	ANIRUDHA.K	Atanendu Sekhar Mandal	CLASSIFICATION OF EEG DATA USING DEEP LEARNING, FOR DRONE APPLICATIONS
50	ANIRUDHA.K	Rajan Pandey	DEVELOPING A PREDICTIVE MODEL TO MAXIMIZE PORTFOLIO GAIN BASED ON COMPREHENSIVE STUDY OF CURRENT MARKET.
51	ANJAN DAS	Pramod Kr Tanwar	PERFORMANCE EVALUATION OF TARGET TRACKING ALGORITHMS.
52	ANKIT SULTANA	Shan Balasubramaniam	PARALLELIZATION OF GRAPH CLUSTERING ALGORITHMS
53	ANMOL BHATIA	Sumanta Pasari	APPLICATION OF ARTIFICIAL NEURAL NETWORKS FOR EARTHQUAKE PREDICTION
54	ANMOL NAUGARIA	Dhiraj Sangwan	BREAST CANCER IDENTIFICATION USING DEEP LEARNING APPROACH.
55	ANMOL SINGHAL	Dhiraj Sangwan	AUTOMATIC IMAGE CAPTION GENERATION
56	ANSHU AGRAWAL	Sharad Srivastava	THE EFFECTS OF PRE-CYCLIC STRESS ON FRACTURE PROPERTIES & FATIGUE CRACK PROPAGATION LIFE OF ALUMINIUM ALLOY
57	ANSHUL JAIN	JI Raheja	DRUG ABUSE ENSEMBLE CLASSIFIER
58	ANUBHAV GARG	Sumeet Saurav	EXPLORATION OF DEEP LEARNING ARCHITECTURES FOR FER.
59	ANUBHAV SACHAN	Anantha Krishna Chintanpalli	IMPLEMENTATION OF DSP ALGORITHMS ON TMS320C6748 KIT
60	ANURUP DOSHI	Nitin Chaturvedi	STUDY AND DESIGN OF NEUROMORPHIC CIRCUITS
61	ANVITA SRINIVAS	Poonam Goyal	IMAGE CAPTIONING
62	APOORV LAL	Smita Raghuvanshi	APPLICATION OF CLO2 IN CONTROLLING BIO-GROWTH OVER HEAT EXCHANGERS AND DEMONSTRATING EFFECTIVENESS OF CLO2 OVER CL2.
63	APOORV RAJ SINGH	NV Muralidhar Rao	CORPORATE CREDIT RISK ASSESSMENT USING MACHINE LEARNING AND STATISTICAL METHODS: A COMPARATIVE STUDY
64	APOORVA AGRAWAL	Som Sukla Maiti	CLASSIFICATION OF EEG DATA USING ML TECHNIQUES.
65	APURVA MITTAL	Lavika Goel	SOIL ANALYSIS USING SATELLITE IMAGES

Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
66	ARCHIT GARG	Amit Jain	EXPERIMENTAL STUDIES ON BIO-DEGRADATION OF THE WASTE AUTOMOBILE ENGINE OIL.
67	ARJUN KUMAR CHOUDHARY	Rajesh Kumar	LOW RANK TENSOR APPROXIMATION FOR DIMENSIONALITY REDUCTION
68	ARKA TALUKDAR	Shan Balasubramaniam	PARALLELIZATION OF IRREGULAR ALGORITHMS
69	ARKID KALYAN BERA	Anu Gupta	EXPLORATION OF DYNAMIC VOLTAGE AND FREQUENCY SCALING TECHNIQUE FOR LOW POWER CONSUMPTION VLSI CIRCUITS
70	ARNAV SETHI	Amit Jain	STUDY ON CULTURE MEDIA OPTIMIZATION FOR MAXIMIZING BIOSURFACTANT PRODUCTION AND CELL GROWTH WITH WASTE ENGINE OILS AS SUBSTRATE.
71	ARPITA BHADRESH SHAH	HK Mohanta	IMPLEMENTATION OF ADVANCED CONTROLLERS IN PCT40 USING LABVIEW
72	ARUN D PRABHU	Atanendu Sekhar Mandal	PAIN RECOGNITION USING DEEP LEARNING
73	ARUN D PRABHU	A. S. Mandal	PAIN RECOGNITION FROM FACIAL EXPRESSIONS
74	ASHUTOSH GOEL	Anil Saini	BLOCK CHAIN BASED BIOMETRIC ACCESS CONTROL
75	ASHWIN GUPTA	Sharad Srivastava	EFFECT OF NON-NEWTONIAN PROPERTIES OF BLOOD FLOW ON MAGNETIC NANOPARTICLES TARGETED DRUG DELIVERY.
76	ASHWIN TAYADE	Yashvardhan Sharma	QUESTION ANSWERING SYSTEM USING MEMORY NETWORKS
77	AVEEPSHITO MITRA	Kuldeep Kumar	AUTOMATIC REMOVAL OF DEAD CODE
78	AYAN GUPTA	Dhiraj Sangwan	OBJECT DETECTION USING DEEP LEARNING
79	B MANISH REDDY	Santosh Kumar	REAL-TIME ONLINE PARAMETERS MONITORING USING ANDROID APPLICATIONS
80	BALANI JAIKUMAR RAJKUMAR	Amit Dua	REALISING EFFECTIVE UTILIZATION OF VEHICULAR NETWORK USING SOFTWARE-DEFINED NETWORKING.
81	BALU ANSHUMALA	Shibasish Chowdhury	APPLICATION OF NEURAL NETWORKS TO PREDICTION IN BIOLOGICAL SYSTEMS.
82	BALU ANSHUMALA	Abhijit R Asati	SEGMENTATION PROCEDURE TO DELINEATE ORGANS USING 3D MEDICAL SCANS USING SEVERAL ALGORITHMS AND THEIR COMPARISON.
83	BARTANWALA MUSTANSIR AZIZ	NV Muralidhar Rao	CORPORATE CREDIT RISK ASSESSMENT USING MACHINE LEARNING AND STATISTICAL METHODS: A COMPARATIVE STUDY
84	BHAGAVATULA SRI SOURYA SAI	Murali M Pandey	DEVELOPMENT OF LAYER BY LAYER(LBL) ASSEMBLED FILM
85	BHAGYA LAKSHMI	Dalip Kumar	SYNTHESIS OF ARYLACRIDONES BY USING DIARYLIODONIUM SALTS IN ORGANIC TRANSFORMATION
86	BHARATH R NAIR	Bijoy Kumar Raut	BEHAVIOR BASED PATH PLANNING FOR MOBILE ROBOT
87	BHAVANAM SRAVAN KUMAR REDDY	Sumeet Saurav	HUMAN FALL DETECTION
88	BILWASIVA BASU MALLICK	Arnab Hazra	STUDY ON GRAPHENE FIELD EFFECT TRANSISTORS FOR GAS SENSING APPLICATIONS.
89	CHAITANYA CHAUHAN	K K Gupta	LORA BASED COMMUNICATION FOR AIR QUALITY MONITORING
90	CHHAYANK KUMAR	Sumeet Saurav	EXPLORATION OF DEEP LEARNING ARCHITECTURES FOR FACIAL EXPRESSION RECOGNITION(FER).
91	CHINMAY SANJAY DESHMUKH	Poonam Goyal	PARALLEL IMPLEMENTATION OF DE BRUIJN GRAPHS.
92	Chitra	NV Muralidhar Rao	EMPIRICAL ANALYSIS OF NPAS IN INDIA
93	Choudhary Twinkle Jayant	Kamlesh Tiwari	VISUAL TRACKING THROUGH WEBCAM
94	DABHADKAR KAIVALYA MADAN	Sainath Bitragunta	APPLICATION OF STOCHASTIC GEOMETRY TO WIRELESS COMMUNICATION SYSTEMS
95	DASWANI ASHWIN LALIT	Dhiraj Sangwan	OBJECT DETECTION USING DEEP LEARNING
96	DEBOLINA CHAKRABARTY	Pratik N Sheth	DESIGN MODIFICATIONS IN EXISTING BIOMASS GASIFIER TO IMPROVE TAR CRACKING
97	DEBSHANKAR GHOSH	Banasri Roy	BIOCOMPATIBILITY AND SURFACE CHARACTERIZATION OF TITANIUM DIOXIDE BASED COMPOSITES FOR IMPLANT PURPOSES.
98	DEEPAK GUNEJA	Poonam Goyal	PARALLELIZATION OF K-MEDIODS CLUSTERING ALGORITHMS

Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
99	DEEPAK GUNEJA	Poonam Goyal	PARALLELIZATION OF K-MEDIODS CLUSTERING ALGORITHMS
100	DESHMUKH DEEPANKAR YESHWANT		HIGH ISOLATION BASED RF MEMS SPST AND SPDT SWITCHES FOR WIRELESS COMMUNICATION.
101	DESHMUKH MIHIR SANJAY	Ashish Patel	HARDWARE PROGRAMMING FOR INTERNET OF THINGS.
102	DEVANSH GHATAK	Dhiraj Sangwan	VISUAL CONTENT BASED ANALYSIS USING QUERIES.
103	DHANANJAY MANTRI	Navneet Goyal	DESIGN OF EFFICIENT DATA STRUCTURES FOR CLASSIFICATION OF TEXT DATA
104	DHANANJAY MANTRI	Poonam Goyal	DEVELOPMENT OF DATA STRUCTURES FOR ANYTIME MINING OF DATA STREAMS
105	DHANYA MAHALAKSHMI M	Paritosh Shukla	EXTRACTION AND CHARACTERIZATION OF SEMI-SYNTHETIC DERIVATIVES OF THE ACTIVE PHARMACEUTICAL INGREDIENT OF PIPER BETLE.
106	DHRUV AGARWAL	Paritosh Shukla	SYNTHESIS, CHARACTERIZATION AND PURIFICATION OF PYRANOPYRAZOLES (PPZ) HETEROCYCLIC MOLECULE
107	DIVAKAR VERMA	Anil Rai	MUSIC TECHNOLOGY
108	DIVANSHU GUPTA	Hitesh Dutt Mathur	DEVELOPMENT OF AN IOT APPLICATION FOR A MICROGRID SETUP.
109	DIVYANSHU GOYAL	Bhupendra K Sharma	EXAMINATION OF BLOOD FLOW THROUGH MULTIPLE STENOSED ARTERIES WITH VARIABLE VISCOSITY.
110	EKMUN SINGH GULATI		STUDY OF RESONATORS AND FILTERS USING RF MEMS TECHNOLOGY
111	GANDHAM LOKESH	S.A. Akbar	LEAKAGE DETECTION AND PREDICTION IN SMART WATER GRIDS
112	GARV SACHDEVA	Dhiraj Sangwan	SEMANTIC SEGMENTATION USING DEEP LEARNING APPROACH.
113	GARV SHARMA	Avinash Gautam	MULTI-ROBOT RELATIVE LOCALIZATION
114	GAURAV BHANDARI	Vishal Saxena	BIOSENSORS FOR THE DETECTION OF PATHOGENS AND PHYSIOLOGICAL DISEASES
115	GAURAV RAJENDRA MANDLECHA	Gajanand Gupta	CASE STUDY: MULTI-FACILITY LOCATION OBJECTIVE PROBLEM
116	GAURAV VIRMANI	Yashvardhan Sharma	DESIGN OF A CHATBOT APPLICATION FOR MOOC PLATFORM
117	GHIWDONDE ROHIT RADHESHYAM	Vandana Agarwal	BRAIN COMPUTER INTERFACE AND ITS APPLICATIONS
118	GIRINATH.R	Navneet Goyal	DOMAIN SPECIFIC LANGUAGE FOR CLASSIFICATION ALGORITHMS
119	GOUTHAM ADITHYA	S Murugesan	IN SILICO DESIGN AND STUDY OF NOVEL AGENTS AGAINST TRYPANOSOMIASIS
120	GOVIND MITTAL	Amit Dua	ENERGY OPTIMIZATION IN SOFTWARE-DEFINED NETWORKS
121	GURAJAPU SRAVAN SRI HARSHA	Sai Krishna Yaddadi	WEB BASED MONITORING SYSTEM FOR RO PLANT (AUTHENTICATION AND ONLINE TREND GRAPH)
122	HARJAS SINGH BATHLA	Virendra S Shekhawat	DELAY TOLERANT NETWORKS
123	HARJAS SINGH BATHLA	Vishal Gupta	DNS BASED DDOS ATTACKS
124	HARSHIT GOYAL	Sumeet Saurav	EXPLORATION OF DEEP LEARNING ARCHITECTURE FOR FACE DETECTION
125	HARSHITA GOYAL	Poonam Goyal	DESIGN AND IMPLEMENTATION OF A PARALLEL ALGORITHM FOR DE NOVO WHOLE GENOME ASSEMBLY.
126	HARSHITA VERMA	Vishal Saxena	STRUCTURAL AND FUNCTIONAL CHARACTERISATION OF A PLASMODIUM PROTEIN.
127	HARSHITA VERMA	Vishal Saxena	IDENTIFICATION OF NOBLE DRUG TARGET AND THERAPEUTIC MECHANISM IN PLASMODIUM SPECIES.
128	HARSHVARDHAN MAHESHWARI	Som Sukla Maiti	OBJECT RECOGNITION USING DEEP LEARNING FRAMEWORK.
129	HIMANSHU TODWAL	Gajanand Gupta	CASE STUDY: MULTI-FACILITY LOCATION OBJECTIVE PROBLEM
130	HITESH SAGTANI	A. S. Mandal	INTERACTIVE ANDROID BASED APPLICATION FOR FIRST HAND MEDICAL ASSISTANCE
131	IMITESHWAR SINGH BENIPAL	Ashish Patel	HARDWARE PROGRAMMING FOR INTERNET OF THINGS

Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
132	INDLA KARTHIK VARMA	Sai Krishna Yaddadi	APPLICATION DEVELOPMENT FOR STREET LIGHT MONITORING.
133	ISHAAN AHUJA	Devesh Samaiya	DESIGN OF FLASH PROGRAMMER SHIELD FOR ARDUINO
134	JAHNAVI MRUGESH GANDHI	Dalip Kumar	SYNTHESIS OF FUNCTIONALIZED PORPHYRINS FOR THE FABRICATION OF DYE SENSITIZED SOLAR CELLS
135	JAHNAVI ROHIL	Anshuman Dalvi	STRUCTURE CONDUCTIVITY CORRELATION OF LITHIUM-NASICON BASED GLASS-CERAMIC.
136	Jahnavi Sharma	Anshuman Dalvi	STRUCTURAL AND ELECTRICAL INVESTIGATIONS ON LI+ NASICON BASED GLASS-CERAMICS
137	JAI AGARWAL	Bijoy Kumar Raut	FACIAL AND HAND GESTURE RECOGNITION IN MOBILE MANIPULATOR
138	JINNA HARSHITH REDDY	D Bandyopadhyay	STUDY OF MICROWAVE DIFFRACTION PATTERN OF DIFFERENT ARTIFICIAL CRYSTALS
139	JULURI ARAVIND	Sai Krishna Yaddadi	DATABASE CREATION AND MANAGEMENT AT CLOUD LEVEL FOR STREET LIGHT MONITORING.
140	KABIR AHUJA	Yashvardhan Sharma	IMPROVING QUESTION ANSWERING SYSTEMS USING MACHINE LEARNING AND DEEP LEARNING MODELS.
141	KALPIT MUNOT	Kari Babu Ravi Teja	ASIC IMPLEMENTATION OF BLOCK MATCHING ALGORITHM FOR MOTION ESTIMATION
142	KAMODIA DEVANSH NIRAJ	Tufan Chandra Bera	MANUFACTURING OF INDEXING JIG
143	KANAV PURI	Smita Raghuvanshi	APPLICATION OF CLO 2 IN CONTROLLING BIO GROWTH OVER HEAT EXCHANGERS AND DEMONSTRATION OF THE EFFECTIVENESS OF CLO 2 OVER CL 2
144	KAPADIA DARSHIL CHITAL	Santanu Chaudhary	USE OF CAPSULE NETWORKS IN FACE RECOGNITION.
145	KARLAPUDI LOHITH	Mukesh Kr Rohil	IMPLEMENTATION OF SOME METRICS FOR DATA RELIABILITY TESTING OF THE DATA USED FOR BUSINESS ANALYTICS
146	KARRI VEERA VENKATA REDDY	Santosh Kumar	REAL-TIME ONLINE PARAMETERS MONITORING USING ANDROID APPLICATIONS
147	KARTIK NAWAL	Arvind Kumar Sharma	HYDRODYNAMIC AND MASS TRANSFER ASPECTS OF FLUIDIZED BEDS (FB)
148	KAUSHIK MOUR	Shamsher B Singh	ANALYSIS AND DESIGN OF FRP REINFORCED STRUCTURE
149	KAUSTUBH SHARMA	Virendra S Shekhawat	TRAFFIC ENGINEERING USING OPENFLOW BASED SOFTWARE DEFINED NETWORKING
150	KAVISH GUPTA	Bibhas Ranjan Sarkar	STUDY IN SYNTHESIS AND APPLICATION OF POROUS MATRICES
151	KEERTI P	Girish Kant	AN INVESTIGATION OF POWER CONSUMPTION OF MACHINE TOOLS
152	KHAN FAUZAN ZAID MOHAMMED SHAFIQR REHMAN	S Mohan	DEVELOPMENT OF INDOOR POSITIONING SYSTEM FOR A SERVICE ROBOT
153	KHAN FAUZAN ZAID MOHAMMED SHAFIQR REHMAN	Avinash Gautam	APPLICATION OF HIGH SPEED COMPUTER VISION FOR ROBOT TRACKING
154	KONDAPI S SANJAY SRIVASTAV	Sumeet Saurav	HUMAN FALL DETECTION
155	KUCHIBHOTLA SRI RAGHU CHARAN	Inamur R Laskar	DESIGN AND SYNTHESIS OF AIE ACTIVE MECHANOFLUORO LUMINESCENCE COMPOUNDS AND STUDY THEIR MECHANISTIC PROPERTY
156	KUSHAGRA JAIN	Navneet Goyal	PARALLELIZATION OF TOP-DOWN SUBSPACE CLUSTERING ALGORITHMS.
157	KUSHAGRA JAIN	Poonam Goyal	PARALLELIZATION OF TOP-DOWN SUBSPACE CLUSTERING ALGORITHMS.
158	KUSHAL TRIPATHI	Smita Raghuvanshi	BIOMITIGATION OF FLUE GASES (CO <sub>2</sub> , SO <sub>x</sub> AND NO <sub>x</sub> ) USING ALGAL AND BACTERIAL CONSORTIUM AND SIMULTANEOUS PRODUCTION OF VALUE-ADDED PRODUCTS (VAPS).
159	LIKHIT TEJA VALAVALA	Anu Gupta	INSTRUMENTATION AMPLIFIER DESIGN FOR IOT BASED PROJECT MANAGEMENT SYSTEM

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S.No.	Name of the Student	Faculty Name	Project Title
160	LOHIT GUPTA	Samarth Singh	FUZZY INTERFERENCE SYSTEMS
161	M SHARAT CHANDRA	Som Sukla Maiti	OBJECT RECOGNITION USING DEEP LEARNING FRAMEWORK.
162	MANAN MEHTA	Kari Babu Ravi Teja	DEVELOPMENT OF FLEXIBLE TOUCH SENSOR.
163	MANIK	Hitesh Dutt Mathur	DESIGN OF AN OPTIMIZATION ALGORITHM FOR A MULTI AREA POWER SYSTEM
164	MANPREET SINGH	Bijoy Kumar Raut	MOTION PLANNING AND CONTROL OF A 4 WHEELED MOBILE ROBOT.
165	MANU R SRIVATHSA	Anil Kumar	SYNTHESIS OF HETEROCYCLE-FUSED QUINOLINONE DERIVATIVES VIA CROSS-DEHYDROGENATIVE COUPLING
166	MARAMREDDY RAHUL REDDY	Shibasish Chowdhury	MODELLING AND SIMULATION OF CYANOBACTERIAL PROTEIN(NITROGEN REDUCTASE)
167	MAYANK BHUTANI	Ramkinkar Roy	VALIDATING LINEAR FREE ENERGY RELATIONSHIP(LFER) THROUGH DENSITY FUNCTIONAL REACTIVITY THEORY(DFRT).
168	MEGH VIPUL THAKKAR	Dhiraj Sangwan	VISUAL CONTENT-BASED ANALYSIS USING QUERIES
169	MEGHA PALIWAL	Dalip Kumar	SYNTHESIS AND PHOTO-PHYSICAL STUDIES OF SOME NOVEL DIPYRROMETHENES
170	Megha Saini	Anil Kumar	SYNTHESIS OF COUMARIN-FUSED AZOLES USING PALLADIUM CATALYSED CROSS-DEHYDROGENATIVE COUPLING
171	MEGHA SHISHODIA	NV Muralidhar Rao	A MACHINE LEARNING APPLICATION TO CLASSIFY A LOAN AS SAFE OR RISKY.
172	MENDU VENKATA SAI SARATH CHANDRA	S.A. Akbar	LEAKAGE DETECTION AND PREDICTION IN SMART WATER GRIDS
173	MIHIR SIROHI	Navneet Goyal	VOICE BASED PROFILING OF PEOPLE
174	MOHAMMED ADNAN SHAFIQUE	Indresh Kumar	METAL-FREE SYNTHESIS OF OXAZEPINE-BASED NITROGEN HETEROCYCLES
175	MOHIT GARG	Dheerendra Singh	DEVICE MODELLING OF SIC POWER MOSFET
176	MOHIT GARG	Vinod Kumar Chaubey	DESIGN AND SIMULATION OF ISFET SENSORS USING TCAD TOOL
177	MRIGESH MADAAN	Virendra S Shekhawat	TRAFFIC FLOW MONITORING AND QUALITY OF SERVICE IN SOFTWARE DEFINED NETWORKS
178	MUSKAAN CHUGH	Dhiraj	SEMANTIC SEGMENTATION OF VIDEOS USING DEEP LEARNING APPROACH
179	MUSTAJIB MOHAMMED KHAN	Ramkinkar Roy	VALIDATING LINEAR FREE ENERGY RELATIONSHIP(LFER) THROUGH DENSITY FUNCTIONAL REACTIVITY THEORY(DFRT).
180	NALIN RAJEEV MITTAL	Sumeet Saurav	FACE LIVENESS DETECTION USING DEEP LEARNING
181	NANDANWAR KUNAL GAJANAN	Bijoy Kumar Raut	DESIGN AND DEVELOPMENT OF AUTONOMOUS RECONFIGURABLE TRACKED MOBILE ROBOTS FOR UNEVEN TERRAIN.
182	NARRA LAKSHMI SAI BHAVESH	Shibasish Chowdhury	MACHINE LEARNING APPROACH TO RNA INTERACTIONS
183	Naved Nagi	Pramod Kr Tanwar	PERFORMANCE EVALUATION OF TARGET TRACKING ALGORITHMS.
184	NAVEEN VENKAT	Santanu Chaudhary	SPOOF DETECTION
185	NEERAJ	Shamsher B Singh	ANALYSIS AND DESIGN OF FRP REINFORCED STRUCTURE
186	NEHA AGGARWAL	NV Muralidhar Rao	FRAUD DETECTION IN FINANCIAL TRANSACTIONS
187	NIKHAR MAHESHWARI	Chitra Gautam	IMPLEMENTING DATA TRANSFER FUNCTIONALITY ON CC2640R2 FOR BLE 4.0 AND ABOVE
188	NIKHIL KUMAR ROY	Arun Kumar Jalan	PREPARE A WORKING MODEL OF CANTILEVER BEAM TO SHOW CONTROL OF MECHANICAL VIBRATION.
189	NIKHIL KUMAR ROY	Bijoy Kumar Raut	HAND AND FACIAL GESTURE RECOGNITION FOR MOBILE MANIPULATOR
190	NIKHIL RANJAN	Shibasish Chowdhury	APPLICATION OF MACHINE LEARNING IN PREDICTION OF STRUCTURE AND BEHAVIOUR OF BIOMOLECULES.
191	NIKHIL RANJAN	Kamlesh Tiwari	CONTENT ANALYSER (MAPMYINDIA SPONSORED)
192	NIKHITA ANAND	Rajeev Taliyan	TO ESTIMATE THE BIOCHEMICAL MARKER, I.E.NEUROTRANSMITTER DOPAMINE AND SEROTONIN, AND THEIR METABOLITES IN BIOLOGICAL FLUIDS BY USING HPLC/ HPTLC.
193	NIKHITA ANAND	Rajeev Taliyan	FORMULATION OF ROSIGLITAZONE LOADED

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S.No.	Name of the Student	Faculty Name	Project Title
			NANOPARTICLE AND THEIR PHYSIOCHEMICAL CHARACTERIZATION.
194	NIKUNJ AGARWAL	Sumeet Saurav	EXPLORATION OF DEEP LEARNING ARCHITECTURE FOR FACE DETECTION
195	NIPUN GUPTA	G Muthukumar	FORMULATION AND ASSESSMENT OF DESIGN APPROACH FOR CONCRETE BEAMS REINFORCED WITH HIGH STRENGTH STEEL AND BASALT FIBERS
196	NIPUN VATS	Srinivas Appari	MONOLITH REACTOR FOR BIO-GAS REFORMING
197	NIRABHI SHARMA	HK Mohanta	LABORATORY TESTS FOR PETROLEUM PRODUCTS
198	NISCHAY SINGH	Navneet Goyal	HIERARCHICAL CLUSTERING ALGORITHMS IN DWARF COMPILER
199	NISHANT RATHORE	Sushila Shekhawat	CHANGING PARADIGMS OF TELEVISION JOURNALISM IN THE PRESENT CONTEXT.
200	NITISH GUPTA	Sushila Shekhawat	DOCUMENTARY FILM ON BITS PILANI
201	OSWAL ABHIN DILIP	AK Das	IN-SILICO CHARACTERIZATION OF HUB GENES FROM PLASMIDIUM SPP
202	OZA VILOM GANPATLAL	M S Dasgupta	EFFECT OF MAGNETIC FIELD, ELECTRIC FIELD AND MICROWAVE ON FREEZING AND THEIR APPLICATION
203	PANDILLAPALLI BHARGAV	Ashutosh Bhatia	INFORMATION GATHERING FROM ENCRYPTED MOBILE APPLICATION
204	PARIDHI GUPTA	Aniruddha Roy	PREPARATION AND CHARACTERISTICS OF TUMOR SPHEROID CULTURE
205	PARTH DOGRA	NV Muralidhar Rao	PUBLIC CAPITAL, INFRASTRUCTURE AND INDUSTRIAL DEVELOPMENT
206	PARTH SHARMA	Tufan Chandra Bera	MANUFACTURING OF INDEXING JIG
207	PARTH SARTHII	Santanu Chaudhary	SPOOF DETECTION
208	PATEL PARTH	Som Sukla Maiti	CLASSIFICATION OF EEG DATA USING ML TECHNIQUES.
209	PATRA PRITAM ASIT		HIGH ISOLATION BASED CAPACITIVE RF MEMS SWITCHES
210	PEESA JAGADEESH	D Bandyopadhyay	STUDY OF MICROWAVE DIFFRACTION PATTERN OF DIFFERENT ARTIFICIAL CRYSTALS
211	PENTA SRUJAN	Arnab Hazra	STRUCTURAL EFFECT OF 1-D METAL OXIDE NANOSTRUCTURES IN SENSITIVITY IMPROVEMENT OF GAS/VAPOUR SENSORS
212	PENTA SRUJAN	Dheerendra Singh	DEVICE MODELLING OF SIC POWER MOSFET
213	PIYUSH DUSAD	Vishal Saxena	BIOSENSORS FOR THE DETECTION OF PATHOGENS AND PHYSIOLOGICAL DISEASES
214	PRACHI SHARMA	Anu Gupta	EXPLORATION OF DYNAMIC VOLTAGE AND FREQUENCY SCALING TECHNIQUE FOR LOW POWER CONSUMPTION VLSI CIRCUITS
215	PRADHAN ROSHAN NITIN	Amol M R Marathe	DYNAMIC ANALYSIS OF EDS PASSIVE-MAGNET BASED HYPERLOOP SYSTEM
216	PRAKHAR SRIVASTAVA	Anil Saini	BLOCK CHAIN BASED BIOMETRIC ACCESS CONTROL
217	PRANATI JAIN	HK Mohanta	LABORATORY TESTS FOR PETROLEUM PRODUCTS
218	PRANAV RAJ PRAKASH	Dheerendra Singh	COMPARISION OF SLIDE MODE CONTROL (SMC) AND RETROSPECTIVE COST ADAPTIVE CONTROL(RCAC) TECHNIQUES TO BE USED IN CONTROLLERS CONTROLLING THE SPEEDS OF INDUCTION MOTOR DRIVES FOR ELECTRIC VEHICLE
219	PRASOON TRIVEDI	Abhishek Mishra	HYBRID QUANTUM INSPIRED GENETIC ALGORITHM FOR SCHEDULING OF REAL TIME TASKS IN MULTIPROCESSOR SYSTEMS
220	PRATEEK AGARAWAL	NV Muralidhar Rao	FRAUD DETECTION IN FINANCIAL TRANSACTIONS
221	PRATYUSH DUBEY	Vishal Gupta	DNS BASED DDOS ATTACKS
222	PRIYANSHI P GUPTA	Ajit Pratap Singh	AN EMPIRICAL SOLUTION OF NON UNIFORM FLOW AND ITS ANALYTICAL STUDY UNDER UNCERTAIN CONDITIONS.
223	PULI BHARATHA RATNA DEEP	K S Raju	STRUCTURAL AND HEALTH MONITORING
224	PULKIT SHARMA	Vishal Saxena	APPLICATION OF MACHINE LEARNING ALGORITHMS IN PHYSIOLOGICAL DISORDERS
225	PUREKAR ANIRUDDHA SUNIL	Syamantak Majumder	EFFECT OF HIGH GLUCOSE IN ENDOTHELIAL CELL EPIGENETICS THAT CAUSES ENDOTHELIAL INFLAMATION
226	RACHIT AGRAWAL	Prabhat Nath Jha	BIOFILMS AND CURLY PROTEINS

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S.No.	Name of the Student	Faculty Name	Project Title
227	RADHIKA PASARI	Amit Dua	TEST
228	RAHUL BOTHRA	Pramod Kr Tanwar	STUDY AND ANALYSIS OF 3D MODELS FOR CREATING AR/VR
229	RAHUL SHIV CHAND	Yashvardhan Sharma	NATURAL LANGUAGE PROCESSING TASKS FIRE 2018.
230	RAHUL SINGH	K Hari Babu	WAYPOINT ENFORCEMENT TO VLAN USING SINGLE SDN SWITCH
231	RAJAT JAIN	Shan Balasubramaniam	GRAPH CLUSTERING AND DATA STRUCTURES IN DISTRIBUTED SYSTEMS
232	RAJAT JAIN	Lavika Goel	PLATE TECTONICS BASED OPTIMIZATION
233	RAJAT KHANDELWAL	Hari Om Bansal	DESIGN OF ENERGY OPTIMIZATION STRATEGIES FOR PLUG IN HYBRID ELECTRIC VEHICLES
234	RAJAT P THAKUR	Yashvardhan Sharma	IMPROVING QUESTION ANSWERING SYSTEM USING DEEP LEARNING MODELS
235	RAJAT P THAKUR	Pramod Kr Tanwar	USING DEEP LEARNING MODELS TO GENERATE DENSE CAPTIONS FOR IMAGES
236	RAKSHIT NANWANI	Manjuladevi V	I-V CHARACTERIZATION OF DISCOTIC LIQUID CRYSTALS
237	RAM KRISHNA	Anu Gupta	INSTRUMENTATION AMPLIFIER DESIGN FOR IOT BASED PROJECT MANAGEMENT SYSTEM.
238	RAM SIMRAN GROVER	NV Muralidhar Rao	EMPIRICAL ANALYSIS OF NPAS IN INDIA
239	RAM SIMRAN GROVER	Hitesh Dutt Mathur	ANALYSIS OF FREQUENCY AND VOLTAGE VARIATION IN AN ISOLATED MICRO GRID SCENARIO
240	RAMPALLI SAI SRIVATSA	Sachin U Belgamwar	PREPARATION OF COMPOSITES OF GRAPHENE WITH COPPER
241	RASHI SINGHAL	Rajeev Taliyan	TO STUDY THE EFFECTS OF RESVERATROL ON MODULATION OF NEUROTRANSMITTER I.E. DOPAMINE AND ACETYLCHOLINE AND THEIR ESTIMATION IN BIOLOGICAL FLUIDS.
242	RAVEESH GARG	Chandra Shekhar	APPLICATION SPECIFIC PROCESSOR DESIGN
243	RAVI KANT SAINI	Sushila Shekhawat	CHANGING PARADIGMS OF TELEVISIONS JOURNALISM IN THE PRESENT CONTEXT.
244	REETIKA SRIVASTAVA	D D Pant	SPECTROSCOPY
245	RINKESH RAJKUMAR JAIN	Dhiraj Sangwan	CATEGORY CLASSIFICATION IN AERIAL IMAGES USING DEEP LEARNING APPROACH
246	RISHABH GAUR	K P Venkatesh	ANALYZE THE INFLUENCE OF CIRCADIAN RHYTHM ON BLOOD FLOW THROUGH THE ARTERIES.
247	RISHABH JAIN	Subhashish Gangopadhyay	THIN-FILM RESISTIVITY
248	RISHABH MATHUR	S Gurunarayanan	EXPLOITING INSTRUCTION LEVEL PARALLELISM (ILP) FOR PERFORMANCE IMPROVEMENT OF COMPUTING SYSTEMS.
249	RITABAN ROY	Dhiraj	SEMANTIC SEGMENTATION USING DEEP LEARNING APPROACH
250	RITESH OJHA	K K Gupta	LORA BASED COMMUNICATION FOR AIR QUALITY MONITORING.
251	ROHAN SANJAY MEHTA	Manjuladevi V	NANOMATERIAL DOPED LIQUID CRYSTALS
252	ROHIT LODHA	Pramod Kr Tanwar	PERFORMANCE EVALUATION OF TARGET TRACKING ALGORITHMS.
253	ROHITKUMAR ARASANIPALAI	S Mohan	REAL-TIME NEIGHBOR REFERENCED MULTI-ROBOT LOCALIZATION
254	RONANKI SRI GOURI	Murali M Pandey	DISSOLUTION ENHANCEMENT OF POORLY SOLUBLE DRUGS WITH THE USE OF NANO-CRYSTALLISATION
255	RUDRAJ TARAKBHAI MEHTA	Chandra Shekhar	HARDWARE DESIGN FOR THE ON-BOARD COMPUTER OF NANO-SATELLITE.
256	RUNAL SHRIVASTAVA	Ajit Pratap Singh	AN EMPIRICAL STUDY OF NON- UNIFORM FLOW AND ITS ANALYTICAL SOLUTION UNDER UNCERTAIN CONDITIONS
257	SABYASACHI DASH	Bijoy Kumar Raut	ELASTIC PATH PLANNING ON A DYNAMIC UNEVEN TERRAIN
258	SAHAJ SRIVASTAVA	Sumeet Saurav	DEVELOPMENT OF HUMAN FATIGUE AND DROWSINESS DETECTION
259	SAHIL GUPTA	Nitin Chaturvedi	HARDWARE ACCELERATORS FOR DEEP LEARNING ALGORITHMS
260	SAHIL MEHRA	Ashish Patel	SMART WATER GRID SYSTEMS

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S.No.	Name of the Student	Faculty Name	Project Title
261	SAHIL SINGLA	A. S. Mandal	PAIN RECOGNITION USING FACIAL EXPRESSIONS
262	SAI SHUBODH P	Bijoy Kumar Raut	PATH PLANNING FOR SLAM BASED MAPPING IN A DYNAMIC ENVIRONMENT
263	Saikrishna Kondameedi	S.A. Akbar	APPLICATIONS OF CYBER PHYSICAL SYSTEMS
264	SAKSHAM NAGAR	Abhishek Mishra	PERFORMANCE EVALUATION OF SIMULATED ANNEALING BASED TASK SCHEDULING ALGORITHMS
265	SALAHUDDIN MD. SHARIB	Pratik N Sheth	THEORETICAL AND EXPERIMENTAL STUDY ON THE PYROLYSIS
266	SAMIP JASANI	Poonam Goyal	DESIGN IMPLEMENTATION OF PARALLEL ALGO. FOR DE NOVO WHOLE GENOME ASSEMBLY
267	SANJAY MALHOTRA	Dhiraj Sangwan	VIOLENCE DETECTION USING MACHINE LEARNING
268	SANKET JAIN	G Muthukumar	EXPERIMENTAL STUDY OF DUCTILE AND STRENGTH CHARACTERISTICS OF CONCRETE DEEP BEAMS REINFORCED WITH HIGH STRENGTH STEEL AND BASALT FIBRE UNDER ELEVATED TEMPERATURE CONDITIONS.
269	SANSKRITI SHARMA	Yashvardhan Sharma	TEXT SUMMARIZATION USING MACHINE LEARNING AND DEEP LEARNING TECHNIQUES
270	SARANSH MOHANTY	Smita Raghuvanshi	APPLICATION OF CLO2 IN CONTROLLING BIO GROWTH OVER HEAT EXCHANGERS AND DEMONSTRATION OF EFFECTIVENESS OF CLO2 OVER CL2.
271	SARTHAK SRIVASTAVA	Shibasish Chowdhury	APPLICATION OF MACHINE LEARNING IN BIO-MOLECULAR RECOGNITION.
272	SATWIK BHATTAMISHRA	Shibasish Chowdhury	CLUSTERING GENE EXPRESSION DATA USING GENERATIVE ADVERSARIAL NETWORKS
273	SATYAKI ROY	Smita Raghuvanshi	BIO MITIGATION OF FLUE GASES (CO2 , SOX AND NOX) USING ALGAL AND BACTERIAL CONSORTIUM AND SIMULTANEOUS PRODUCTION OF VALUE ADDED PRODUCTS (VAPS)
274	SAURABH AGGARWAL	Navneet Goyal	DOMAIN SPECIFIC LANGUAGE DESIGN FOR CLASSIFICATION
275	SAURABH AGGARWAL	Navneet Goyal	DOMAIN SPECIFIC LANGUAGE DESIGN FOR CLASSIFICATION PROBLEMS.
276	SAURABH MANISH RAJE	Shan Balasubramaniam	IMPLEMENTATION OF A DATA DISTRIBUTION LAYER FOR DWARF COMPILER
277	SAURAV	R. Srinivas	STUDYING THE IMPACT OF CHANGES IN BED CHARACTERISTICS ON THE HYDROLOGICAL CHARACTERISTICS OF A CHANNEL.
278	SHAH SHREY AMIYA	Ashish Patel	DESIGN AND IMPLEMENTATION OF DIGITAL CONTROL OF SRM/INDUCTION MOTOR USING MICROCONTROLLER/FPGA
279	SHETH HARSH RAJENDRAKUMAR	Bharti Khungar	IDENTIFYING MOLECULAR STRUCTURES USING MACHINE LEARNING
280	SHETH KAVAN SAMIR	Surojit Pande	SYNTHESIS AND IMPLEMENTATION OF FUNCTIONALISED AG NANOMATERIALS INTO CATALYSIS.
281	SHETH KAVAN SAMIR	Girish Kant	AN INVESTIGATION OF ENERGY CONSUMPTION OF MACHINE TOOLS
282	SHIVAM	Avinash Gautam	STUDY OF PATH PLANNING AND OBSTACLE AVOIDANCE IN STATIC AND DYNAMIC ENVIRONMENT
283	SHIVANI SINGH	Ashish Patel	DSP/FPGA BASED CONTROL OF POWER ELECTRONIC CONVERTERS FOR INTEGRATION OF RENEWABLE ENERGY SOURCES
284	SHIVANKIT GAIND	Poonam Goyal	ONLINE STREAMING ALGORITHMS FOR SOCIAL MEDIA ANALYTICS
285	SHIVANSHU DWIVEDI	K K Gupta	STUDY OF FOREGROUND EXTRACTION IN HEVC COMPRESSED DOMAIN.
286	SHIVESH GANJU	Amit Dua	REALIZING EFFECTIVE UTILIZATION OF VEHICULAR NETWORK USING SOFTWARE DEFINED NETWORKING
287	SHRADDHA JAIN	Pratik N Sheth	EXPERIMENTAL STUDY OF FIXED BED PYROLYSIS SYSTEM.
288	SHRAVAN TUMMALA	NV Muralidhar Rao	FRAUD DETECTION IN FINANCIAL TRANSACTIONS USING MACHINE LEARNING
289	SHRIYANSH	Gautam Singhvi	PREPARATION AND CHARACTERIZATION OF



Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
	SRIVASTAVA		NANOCRYSTALS OF POORLY SOLUBLE DRUGS AND STUDY VARIOUS PHYSICO-CHEMICAL PROPERTIES.
290	SHRIYANSH SRIVASTAVA	Atish T R Paul	INVESTIGATION OF SELECTED MEDICINAL PLANTS ON FATTY LIVER
291	SHUBHAM CHOUDHARY	Prabhat Nath Jha	BIOFILMS AND CURLY PROTEINS
292	SHUBHAM JAIN	Kamlesh Tiwari	HI I AM RAM(TEXT TO SPEECH)
293	SHUBHAM MAURYA	Yashvardhan Sharma	IMPROVING TEXT SUMMARIZATION USING MACHINE LEARNING AND DEEP LEARNING TECHNIQUES
294	SHYAMAL VERMA	G Muthukumar	EXPERIMENTAL INVESTIGATION OF NORMAL STRENGTH BASALT FIBER REINFORCED CONCRETE.
295	SIDDHANT JAIN	Poonam Goyal	PARALLELIZATION OF K-MEDOIDS CLUSTERING ALGORITHM.
296	SIDDHANT THAKURIA		RF MEMS TECHNOLOGY BASED SHUNT CAPACITIVE SWITCHES FOR X-BAND APPLICATIONS
297	SIDDHARTH NAGPAL	Navneet Goyal	DOMAIN SPECIFIC LANGUAGE DESIGN FOR CLASSIFICATION
298	SIDDHARTH UPPAL	Anupama Mittal	DEVELOPMENT AND EVALUATION OF MICELLES FOR DELIVERY OF AN ANTI-DIABETIC MOLECULE.
299	SIDDHARTH UPPAL	Aniruddha Roy	DEVELOPMENT OF SPHEROID CULTURE MODEL.
300	SNEHA KUMARI	Rajeev Sakhuja	METAL-FREE STRATEGIES FOR THE SYNTHESIS OF COUMARIN-FUSED HETEROCYCLES
301	SOM CHOUDHARY	Bibhas Ranjan Sarkar	STUDY IN CATALYTIC EPOXIDATION FROM BIO-MASS BASED FATTY ACID METHYL ESTERS
302	SREE TEJA NANDURI	Atanendu Sekhar Mandal	PAIN RECOGNITION USING DEEP LEARNING
303	SRINIVASH M	Aniruddha Roy	DEVELOPMENT OF COMBINATION THERAPY FOR CANCER AND CANCER STEM CELLS
304	SRISHTI GOEL	Sharad Srivastava	EFFECTS OF NON-NEWTONIAN PROPERTIES OF BLOOD FLOW ON MAGNETIC NANO-PARTICLES TARGETED DRUG DELIVERY
305	SRISHTI SHARMA	Murali M Pandey	SOLUBILITY ENHANCEMENT OF POORLY SOLUBLE DRUGS
306	SUBHAM CHOUDHURY	Gautam Singhvi	PREPARATION AND CHARACTERIZATION OF NANOCRYSTALS OF POORLY SOLUBLE DRUGS AND STUDY THE VARIOUS PHYSIO-CHEMICAL PROPERTIES
307	SUBHAM CHOUDHURY	Atish T R Paul	PHYTOCHEMICAL INVESTIGATION OF SELECTED MEDICINAL PLANT FOR PANCREATIC LIPASE INHIBITION
308	SUBHAM THAKUR	Dipendu Bhunia	INVESTIGATION OF THE EFFECT OF CANTILEVER BEAM ON DYNAMIC LOADING BY SHAKE TABLE MACHINE
309	SUMAN S CHUKKI	Ajit Pratap Singh	AN EMPIRICAL STUDY OF NON-UNIFORM FLOW AND ITS ANALYTICAL SOLUTIONS UNDER UNCERTAIN CONDITIONS
310	SUNITA BUGALIA	D D Pant	UV VISIBLE SPECTROSCOPY OF MOLECULES
311	SUSHANT GUPTA	Vishal Saxena	BIOSENSORS FOR THE DETECTION OF PATHOGENS AND PHYSIOLOGICAL DISEASES
312	TANMAY JAIN	Pratik N Sheth	EXPERIMENTAL STUDY ON BIOMASS COOK STOVE.
313	TANUJ KUMAR	Chandra Shekhar	DESIGN OF INTERRUPT HANDLERS FOR COMMUNICATION WITH GPIO AND BETWEEN PS & PL OF A ZYNQ-7000 SOC ON A ZEDBOARD.
314	TANVI AGGARWAL	Sumeet Saurav	DEVELOPMENT OF HUMAN FATIGUE AND DROWSINESS DETECTION
315	THONTEPU NAGA DATTA MADHU KIRAN	Sumeet Saurav	HUMAN FALL DETECTION
316	TOL VRUNDA MUKUND	Subit Kumar Saha	PROBING, DENATURATION AND RENATURATION OF BSA USING FORSTER RESONANCE ENERGY TRANSFER (FRET) METHOD
317	TRANJOT SINGH	Smita Raghuvanshi	INTEGRATED STUDIES FOR BIO-MITIGATION OF CO <sub>2</sub> AND CONVERSION INTO VALUE ADDED PRODUCTS.
318	TUSHAR ARORA	Virendra S Shekhawat	DELAY TOLERANT NETWORK(DTN) BASED APPLICATION DESIGN AND IMPLEMENTATION
319	TUSHAR GOEL	Dhiraj Sangwan	GENERATING REALISTIC IMAGES FROM SYNTHETIC IMAGES USING GANS
320	UMMAY AIMAN HAIDRY	Smita Raghuvanshi	APPLICATION OF CLO <sub>2</sub> IN CONTROLLING BIO GROWTH OVER HEAT EXCHANGERS AND

Laboratory Project			
S.No.	Name of the Student	Faculty Name	Project Title
			DEMONSTRATION OF EFFECTIVENESS OF CLO2 OVER CL2
321	UTKARSH SHIVNARAYAN BAJAJ	Ashish Patel	SMART WATER GRID SYSTEM
322	UTKARSH VASHISHTHA	Santanu Chaudhary	USING CAPSULE NETWORKS FOR FACE RECOGNITION
323	V SRI HARSHA	Atanendu Sekhar Mandal	PAIN RECOGNITION USING DEEP LEARNING
324	VAIBHAV RAJ	NV Muralidhar Rao	NEXUS BETWEEN PUBLIC INFRASTRUCTURE INVESTMENT AND ECONOMIC GROWTH
325	VAIBHAV SHARMA	Saumi Ray	COMPARATIVE CATALYTIC STUDIES OF HOST-GUEST SYSTEMS WITH DIFFERENT MESOPOROUS MATERIALS.
326	VAIBHAV SINGH	K K Gupta	STUDY OF FOREGROUND EXTRACTION IN HEVC COMPRESSED DOMAIN.
327	VAIBHAVI RASTOGI	Anshuman Dalvi	SYNTHESIS AND CHARACTERIZATION OF POLYMER NASICON HYBRID NANO-COMPOSITE.
328	VAISHNAVI BHARGAVA	Dhiraj Sangwan	VIOLENCE DETECTION USING MACHINE LEARNING TECHNIQUE
329	VANCHANAGIRI RAHUL	Sai Krishna Yaddadi	TIME SYNCHRONIZATION AND DATA TRANSFER FOR WIRELESS SENSOR NODES (BLE NODES)
330	VARUN AGARWAL	Dhiraj Sangwan	VISUAL CONTENT BASED ANALYSIS USING QUERIES
331	VEDANT BAGHEL	Dhiraj Sangwan	BREAST CANCER IDENTIFICATION USING DEEP LEARNING APPROACH
332	VEDHANT KAUL	Gautam Singhvi	SOLUBILITY ENHANCEMENT OF CURCUMIN
333	VEDHANT KAUL	Gautam Singhvi	PREPARATION AND CHARACTERIZATION OF NANO CRYSTALS OF CURCUMIN
334	VENKAT ASHRITH J.R	Dipendu Bhunia	AN EXPERIMENTAL INVESTIGATION OF DEEP BEAM WITH DIFFERENT TYPES OF REINFORCEMENT ARRANGEMENT
335	VIDHAN JOLLY	Nitin Chaturvedi	STUDY AND DESIGN OF NEUROMORPHIC CIRCUITS
336	VIDIT BHAT	Jl Raheja	DRUG ABUSE ENSEMBLE CLASSIFIER
337	VIGNESH N	Poonam Goyal	PARALLELIZATION OF SEARCH QUERIES FOR DATA MINING ALGORITHMS
338	VIGNESH N	Poonam Goyal	PARALLELIZATION OF UNIONFIND ALGORITHM (AND OPTIMIZE IT) AND THEN ITS APPLICATION TO EXISTING CLUSTERING ALGORITHMS
339	VINAYAK GUPTA	Chitra Gautam	IMPLEMENTATION OF DATA TRANSFER FUNCTIONALITY ON CC2640R2 FOR BLE 4.0
340	VINEETH NAROJU	Ashutosh Bhatia	INFORMATION GATHERING FROM ENCRYPTED MOBILE APPLICATION
341	VISHWESH RAVI SHRIMALI	Jitendra S Rathore	COMPARATIVE STUDY OF FINITE VOLUME METHOD, LATTICE BOLTZMANN METHOD AND SMOOTHED HYDRODYNAMICS FOR CFD SIMULATION
342	VIVEK G NAYAK	Rakhee	SIMULATION OF DYNAMIC ONLINE AND COST-SHARING AUCTIONS
343	VIVEK SINGHVI	Pramod Kr Tanwar	PERFORMANCE EVALUATION OF TARGET TRACKING ALGORITHMS.
344	WARADPANDE VIKRAM AVINASH	Shan Balasubramaniam	PARALLELIZATION OF GRAPH CLUSTERING ALGORITHMS
345	YAJAT DAWAR	Dhiraj Sangwan	CATEGORY CLASSIFICATION IN AERIAL IMAGES USING DEEP LEARNING APPROACH
346	YASH SAKHARE	G Muthukumar	EXPERIMENTAL ASSESSMENT OF EFFECT OF ELEVATED TEMPERATURE ON HIGH STRENGTH CONCRETE MIX WITH MINERAL ADMIXTURE
347	YEMBARWAR AYUSH KISHOR	Manjuladevi V	NANOMATERIAL DOPED LIQUID CRYSTALS

Study Project			
S. No.	Name of Student	Faculty Name	Project Title
1	AABHAAS VAISH	Vinay Chamola	ADVANCED OPTIMIZATION TECHNIQUES
2	AADITAYA RAJ ROSHAN	Dipendu Bhunia	EARTHQUAKE RESISTANT CONSTRUCTION MATERIAL
3	AAKASH SHARMA	Satyendra Kr Sharma	FEASIBILITY OF DRONES IN LAST MILE DELIVERY.
4	AASTHA KATARIA	Amit Dua	EFFICIENT COMMUNICATION USING LATTICE BASED

Study Project			
S. No.	Name of Student	Faculty Name	Project Title
			CRYPTOGRAPHY IN VANETS
5	AAYUSH CHUDGAR	Ashutosh Bhatia	INFORMATION GATHERING OF MOBILE DEVICES BY ENCRYPTED NETWORK TRAFFIC ANALYSIS
6	AAYUSHMAAN JAIN	S Balasubramanian	DESIGNING VIRTUAL MACHINE FOR DWARF COMPILER.
7	ABBAS ALI	A Bhaskar (Goa)	ABC
8	ABBAS ALI PANSARY	NV Muralidhar Rao	PREDICTING OUTCOMES AND ECONOMIC ANALYSIS OF FOOTBALL MATCHES AND PERFORMANCE OF PLAYERS.
9	ABBAS ALI PANSARY	Vinod Kumar Chaubey	MODELLING AND SIMULATION OF ISFET SENSOR
10	ABHAY AGARWAL	J L Raheja	SMART SHOE: FALL DETECTION AND HUMAN BODY MOVEMENTS USING MACHINE LEARNING.
11	Abhaya Sharma	NV Muralidhar Rao	AN EXPLORATORY STUDY ON FINANCIAL INCLUSION AND DEVELOPMENT IN INDIA.
12	ABHIJIT KUMAR	Avinash Gautam	DESIGN AND DEVELOPMENT OF AN ANDROID APP FOR RECEIVING SERVICE REQUESTS FROM A TEAM OF MOBILE ROBOTS
13	ABHIJIT KUMAR	Ajit Pratap Singh	DEVELOPMENT OF WATER QUALITY MONITORING NETWORK USING IOT.
14	ABHIJITH UNNIKRISHNAN	Satyendra Kr Sharma	SUPPLY CHAIN MANAGEMENT USING ARTIFICIAL INTELLIGENCE
15	ABHIK ROY	Satyendra Kr Sharma	DRIVER AND VEHICLE TELEMATICS ANALYSIS USING DEEP LEARNING
16	ABHILASH NEOG	J L Raheja	CANCER DETECTION USING HYPERSPECTRAL IMAGING
17	ABHINAV GUPTA	Krishnendra Shekhawat	A STUDY OF ORTHOGONAL LAYOUTS
18	ABHINAV SHARMA	Rajiv Kumar	STUDY OF ALGORITHMS IN CLUSTERING OF GRAPHS
19	ABHIRAJ SINGH PANWAR	Manoj Kumar	ANALYSIS OF THERMAL STRESSES IN CONCRETE BOX GIRDER BRIDGES
20	Abhiram Sharma	Rajneesh Choubisa	IS THERE A PERFECT MARKETING STRATEGY WITH RESPECT TO PSYCHOLOGY ?
21	ABHIROOP BHATTACHARJEE	Hari Om Bansal	DEVELOPMENT OF MPPT ALGORITHMS FOR PV SYSTEMS
22	ABHISHEK AGARWAL	Rajan Pandey	RELATIONSHIP BETWEEN CAPITAL STRUCTURE DECISIONS AND DIVIDEND POLICY OF A CORPORATION
23	ABHISHEK ANAND	Manoj Kumar	ANALYSIS OF NON PRISMATIC INDETERMINATE BEAMS
24	ABHISHEK BHAGERIA	Geetilaxmi Mohapatra	FERTILISER SUBSIDIES AND AGRICULTURAL PRODUCTION IN INDIA
25	ABHISHEK BHARDWAJ	Bharti Khungar	STUDY OF METHODS OF HYDROXYMETHYLFURFURAL SYNTHESIS FROM BIOMASS
26	ABHISHEK GUPTA	Arya Kumar	DEVELOPMENT OF A FRAMEWORK FOR AN EFFICIENT AND EFFECTIVE CSR FUND ALLOCATION
27	ABHISHEK LALWANI	Surekha Bhanot	ACCELERATING DEEP CONVOLUTIONAL NETWORKS FOR CLASSIFICATION AND DETECTION
28	ABHISHEK TANDON	Girish Kant	STUDY THE VARIOUS ISSUES OF GOVERNMENT SUPPORTED HEALTHCARE SUPPLY CHAIN IN INDIA
29	ABHRAN ANURAG	Amit Jain	STUDIES ON THE AFFECT OF WATER MIST ON POOL FIRES SUPPRESSION
30	ACHAL AGARWAL	Shan Balasubramaniam	DESIGN AND ANALYSIS OF PARALLEL/DISTRIBUTED ALGORITHMS AND DATA STRUCTURES
31	ADABALA SANDEEP	B.A. Botre	ARTIFICIAL INTELLIGENCE CONTROLLED ACTUATORS BASED ON THERMO-RESPONSIVE SMART MATERIALS.
32	ADEESH BHARGAVA	Sailaja Nandigama	TECHNOLOGICAL ADVANCEMENTS IN FINDING ECO-FRIENDLY SOLUTIONS
33	ADIL KHAN	Keyur Joshi	STUDY OF HAEMODYNAMICS USING ANSYS
34	ADITI AGARWAL	A. S. Mandal	AI BASED COMPUTE CARE FOR CANCER
35	ADITI SINGH	Deepak Chitkara	MIRNAS AS THERAPEUTIC TOOL FOR GLIOBLASTOMA MULTIFORME
36	ADITYA PAI K	P Chattopadhyay	FOAM FOR FOOD BASED APPLICATIONS
37	ADITYA AGARWAL	Arun Kumar Vaish	IMPLIED VOLATILITY - STRATEGIES AND INSTRUMENTS
38	ADITYA DESWAL	Archana K K	TARGETING OF DIFFERENT DISEASES ON THE BASIS OF NANOPARTICLES.

Study Project			
S. No.	Name of Student	Faculty Name	Project Title
39	ADITYA GOYAL	Amit Dua	STOCHASTIC PROCESS BASED DEMAND RESPONSE MANAGEMENT IN SMART GRID
40	ADITYA JAIN	G Muthukumar	TO INVESTIGATE THE BEHAVIOUR OF CONCRETE STRUCTURES SUBJECTED TO FIRE LOAD
41	ADITYA KHANDELWAL	Jitender Kumar	SEMIGROUPS AND THE ZERO DIVISOR GRAPHS
42	ADITYA KHANDELWAL	Praveen Kumar A V	COMPUTATION OF DIFFRACTION COEFFICIENT FOR FINITE GROUND PLANE ANTENNA.
43	ADITYA MASOOR	Jennifer Ranjani J.	DRIVERS SLEEP DETECTION
44	ADITYA MURARKA	NV Muralidhar Rao	EXTREME VALUE ANALYSIS OF MAJOR STOCK INDICES.
45	ADITYA POLA	Manjuladevi V	NANOPARTICLE DOPED LIQUID CRYSTALS
46	ADITYA PRAMOD PATIL	Rajesh Mehrotra	STUDY OF CIS-REGULATORY ELEMENTS IN PLANT GENE EXPRESSION UNDER ABIOTIC CONDITIONS
47	ADITYA R BIRADAR	Rajesh P Mishra	DEVELOPMENT OF FRAMEWORK FOR SIX SIGMA IN SMALL AND MEDIUM SIZED INDIAN MANUFACTURING ENTERPRISES
48	ADITYA RAJ AGARWAL	Kumar S Bhattacharya	BEYOND CULTURE: YOUR R/PLACE ON THE INTERNET
49	ADITYA RATHI	Praveen Kumar A V	COMPUTATION OF DIFFRACTION COEFFICIENT FOR FINITE GROUND PLANE ANTENNA.
50	ADITYA RUSTAGI	Bibhas Ranjan Sarkar	SEMICONDUCTOR CATALYSIS OF SPLITTING OF WATER
51	ADITYA SANGRAM SINGH RANA	Surekha Bhanot	DISTRACTED DRIVER DETECTION AND ALARM
52	ADITYA SHARMA	Saumi Ray	ZEOLITES AS CATALYSTS IN CHEMICAL INDUSTRY
53	Aditya Sharma	Pushp Lata	SOCIAL MEDIA AS A TOOL FOR CREATING AWARENESS
54	ADITYA SODHANI	Kavindra Kandpal	EFFECT OF GRAIN BOUNDARY AND INTERFACE TRAPS ON THRESHOLD VOLTAGE OF OXIDE T.F.T
55	ADITYA VASWANI	Tapomoy G Sarkar	STUDY OF SPACETIME SYMMETRIES AND CLASSICAL FIELD THEORY
56	AESHVARYA MITTAL	Suresh Gupta	APPLICATION OF BIG DATA ANALYTICS IN CHEMICAL ENGINEERING
57	AGARWAL VAIBHAV SUNILKUMAR	M S Dasgupta	GEAR BOX DESIGN VIA MIXED INTEGER PROGRAMMING
58	AGRAWAL NISHCHAY RAVI	Virendra S Shekhawat	PERFORMANCE ANALYSIS OF ZIGBEE MESH NETWORK
59	AJAY SHRINIVAS.M	Ajit Pratap Singh	DEVELOPMENT OF FRESHWATER RESOURCES USING COASTAL RESERVOIR ENGINEERING AND MANAGEMENT
60	AJIT POL	M S Dasgupta	STUDY AND DEVELOP THE PRODUCT DIFFUSION MODEL FOR ESTIMATING THE E-PRODUCTS
61	AKANKSHA DARA	Rajneesh Choubisa	SARCASM AND DECEPTION DETECTION IN SOCIAL MEDIA - UTILIZING DATA MINING APPROACH
62	AKANKSHYA MISHRA	Vandana Agarwal	INTELLIGENT PARKING SYSTEM
63	AKARSH CHATURVEDI	Rakesh Choubisa	HIGH-HARMONIC SPECTROSCOPY OF ALIGNED MOLECULES
64	AKARSH RASTOGI	Murali Palla	PREDICTING THE MICROSTRUCTURE OF AN ALLOY USING COMPUTATIONAL THERMODYNAMICS (OR PHASE FIELD MODELING)
65	AKASH AGGARWAL	Rahul Singhal	NEAR FIELD COMMUNICATION USING INFRARED COMMUNICATION TECHNOLOGY.
66	AKASH SHARMA	Rajesh P Mishra	ANALYSIS OF MAINTENANCE SYSTEM FOR SMALL AND MEDIUM SCALE INDUSTRY.
67	AKASH SINGH	G Muthukumar	FIRE MODELING FOR PERFORMANCE BASED DESIGN
68	AKSHAJ KASLIWAL	Rajan Pandey	A STUDY ON BEHAVIOURAL FINANCE: CASE OF INDIA.
69	AKSHAT BARANWAL	Jahagirdar Ankush Chandrakant	ON IMPLEMENTATION OF FOURIER NEURAL NETWORKS/WAVELET NEURAL NETWORKS
70	AKSHAT MEHTA	Suresh Gupta	IMPROVING THE EFFICIENCY OF STYRENE ETHYL BENZENE DISTILLATOR
71	AKSHAY JHANWAR	Sumeet Saurav	DEEP LEARNING ARCHITECTURE OPTIMIZATION FOR REAL TIME OBJECT DETECTION USING TENSORRT
72	AKSHAY KATTA	Jitendra S Rathore	STUDY ON NANO SWIMMERS IN DIFFERENT REYNOLDS NO. FLUID
73	AKSHAY MAHAJAN	Dipendu Bhunia	EARTHQUAKE RESISTANT CONSTRUCTION MATERIAL

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S. No.	Name of Student	Faculty Name	Project Title
74	Akshaya	Kumar Neeraj Sachdev	SUBVERSIVE FEMININITY IN 21ST CENTURY ELECTRONIC MEDIA NARRATIVES;AN ETHICAL PERSPECTIVE
75	AKSHIT AGARWAL	Dhiraj Sangwan	FULLY CONVOLUTIONAL NETWORKS FOR ACTION RECOGNITION
76	AKSHIT DEEP SINGH	Vinod Kumar Chaubey	MODELING AND SIMULATION OF ISFET SENSOR.
77	AKUL MALHOTRA	Nitin Chaturvedi	DESIGN OF NONVOLATILE SRAM CELLS FOR STORING MULTIPLE BITS IN RUN-TIME SWITCHING CONTEXT IN IOT.
78	ALEX MATHAI	Yashvardhan Sharma	IDENTIFYING SARCASTIC SENTENCES FOR A GIVEN TEXT
79	AMAAYAA GOSWAMI	J N Bandopadhyay	PHYSICAL REALIZATION OF QUANTUM COMPUTERS
80	AMAN AGARWAL	Kumar Neeraj Sachdev	PROFESSIONAL ETHICS - ISSUES OF SOFTWARE ENGINEERING
81	AMAN GARG	Kamlesh Tiwari	NATURAL LANGUAGE GUIDED REINFORCEMENT LEARNING
82	AMAN GARG	Manoj Soni	DESIGN AND SIMULATION OF ETHANOL DIRECT INJECTION IN GASOLINE ENGINE.
83	AMAN GUPTA	JI Raheja	PREDICTION OF CERVICAL CANCER USING CLASSIFICATION TECHNIQUES
84	AMAN GUPTA	NV Muralidhar Rao	PREDICTING OUTCOMES AND ECONOMIC ANALYSIS OF FOOTBALL MATCHES AND PERFORMANCE OF PLAYERS.
85	AMAN GUPTA	Poonam Goyal	ACTIVE LEARNING TECHNIQUES FOR IMAGE CLASSIFICATION
86	AMAN MUDGAL	Pawan K Ajmera	BIOMETRIC SYSTEM-PALM PRINT RECOGNITION
87	AMBUJ UPADHYAY	AK Das	EPIGENETICS AND BEHAVIOUR
88	AMIRINENI MOHIT KUMAR	Vinay Chamola	STUDY ON RESEARCH FRONTIERS IN THE INTERNET OF THINGS
89	AMIT AGRAWAL	Sachin U Belgamwar	GRAPHENE REINFORCED NICKEL AND ALUMINIUM MATRIX COMPOSITES: A COMPREHENSIVE STUDY
90	AMIT KUMAR	Anupam Singhal	EIA OF SARDAR SAROVAR DAM.
91	AMIT SHUKLA	Dheerendra Singh	IMPLEMENTATION OF SLIDING MODE CONTROL OF INDUCTION MOTOR DRIVE.
92	AMIT TIWARY	Surekha Bhanot	ATTENTION-BASED EXTRACTION OF STRUCTURED INFORMATION FROM STREET VIEW IMAGERY
93	AMOGH SHARMA	NV Muralidhar Rao	FINANCIAL ANALYSIS AND ALGORITHMIC TRADING USING MACHINE LEARNING
94	AMRIT KOCHAR	Lavika Goel	PLATE TECTONICS BASED OPTIMISATION
95	AMRIT KOCHAR	Ashish Tiwari	DISPERSION ANALYSIS OF FLOW OF NON-NEWTONIAN FLUIDS IN A CYLINDRICAL TUBE
96	AMRITANSHU	Manoj Kumar	ANALYSIS OF SHEAR WALLS WITH OPENINGS.
97	AMRITANSHU JAIN	Srikanta Routroy	BLOCK CHAIN IN SUPPLY CHAIN MANAGEMENT.
98	AMRUTA SHARAD BHARSAKALE	Anil Jindal	NANOPARTICLES IN CLINIC
99	ANANT KUMAR TRIPATHI	Indresh Kumar	AMINE-CATALYZED DIRECT MANNICH-REACTION
100	ANANY MISHRA	Ashutosh Bhatia	STUDY AND COMPARISON OF VARIOUS KEY EXCHANGE MECHANISMS IN VANETS
101	ANCHAL GUPTA	Meghana Tare	EXPLORING THE ROLE OF SEVERAL SIGNALING PATHWAYS IN INDUCING APOPTOSIS.
102	ANIKET AGNIHOTRI	Syamantak Majumder	CURRENT TREATMENT STRATEGIES TO CONTROL TYPE-1 AND TYPE-2 DIABETES
103	ANIRUDH BUVANESH	Sumanta Pasari	APPLICATION OF MATHEMATICS AND INFORMATICS IN MILITARY SCIENCE
104	ANIRUDH GARG	Jyoti	TO INVESTIGATE THE EFFECT OF LEARNING ON CONSUMER PURCHASE BEHAVIOR.
105	ANIRUDH KRISHNA L	Kamlesh Tiwari	ACTIVITY RECOGNITION IN VIDEOS
106	ANIRUDH TANDON	Jitendra S Rathore	SIMULATION OF PLANAR MODE PROPULSION OF FLAGELLA USING COMPUTATIONAL SOFTWARE
107	ANIRUDHA.K	Vandana Agarwal	CLASSIFICATION OF EEG DATA USING DEEP LEARNING TECHNIQUES
108	ANKIT AGARWAL	Pankaj Kumar Sharma	NATURE V/S NURTURE DEBATE
109	ANKIT PANDEY	Jitendra S Rathore	MODELLING OF SKIN FRICTIONAL BEHAVIOUR WITH VARIOUS CONTACTING MATERIALS USING ANSYS/ABAQUS.

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S. No.	Name of Student	Faculty Name	Project Title
110	ANKIT RAJ	Pratyush Banerjee	CONTENT WRITING AND MARKETING
111	ANKITA KUMARI	Kumar S Bhattacharya	UNDERSTANDING AND EXPLORING KASHMIR THROUGH ITS WRITINGS
112	ANNIE RAWAT	Atanendu Sekhar Mandal	AI BASED COMPUTE CURE FOR CANCER
113	ANOOPAM MISHRA	Shan Balasubramaniam	FORMAL SPECIFICATION OF SOFTWARE DEFINED NETWORK AND VERIFICATION OF THEIR PROPERTIES
114	ANSHU AGRAWAL	Paritosh Shukla	A STUDY OF RECENT DEVELOPMENTS IN COMPOSITE MATERIALS BASED ON NATURAL INGREDIENTS
115	ANSHUL JAIN	Praveen Kumar A V	HIGHER ORDER MODE ANTENNA DESIGN
116	Anshuman Raj	Sailaja Nandigama	DYNAMICS OF CLIMATE CHANGE MITIGATION AND ADAPTATION IN THE INDIAN CONTEXT WITH A SPECIFIC FOCUS ON SUSTAINABILITY ISSUES.
117	ANUBHAV BANSAL	Rajiv Kumar	HAMILTONIAN CYCLES IN PLANAR GRAPHS AND PLANAR DRAWINGS
118	ANUBHAV SACHAN	Sainath Bitragunta	ENERGY EFFICIENT AND DELAY CONSTRAINED COGNITIVE RADIO NETWORK DESIGN AND ANALYSIS
119	ANUBROLU VASUDEV	Shibasish Chowdhury	PREDICTION OF MIRNA-MRNA INTERACTION THROUGH MACHINE LEARNING APPROACH WITH DIFFERENT DATA STRUCTURES AND FEATURE EXTRACTION.
120	ANUKRITI GUPTA	Jahagirdar Ankush Chandrakant	TIME FREQUENCY ANALYSIS OF BEARING SIGNALS
121	ANUPAM AGGARWAL	Vinay Chamola	PHYSICALLY UNCLONABLE FUNCTION IMPLEMENTATION
122	ANURADHA BANSAL	Devendra Kumar	NUMERICAL SOLUTIONS OF FRACTIONAL ORDER IVPs/BVPS
123	ANUSATYA CHOUDHARY	Prashant U Manohar	TO STUDY THE THEORETICAL AND PRACTICAL ASPECTS OF MOLECULAR DYNAMICS
124	ANUSHKA GHOSH	Somdatta Bhattacharya	ROLE OF SOCIAL MEDIA IN PROTESTING AGAINST SEXUAL ABUSE
125	ANUVIND BHAT	Shan Balasubramaniam	PARALLEL DATA STRUCTURES AND ALGORITHMS FOR APPLICATION IN MACHINE LEARNING
126	APARNA M	Sainath Bitragunta	SIMULTANEOUS POWER AND DATA TRANSFER IN ENERGY HARVESTING COOPERATIVE SYSTEM.
127	APOORV SINGH	Rajneesh Kumar	DEVELOPMENT OF INTELLECTUAL ENERGY CONCEPT FOR AI TRAINING.
128	APOORVA	Hari Om Bansal	ENERGY OPTIMIZATION IN PLUG-IN HYBRID ELECTRIC VEHICLES USING ULTRA-CAPACITORS
129	APURVA CHAUDHARY	Ajay Kumar Pani	STUDY AND APPLICATION OF GENETIC ALGORITHM
130	ARADHYA KHANDELWAL	Satyam Srivastav	AN ON-TREE FRUIT QUALITY INSPECTION SYSTEM USING DEEP NEURAL NETWORKS
131	ARDRA AYYAPPATH	Anil Rai	FOLK MUSICAL FORMS OF KERALA
132	ARDRA AYYAPPATH	Dheerendra Singh	COMPARATIVE STUDY OF ADAPTIVE CONTROL TECHNIQUES, SMC AND RCA
133	ARJUN KUMAR CHOUDHARY	Ravi Saini	ENHANCING RESOLUTION OF PANORMIC IMAGES USING SUPER RESOLUTION
134	ARJUN MAHENDRU	Archana K K	MALARIA AND RECENT ADVANCEMENTS IN ITS TREATMENT
135	ARJUN TYAGI	Rajesh Kumar	HIERARCHICAL MATRICES AND ITS APPLICATIONS.
136	ARNAB KUMAR PANDA	Srikanta Routroy	STUDY AND DEVELOP THE PRODUCT DIFFUSION MODEL FOR ESTIMATING THE E-PRODUCTS
137	ARNAV ANAND	Ashish Patel	STUDY ON WIND GENERATION INTEGRATION IN POWER DISTRIBUTION SYSTEM.
138	ARNAV GUPTA	Shamsher B Singh	ANALYSIS & DESIGN OF FRP REINFORCED CONCRETE STRUCTURES
139	ARNAV SETHI	Shilpi Garg	STUDY OF MALARIA VACCINES WITH SPECIAL EMPHASIS ON RTS AND ITS ADJUVANTS
140	ARPIT AGARWAL	Manoj Kannan	BIOLOGICALLY-INSPIRED SYSTEMS IN ENGINEERING.
141	ARPIT MOHANTY	NV Muralidhar Rao	AN ECONOMETRIC ANALYSIS OF RELATIONSHIP BETWEEN INTERNATIONAL TRADE AND ECONOMIC GROWTH IN INDIA.
142	ARPITA BHADRESH SHAH	Bhanu Vardhan Reddy	MODELS FOR PREDICTING MIXED MATRIX MEMBRANE PERFORMANCE
143	ARTIK GUPTA	Ajit Pratap Singh	SUSTAINABLE WATER RESOURCES MANAGEMENT IN

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S. No.	Name of Student	Faculty Name	Project Title
			CONTEXT TO RAJASTHAN
144	ARUSHI MADAN	NV Muralidhar Rao	EXPLORATORY STUDY ON ARTIFICIAL INTELLIGENCE AND ECONOMIC GROWTH
145	ARUSHI MADAN	NV Muralidhar Rao	EXTREME VALUE ANALYSIS OF MAJOR STOCK INDICES
146	ARVETI SHIVA UMA MADHUR	K Hari Babu	STATISTICAL COLLECTION OF DATA IN HYBRID SDN
147	ARVIND SAHU	Manoj Kumar	DETERMINATION OF DESIGN MOMENTS IN INTERIOR SLAB PANEL OF T-BEAM BRIDGE
148	ARYAN A PAREEK	AK Das	EPIGENETICS IN MALARIA
149	ASAD HUSAIN	Girish Kant	DEVELOPEMENT OF ISM FOR ENHANCING BUYER SUPPLIER RELATIONSHIP
150	ASHISH GUPTA	Ravi Kant Mittal	GEO-TECHNICAL APPLICATION OF COPPER TAILING
151	ASHISH KUMAR	Sumanta Pasari	STUDY OF SCENARIO(HYPOTHETICAL) EARTHQUAKE HAZARDS BASED ON DIRECTIONAL EFFECT OF STRONG GROUND MOTION.
152	ASHUTOSH GOEL	K Solomon Raju	DESIGN OF TOOL CHAIN/ PACKAGE FOR SHM APPLICATION
153	ASHUTOSH SAHOO	Smita Raghuvanshi	BIOFILTRATION OF FLUE GASES FROM PROCESS INDUSTRIES
154	ASHUTOSH SANCHETI	Vinay Chamola	FOG COMPUTING FOR INTERNET OF THINGS
155	ASHWAR GUPTA	Amit Jain	COMPARATIVE STUDY ON BIOSURFACTANT PRODUCED THROUGH DIFFERENT MICROBES AND THEIR RESPECTIVE APPLICATION.
156	ASIM PATNAIK	Rajneesh Kumar	MICROECONOMIC STUDY AND SOCIAL IMPACT OF SOLAR ENERGY PLANTS IN INDIA
157	ASWIN ANILKUMAR	Kumar S Bhattacharya	LITERATURE AS TESTIMONIAL FROM CONFLICT ZONES: READING BANGLADESHI MINORITY WRITINGS
158	ASWIN ANILKUMAR	Kuldip Singh Sangwan	"A STUDY OF THE LATEST TRENDS IN THE AUTOMOTIVE SECTOR, WITH A FOCUS ON IMPROVING PRODUCTIVITY AND EFFICIENCY"
159	ATHARVA TANDON	Rajesh Mehrotra	REGULATION OF CIS-ELEMENTS IN DROUGHT STRESS PLANTS.
160	ATUL KUMAR	Prateek Kala	DEVELOPING CLOSED LOOP CONTROL SYSTEM FOR AUTOMATING SUPER FINISHING OF FREE FORM SURFACE.
161	AVEEPSHITO MITRA	Vishal Gupta	STUDY OF RESEARCH PAPERS AND SOLUTION IMPLEMENTATION IN SOFTWARE DEFINED NETWORKS (SDN)
162	AVILEKH CHAUHAN	Rakesh Choubisa	CHAOTIC DYNAMICS IN CHEMICAL REACTIONS
163	AVIRAL AGRAWAL	Dhiraj Sangwan	FULLY CONVOLUTIONAL NETWORKS FOR ACTION RECOGNITION
164	AVISH KHOSLA	Rajesh Mehrotra	REGULATION OF CIS ELEMENTS IN DROUGHT STRESSED PLANTS
165	AWANEESH SHUKLA	Devika	EVOLUTION OF ENGLISH POETRY IN INDIA
166	AYAN DUTTA	Kavindra Kandpal	MAGNETOSTRICTIVE MATERIALS FOR MICRO ELECTRO MECHANICAL SYSTEMS (MEMS) APPLICATIONS
167	AYAN GUPTA	Tapomoy G Sarkar	EVOLUTION OF STARS
168	AYUSH BISWAS	Rajesh Kumar	BENDING ANALYSIS OF GRAPHENE SHEET.
169	AYUSH KUMAR BOTHRA	Amritansh Bhanot (RS)	EVOLUTIONARY PERSPECTIVES OF CANCER
170	Ayushi Agrawal	NV Muralidhar Rao	GENDER DISPARITY IN EDUCATION BETWEEN DEVELOPING AND DEVELOPED COUNTRIES-A STUDY
171	AYUSHMAN DWIVEDI	Jitendra S Rathore	PLANAR WAVE PROPAGATION THROUGH A TAPERED FLAGELLATED NANOSWIMMER.
172	AYUSHMAN DWIVEDI	Prabhat Nath Jha	BIOLOGICAL EXPLORATIONS OF THE MOTION OF FLAGELLATED TAPERED NANA-ORGANISMS
173	B TIRUMALA	Nirankush Dutta	ANALYSIS OF SOCIAL MEDIA MARKETING STRATEGY OF APPLE IPHONES IN MOBILE PHONE INDUSTRY
174	BAJAJ SATYAJEET LAXMIKANT	Abhijit K Digalwar	APPLICATION OF FRUGAL ENGINEERING IN ELECTRICAL VEHICLES FOR ENERGY EFFICIENCY
175	BALARAJU NITIN SIDDHARTH	Rajesh Kumar	STABILITY OF COLUMNS: CHANNEL SECTIONS AND DOUBLY SYMMETRIC SECTIONS
176	BARSODE ANKUR NARENDRA	D Bandyopadhyay	STUDY OF SHELLFILL MODEL IN AL8SB6 DOPED WITH TRANSITION METALS (TI, ZR, HF)
177	BARTANWALA	Gaurav Purohit	STUDY OF PREDICTION ALGORITHMS IN NON-

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S. No.	Name of Student	Faculty Name	Project Title
	MUSTANSIR AZIZ		STATIONARY LEARNING MODELS FOR AIR QUALITY MONITORING
178	BHANDARKAR AISHWARY SHAILESH	Harshavardhan S	LICENSE PLATE RECOGNITION SYSTEM USING NEURAL NETWORKS
179	BHANSALI ABHINAV ARVIND	J N Bandopadhyay	STUDYING AND ANALYZING THE RECENT TRENDS IN QUANTUM COMPUTING AND ITS PHYSICAL REALIZABILITY.
180	BHAVANAM SRAVAN KUMAR REDDY	Sanjay Singh	HUMAN ACTIVITY RECOGNITION IN INDUSTRIAL ENVIRONMENT USING UNSUPERVISED LEARNING
181	BHAWANA JAIN	Rajdeep Chowdhury	ROLE OF AUTOPHAGY IN BRAIN CANCER
182	BHAWINI AGARWAL	Jyoti	STUDY OF CUSTOMER RELATIONSHIP MANAGEMENT IN MNCs.
183	BISWAJIT BISWAS	Niladri Sarkar	ANALYSIS OF INDUS VALLEY SCRIPTS USING MARKOV CHAIN METHOD.
184	BOLLA RESHMA	Rajneesh Choubisa	ASSESSING APPROPRIATE BUSINESS STRATEGIES FOR ORGANISATIONAL EMINENCE
185	CHAITANYA MAHESHWARI	Jl Raheja	DRUG ABUSE ENSEMBLE CLASSIFIER
186	CHARU JAIN	Ravi Saini	PARTIAL LEAST SQUARE CLASSIFIER FOR MULTICLASS AND ONE CLASS CLASSIFICATION ON DATA FOR MICRORNA AND MRNA BINDING.
187	CHARUL PASSEY	Rajan Pandey	MISBEHAVIOR AND ROLE OF PSYCHOLOGY IN FINANCIAL DECISION-MAKING - INDIAN CONTEXT
188	CHAVANA PRANEETHA	Rajneesh Choubisa	ANTECEDENTS AND CONSEQUENCES OF INTELLIGENCE ON THE SPECTRUM OF PSYCHOPATHOLOGY
189	CHILUKURI RAJA VENKATA MANIKANTA VIHARI	Kamlesh Kumar	SOIL MECHANICS FOR CIVIL ENGINEERS
190	CHINTA KARTEEKA NAIDU	Girish Kant	PREDICTIVE MODELING FOR TURNING OPERATIONS.
191	CHINTHA AKASH	Abhijit R Asati	STUDY OF SIGNAL PROCESSING TECHNIQUES IN MACHINE LEARNING
192	CHIRAG GUPTA	Abhijit K Digalwar	APPLICATION OF FLEXIM IN LEAN MANUFACTURING
193	CHIRAG PATHAK	P Srinivasan	SPACE RADIATION: FIN MASS OPTIMIZATION
194	CHIRANJEEVI.V	Kuldip Singh Sangwan	STUDY OF EFFECTS OF MACHINING PARAMETERS(AND THEIR CORRELATION) ON SURFACE ROUGHNESS DURING MACHINING.
195	DABRE TANMAY SANJAY	Girish Kant	BLOCK CHAIN IN SUPPLY CHAIN MANAGEMENT.
196	DACHEPALLY SAKETH KUMAR	Tufan Chandra Bera	MANUFACTURING OF A THIN WALLED PART USING A CAM SOFTWARE
197	DAKSHESH MEHTA	Ashutosh Bhatia	TO STUDY REAL TIME ADAPTIVE TRAFFIC CONTROL SYSTEMS USING VARIOUS MODELS.
198	DALIA SAGAR ASHOK	Pushp Lata	STUDY ON DEVELOPMENT OF CROSS CULTURAL COMPETENCY AMONG STUDENTS UNDER THE INFLUENCE OF SOCIAL MEDIA.
199	DANISH NAYYAR	Rajesh Mehrotra	ANALYSIS OF CIS ELEMENTS IN PLANT GENOMES
200	DARSHAN NANDASANA	Ravi Kant Mittal	IMPROVING MARGINAL SOILS USING WASTE TIRE CHIPS.
201	DEBOLINA CHAKRABARTY	Bhagavatula Vani	APPLICATION OF NANOTECHNOLOGY FOR WASTEWATER TREATMENT
202	DEBSHANKAR GHOSH	Banasri Roy	INVESTIGATION OF PROTEIN ADSORPTION AND DESORPTION ON BIOMATERIALS
203	DEEPAK GUNEJA	NV Muralidhar Rao	FINANCIAL ANALYSIS AND ALGORITHMIC TRADING USING MACHINE LEARNING
204	DEEPAK JOSHI	Aniruddha Roy	T CELL ENGINEERING:A PROMISING STRATEGY FOR THE FIGHT AGAINST CANCER
205	DEEPAK VASUDEVAN	Tapomoy G Sarkar	BARYONIC ACOUSTIC OSCILLATIONS
206	DEEPANSHU AGGARWAL	AK Das	EXOSOMES AND DISEASES
207	DEORE KETAN RAVINDRASINGH	Gajendra S Chauhan	INCREASING AD VIEWABILITY AND STUDYING THE EFFECTIVENESS OF MEASURES TAKEN TO IMPROVE THE CONVERSION RATES.
208	DESHMUKH MIHIR SANJAY	Bhagavatula Vani	STUDYING HEAT SHOCK RESPONSE OF CYANOBACTERIA AN ANGIOSPERMS.
209	DEVANG FALOR	Shyam Sundar Yadav	NUMERICAL SIMULATIONS OF COMPRESSIBLE TWO PHASE FLOWS WITH PHASE CHANGE



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S. No.	Name of Student	Faculty Name	Project Title
210	DEVANSH CHAUDHARY	Jyoti	ANALYSIS OF THE GROWTH OF LABS (R&D DIVISIONS) IN EARLY STAGE STARTUPS AND PROPOSING A FINANCIAL MODEL FOR THE SUSTENANCE OF SUCH DIVISIONS
211	DEVANSH CHAUDHARY	Srikanta Routroy	STUDY AND DEVELOP THE ADVANCED NON-LINEAR MODEL FOR ESTIMATING THE E-WASTE
212	DEVANSH GHATAK	Dhiraj Sangwan	OBJECT DETECTION IN AERIAL IMAGES USING CNN
213	DHAIVATA UTKARSH PANDYA	Avinash Gautam	DYNAMIC TASK ALLOCATION FOR EFFICIENT MULTI-ROBOT COORDINATION
214	DHALIWAL TANYARAJ GURUSAHIB SINGH	Kuldip Singh Sangwan	RELATIONSHIP BETWEEN LEAN AND GREEN MANUFACTURING
215	DHEERAJ BHATIA	Anshuman	ANALYSIS OF HIGH-RISE BUILDINGS UNDER HORIZONTAL FORCES.
216	Diksha Kumari	Sushila Shekhawat	REPRESENTATION OF WOMEN IN INDIA: A CASE STUDY OF BOLLYWOOD
217	DISHA JAIN	Bibhas Ranjan Sarkar	STUDY OF CHEMICALS FROM RENEWABLE RESOURCES
218	DIVAKAR VERMA	Virendra Singh Nirban	STUDY OF XML AND USE OF DATA PARSING TECHNIQUES TO EXTRACT MOVIE SUBTITLES
219	DIVITA GUPTA	Vishal Saxena	MOLECULAR MARKERS IN CANCER
220	DIVITA GUPTA	Girish Kant	SELECTION OF MACHINING PARAMETERS FOR TURNING TO REDUCE SURFACE ROUGHNESS.
221	Divya Pant	Rakesh Choubisa	X-RAY DIFFRACTION SPECTROSCOPY AND ITS APPLICATIONS
222	DIVYAM RAKESH	AK Das	PLASMODIUM LIVER STAGE ANTIGENS AND THEIR ROLE IN THE PARASITE LIFE CYCLE.
223	DIVYANSH GOEL	Kumar S Bhattacharya	UNDERSTANDING AND EXPLORING KASHMIR THROUGH ITS WRITINGS
224	DIVYANSH GUPTA	Mayuri Digalwar	DESIGN AND IMPLEMENTATION OF REAL TIME SCHEDULER IN OPERATING SYSTEM
225	DIVYANSH GUPTA	Arun Kumar	SERVICE QUALITY INFLUENCE ON CONSUMER PERCEPTIONS-A REVIEW OF LITERATURE
226	DIVYANSH MAKKAR	Ajay Kumar Pani	STUDY AND PREDICTING THE AIR QUALITY USING NEURAL NETWORK AND DATA ANALYTICS
227	DIVYANSH MALHOTRA	Sangita Yadav	CRITICAL ANALYSIS OF ENERGY CONSUMPTION IN METAL CUTTING OPERATIONS USING FINITE DIFFERENCE METHOD
228	DIVYANSH MALHOTRA	Satyendra Kr Sharma	INVENTORY OPTIMIZATION
229	DIVYANSH PAHARIA	Gautam Singhvi	CRITICAL ANALYSIS OF POLICIES RELATED TO ESSENTIAL AND GENERIC MEDICINES AND UNDERSTANDING PRICING MODEL
230	DIVYANSHU BANSAL	Dipendu Bhunia	STRAW BALE IN THE CONSTRUCTION OF BUILDINGS AND ITS FUTURE IN INDIA.
231	DOMALE ROHAN VAIJNATH	AK Das	UNDERSTANDING GENOME EDITING.
232	DRIHOPON BARUAH	Murali M Pandey	STUDY OF POLYMERIC MATERIALS USED IN LBL ASSEMBLY
233	DURJAI SETHI	Sailaja Nandigama	FOOD FORTIFICATION IN INDIA (POST INDEPENDENCE ERA)
234	EKANSH JAIN	Hitesh Dutt Mathur	FEASIBILITY OF ELECTRICAL VEHICLES FROM INDIAN PERSPECTIVE
235	EKMUN SINGH GULATI	Sangeeta Sharma	ANALYSIS OF SOCIAL MEDIA ADVERTISING
236	FULADI SAKSHI RAJESH	Nirankush Dutta	ANALYSIS OF SOCIAL MEDIA MARKETING STRATEGY OF APPLE IPHONES IN MOBILE PHONE INDUSTRY
237	G ADITYAN	Jitendra Panwar	MECHANISTIC ASPECTS OF FORMATION OF DANDRUFF
238	G SHREYAS	Amit Jain	BIO SURFACTANT PRODUCTION AND APPLICATIONS
239	GANDU GNANA PRAVEEN	Jai Gopal Pandey	EDGE COMPUTING
240	GAONKAR SAUMIL SHAMSUNDER	Satyendra Kr Sharma	TRANSPORTATION COST OPTIMIZATION FOR SUPPLY CHAIN INVENTORY
241	GARIMA KHANDELWAL	Sachin U Belgamwar	SHAPE MEMORY POLYMERS
242	GAURANG BANSAL	Poonam Goyal	FEATURE EXTRACTION FOR IMAGES
243	GAURAV AGRAWAL	Ajay Kumar Pani	STUDY AND APPLICATION OF GENETIC ALGORITHM
244	GAURAV BHANDARI	Vishal Saxena	STUDY ON MEDICAL DIALYSIS TECHNIQUE.
245	GAURAV SHARMA	HK Mohanta	PREPARATION OF ORGANIC FERTILIZERS AND PESTICIDES FROM COW PRODUCTS.

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S. No.	Name of Student	Faculty Name	Project Title
246	GAUTAM PATHAK	J L Raheja	TUMOR DETECTION USING HYPERSPECTRAL IMAGING.
247	GOKUL SRINIVASAN	Pawan K Ajmera	SPECTRAL MODEL SYNTHESIS OF SITAR SOUND
248	GOPESH KUMAR SINGH	Jitendra S Rathore	STUDY OF A VIBRATING BEAM IN FLUID FLOW AND SEE THE INFLUENCE OF CHANGES IN CROSS SECTION ON DRAG AND LIFT.
249	GOVIND BANSAL	Gautam Singhvi	ADVANCEMENT IN SOLID DOSAGE FORMS
250	GOVIND MITTAL	Vishal Gupta	IMPROVISING SECURITY FRAMEWORK OF SOFTWARE-DEFINED NETWORKS
251	GUPTA ADITYA AJAY	Navneet Gupta	STUDY ON THE IMPACT OF DIELECTRICS AND OXIDE THICKNESS ON THE PERFORMANCE OF CNT FETS
252	HAROON KHAN	Suresh Gupta	APPLICATION OF BIG DATA ANALYTICS IN CHEMICAL ENGINEERING
253	HARSH BANSAL	Dhiraj Sangwan	OBJECT DETECTION IN AERIAL IMAGES USING CNN
254	HARSH NIJHAWAN	Rajan Pandey	STOCK MARKET ANALYSIS AND FORECAST
255	HARSH NIJHAWAN	Rajneesh Choubisa	INTERCONNECTION BETWEEN OUR HEALTH AND PSYCHOLOGY
256	HARSHIT GOYAL	Navneet Goyal	TOPOLOGICAL DATA ANALYSIS AND ITS APPLICATIONS
257	HARSHIT GUPTA	Ravi Kant Mittal	APPLICATION OF WASTE TIRE DERIVED GEOMATERIAL IN CIVIL ENGINEERING
258	HARSHIT GUPTA	Rakhee	A STUDY ON RESOURCE ALLOCATION SCHEMES FOR LTE NETWORK.
259	HARSHIT UPADHYAY	Ravi Kant Mittal	BEHAVIOR OF RANDOMLY DISTRIBUTED FIBER REINFORCED SOIL
260	HARSHOMAN SINHA	AK Sarkar	PLANNING AND DESIGN OF RAPID TRANSIT SYSTEMS IN DEVELOPING INDIAN CITIES.
261	HEMANT KUMAR	Sangita Yadav	PARALLEL AND DISTRIBUTED NUMERICAL COMPUTATIONS.
262	HIMANGSHU BAID	Jl Raheja	TEXT DETECTION AND RECOGNITION OF CHARACTERS USING MACHINE LEARNING
263	HIMANSHU	Sunita Raina	EDUCATION IN A POST-MODERN SOCIETY.
264	HIMANSHU MENDIRATTA	Ashish Patel	PREDICTION OF CERVICAL CANCER USING CLASSIFICATION TECHNIQUES
265	HITESH SAGTANI	Gaurav Purohit	STUDY OF MLP FOR ANOMALY DETECTION IN COMPARISON TO SPATIAL ALGORITHMS FOR AIR QUALITY MONITORING
266	HRIDYANSHU SHAKTAWAT	Manoj Kumar	A STUDY ON EFFECTIVE WIDTH OF VEHICULAR LIVE LOAD ON BRIDGE DECKS
267	HRITHIK ADHIKARI	Amol Holkundkar	ANALYSIS OF QUANTUM ALGORITHMS AND ERROR CORRECTION.
268	I.SIDDARTHA	Srikanta Routroy	UNDERSTANDING REVERSE LOGISTIC SYSTEMS OF INDUSTRIES IN INDIA
269	INDRANEEL GHOSH	Syamantak Majumder	EPIGENETICS OF ENDOTHELIAL DYSFUNCTION DURING DIABETES INDUCED CARDIOVASCULAR DISEASES
270	INDUKURI SAI APPALA RAJU	K P Venkatesh	INFLUENCE OF ADHESION ON DYNAMICS OF DROPLETS
271	IPPILI SAI PRASAD	Tufan Chandra Bera	MANUFACTURING OF A THIN-WALLED PART USING A CAM SOFTWARE
272	ISHAAN GHOSH		STUDY ON HIGH Q FACTOR VARIABLE CAPACITORS AND INDUCTORS IN MEMS TECHNOLOGY
273	ISHAN BHANUKA	Ashutosh Bhatia	DEVELOPMENT OF SIMULATION FRAMEWORK FOR VANET IN MININET
274	J.PRAVEEN	Keyur Joshi	DEVELOPING MATERIAL NON LINEARITY CAPABILITY IN FINITE ELEMENT FRAMEWORK.
275	JADE VAIBHAV SANJAY	Sumeet Saurav	SIGNATURE VERIFICATION USING DEEP-LEARNING
276	JAHNAVI MRUGESH GANDHI	Abhijit R Asati	DETECTION OF GLAUCOMA FROM RETINAL IMAGES USING IMAGE PROCESSING TECHNIQUES
277	JAIRAJ PARUTHY	P Srinivasan	CREEP ANALYSIS OF BOILER TUBES AS WELL AS STRESS ANALYSIS DUE TO ABRASIVES
278	JAMI HARSHITH	B.A. Botre	TO STUDY DATA ANALYTIC TECHNIQUES FOR ADDRESSING CHALLENGES IN SMART WATER TREATMENT PLANT
279	JAMMULA PRIYESH	Geetilaxmi Mohapatra	LINKAGE BETWEEN TEMPERATURE AND ECONOMIC GROWTH, CO2 EMISSIONS
280	JASPREET KAUR PAWA	Rajdeep Chowdhury	AUTOPHAGY IN NEURONAL DISEASES

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S. No.	Name of Student	Faculty Name	Project Title
281	JATIN ARORA	Amritansh Bhanot (RS)	NEW GENERATION OF THERAPY(IES) WITH THE HELP OF STEM CELLS.
282	JAUNTY SINGH	Gautam Singhvi	3-D PRINTING IN PHARMACEUTICAL DOSAGE FORM.
283	JAY GOYAL	Varun Sharma	ANALYSIS OF VORTEX GENERATOR FOR FORMULA CARS
284	JAYANT AGARWAL	Gajendra S Chauhan	BRANDING OF A NATION-WHAT NEEDS TO BE DONE.
285	JAYESH NARAYAN	Amritansh Bhanot (RS)	STUDY OF MITOCHONDRIAL DYNAMICS IN PARKINSONS DISEASE
286	JAYESH SANJAY MASAND	Arun Kumar Vaish	GARCH MODEL AND THE FINANCIAL CRISIS 2008: A STUDY OF THE INDIAN STOCK MARKET.
287	JAYESH SANJAY MASAND	Kuldip Singh Sangwan	DEVELOPMENT OF ISM MODEL FOR GREEN SUPPLY CHAIN MANAGEMENT: PRESSURES, PRACTICES & PERFORMANCE MEASURES
288	JITVAN HIMANSHU SHUKLA	Dhiraj	VISUAL QUESTION ANSWERING (VQA) BASED IMAGE CONTENT ANALYSIS USING MACHINE LEARNING TECHNIQUES
289	JOSHI JAYSHIL KAMLESH	Harshavardhan S	A ROBUST AUTOMATIC OBJECT SEGMENTATION METHOD FOR 3D PRINTING
290	JOY VRAJESH PARIKH	Surekha Bhanot	REINFORCEMENT LEARNING MODELS AND RNN/CNN IN MUSIC GENERATION.
291	Jyoti Vishnoi	Dhiraj Sangwan	OBJECT IDENTIFICATION AND RECOGNITION USING VARIOUS MACHINE LEARNING TECHNIQUES.
292	JYOTISHMAAN TRIPATHI	Rakhee	STUDY OF MARKOV DECISION PROCESS
293	K SAI CHAKRADHAR REDDY	Shan Balasubramaniam	PARALLELIZING HIERARCHICAL CLUSTERING ALGORITHMS
294	KAMAL KUMAR JOSHI	K K Gupta	STUDY OF WATER QUALITY INDEX MODELLING.
295	KAMESH KUMAR SAINI		A STUDY ON MODELLING OF OXYGEN PERMEATION THROUGH POLYMER NANOCOMPOSITE FILMS
296	KANAV PURI	Smita Raghuvanshi	ESTIMATION OF EMISSION FACTORS FROM VARIOUS DATA SETS AVAILABLE IN LITERATURE OR OTHER SOURCES/ BODIES.
297	KANISHK SAXENA	Anupam Singhal	BIOKINETIC ANALYSIS OF TERTIARY TERTIARY TREATMENT IN WASTEWATER TREATMENT PLANT
298	KANISHQ	Anshuman	EFFECT OF FIBERS ON MECHANICAL PROPERTIES OF GEOPOLYMER CONCRETE
299	KANNAN.A	S Murugesan	STUDY OF HIV AND INFLUENZA VIRUS AND ITS CONTROL
300	KANUPRIYA SACHDEVA	Atish T R Paul	STUDY ON DIFFERENT OBESITY MODELS IN MICE
301	KAPADIA DARSHIL CHITAL	Navneet Goyal	PARALLELIZATION OF GRAPH CLUSTERING ALGORITHMS.
302	KAPIL AGRAWAL		RF MEMS TECHNOLOGY BASED PHASE SHIFTER.
303	KAPIL SHARMA	Rahul Singhal	INFRARED COMMUNICATION IN FREE SPACE
304	KARABEE BATTA	Navneet Goyal	FUZZY QUERIES AND THEIR APPLICATIONS IN MULTIMEDIA RETRIEVAL
305	KARAN ARORA	P Srinivasan	ANALYSIS OF THERMAL HYDRO BEHAVIOR OF FAST BREEDER REACTOR CORE AFTER SHUTDOWN AND SAFETY MEASURES
306	KARAN JAIN	Subhashish Gangopadhyay	CARBON NANOSTRUCTURES
307	KARTIK AGGARWAL	M S Dasgupta	STUDY AND DEVELOP THE ADVANCED NON-LINEAR MODEL FOR ESTIMATING THE E-WASTE
308	KARTIKEYA KHATRI	Girish Kant	OPTIMIZATION OF ENERGY CONSUMPTION IN MACHINING PROCESSES.
309	KARVE ANIRUDDHA GIRISH	Kumar Neeraj Sachdev	ETHICAL,SOCIAL AND PSYCHOLOGICAL ASPECTS OF ADVERTISING
310	KAVISH BATHIJA	Arya Kumar	STUDY OF OPERATIONAL RISKS IN BANKING INDUSTRY AND ITS ROLE IN THE FINANCIAL CRISIS OF 2008.
311	KAVYA GUPTA	Rajeev Taliyan	THE STUDY OF EPIGENETIC MECHANISM IN LIVER CIRRHOSIS AND LIVER CANCER.
312	KEERTI P	Srikanta Routroy	STUDY THE VARIOUS ISSUES OF AGRICULTURAL SUPPLY CHAIN ISSUES IN INDIA
313	Keshav Rai	Sanjay Singh	SIGNATURE VERIFICATION AND SIGNAL RECOGNITION USING MACHINE LEARNING.
314	KESHAV SINGH	Sunil Kumar Dubey	PHARMACOKINETICS-PHARMACODYNAMICS MODELLING AND SIMULATION FOR ANTIDIBETIC DRUGS

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S. No.	Name of Student	Faculty Name	Project Title
315	KHANDELWAL RASHI SANJAY	Uma S Dubey	BIOINFORMATIC ANALYSIS OF MILK PROTEINS AND THEIR INTERACTION WITH LIGANDS.
316	KHUSHBOO KOHLI	S Gurunaryanan	PROCESSOR DESIGN - FLOATING-POINT ALU
317	KISLAYA KUMAR	Bharti Khungar	CHITOSAN BASED CATALYSIS AND ITS APPLICATIONS
318	KONDAPI S SANJAY SRIVASTAV	Sanjay Singh	HUMAN ACTIVITY DETECTION USING UNSUPERVISED TECHNIQUES IN INDUSTRIAL ENVIRONMENT
319	KOPPICHETTI SAI KIRAN	Rajeev Taliyan	ROLE OF AUTOPHAGY AND ITS MECHANISM IN PATHOGENESIS OF CANCER.
320	KOTLA SATYA KRISHNA	Sachin U Belgamwar	E - TRICYCLE
321	KRITI KHANDELWAL	Amit Jain	STUDY THE THERMAL TREATMENT OF WASTEWATER FROM DIFFERENT INDUSTRIES AND SUGGEST METHODS FOR ENHANCEMENT OF ENERGY RECOVERY
322	KRITI KUKREJA	Kavindra Kandpal	STUDY OF PIEZO ELECTRIC MATERIAL FOR FINDING OPTIMAL MATERIAL FOR USAGE.
323	KSHITIJ CHANDAK	Kamlesh Kumar	BRICK MASONRY CONSTRUCTION
324	KULKARNI ADITYA YOGESH	NV Muralidhar Rao	ASSESSING THE ECONOMIC IMPACT OF IMPLEMENTING BLOCKCHAIN TECHNOLOGY IN INDIA
325	KUMAR ANANT RAJ	Jitender Kumar	A STUDY OF ENHANCED POWER GRAPHS AND ITS SUBGRAPHS ON GROUPS.
326	KUMAR DEOVRATA	Rajesh Mehrotra	STUDY OF LTRE CIS ELEMENT PRESENT IN PROMOTER FOR ABIOTIC STRESS TOLERANCE IN PLANTS
327	KUMAR SATVIK ADARSH PRAWEEEN	Tufan Chandra Bera	TO INTERPOLATE POINTS OVER AN OFFSET CURVE USING MATLAB.
328	KUNAL JAIN	Ashutosh Bhatia	INFORMATION GATHERING OF MOBILE USERS THROUGH ENCRYPTED NETWORK TRAFFIC ANALYSIS
329	KUPPA SAI SASHANK	Jayashree Mahesh	IMPACT OF ORGANISATIONAL STRUCTURE ON MILLENIAL BEHAVIOR
330	KUSH KANWAR	Abhijit K Digalwar	IMPLEMENTATION OF LEAN PRACTICES IN THE TERTIARY SECTOR
331	KUSHAGRA AGGARWAL	Niladri Sarkar	STUDY OF NANO-SCALE PHOTONIC DEVICES.
332	KUSHAGRA JAIN	Sundaresan Raman	BRAIN IMAGE SEGMENTATION FOR DIFFERENT DISEASES.
333	KUSHAL SHARAN	Abhijit K Digalwar	APPLICATION OF FLEXSIM IN LEAN MANUFACTURING
334	LADDHA SIDDHANT SANJAY	Devesh Samaiya	DEVELOPMENT AND DOCUMENTATION OF PERIPHERAL LIBRARIES IN C FOR STM8 MICROCONTROLLERS.
335	LAKHAN BANGAR	Girish Kant	BULLWHIP EFFECT
336	LAKSHAY SETHI	Manoj Soni	SOLAR BIOMASS HYBRID SYSTEM
337	LAKSHITA BHARGAVA	Atish T R Paul	LINKAGE BETWEEN THYROID GLAND AND OBESITY
338	LAKSHYA GARG	Bijoy Kumar Raut	PATH PLANNING IN A DYNAMIC ENVIRONMENT.
339	LIKHIT TEJA VALAVALA	Kari Babu Ravi Teja	CMOS DIGITAL IC DESIGN THROUGH ARTIFICIAL INTELLIGENCE.
340	LINU P SAJI	Jyoti	STUDY OF CUSTOMER RELATIONSHIP MANAGEMENT IN MNC
341	LOHIT GUPTA	Abhishek Mishra	TASK SCHEDULING OPTIMIZATION
342	M AVADESH	Kuldip Singh Sangwan	DESIGNING A FRAMEWORK TO OPTIMIZE A REVERSE LOGISTIC NETWORK
343	M. Ashwin	Tanu Shukla	STUDENT PSYCHOLOGY ABOUT THE CHOICE OF DISCIPLINE
344	M.VENKATESHWARAN	Jl Raheja	OPTICAL CHARACTER RECOGNITION USING MACHINE LEARNING
345	MADHUR PANWAR	Rajiv Kumar	HAMILTONIAN CYCLES IN PLANAR GRAPHS AND PLANAR DRAWINGS
346	MAHESH KAUSHIK	Anshuman	EFFECT OF FIBERS ON THE MECHANICAL PROPERTIES OF GEOPOLYMER CONCRETE
347	MAITRI SHASTRI	Dhiraj Sangwan	OBJECT IDENTIFICATION AND RECOGNITION USING VARIOUS MACHINE LEARNING TECHNIQUES
348	MALAIKA RASTOGI	Shibasish Chowdhury	UNDERSTANDING THE APPLICATION OF MACHINE LEARNING AND NEURAL NETWORK IN BIOLOGICAL SYSTEM.
349	MALLYA AKSHAT SATYANARAYAN	Jitendra S Rathore	STUDY OF A VIBRATING TAPERED BEAM IN FLUID FLOW USING COMSOL

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S. No.	Name of Student	Faculty Name	Project Title
350	MANAN MEHTA	Rajan Pandey	FINANCING OF CORPORATIONS- EVIDENCE FROM INDIA
351	MANAN MEHTA	Vinod Kumar Chaubey	QUANTUM EFFECTS IN NANOSCALE DEVICES.
352	MANAN SINGHAL	Srikanta Routroy	DEVELOPMENT OF TISM FOR THE ECONOMIC ANALYSIS OF SUPPLIER DEVELOPMENT PROGRAM
353	MANAS GUPTA	Navneet Gupta	PERFORMANCE ANALYSIS OF NANOSCALE MULTI GATE FINFETS.
354	MANAS GUPTA	Navneet Gupta	MODELLING AND SIMULATION OF NANOSCALE MULTIGATE FINFETS
355	MANISH	Virendra Singh Nirban	ADVANTAGES AND DISADVANTAGES OF TECHNOLOGICAL INTERVENTION IN EDUCATIONAL SYSTEM.
356	MANISHA JHA	Somdatta Bhattacharya	PORTRAYAL OF SEXUALITY IN INDIAN MEDIA AND TEXTS: PROVIDING A COUNTER-NARRATIVE
357	MANSI BANSAL	G Muthukumar	NUMERICAL MODEL OF CRACK SIMULATION IN REINFORCED CONCRETE BEAM
358	MANSI JAIN	Aniruddha Roy	UNDERSTANDING BIOLOGICAL RECOGNITION THROUGH DIFFERENT BIOINFORMATICS APPROACHES
359	MANUJ VASHIST	Paritosh Shukla	METHODS OF IDENTIFICATION AND SEPARATION OF FUNCTIONAL GROUPS IN UNDERGRADUATE ORGANIC CHEMISTRY LAB, AN OVERVIEW
360	MASLEKAR SHRADDHA SHRIRAM	Hitesh Dutt Mathur	ENERGY STORAGE SOLUTIONS FOR MICROGRID SCENARIO
361	MASLEKAR SHRADDHA SHRIRAM	Rajneesh Choubisa	BEHAVIORAL ECONOMICS OF WASTAGE : AN ANALYSIS FROM BITS
362	MAYANK	Manoj Kumar	ANALYSIS OF BOX CULVERTS AND ITS BEHAVIOUR.
363	MAYANK AGARWAL	Shamsher B Singh	"POST BUCKLING STRENGTH OF FUNCTIONALLY GRADED COMPOSITE PLATES."
364	MAYANK RAJ	Ashutosh Kar	FINANCIAL SIGNAL PROCESSING USING MACHINE LEARNING
365	MAYANK SINGH	Syamantak Majumder	ROLE OF HYPERGLYCEMIA IN ENDOTHELIAL CELLS- PODOCYTE CROSS TALK IN GLOMERULI
366	MEDHA VIDYOTMA	M S Dasgupta	SUPPLY CHAIN MANAGEMENT
367	MEENAKSHI SUNDARAM M	Abhijit K Digalwar	UNDERSTANDING MATERIAL MANAGEMENT AND LAYOUT PLANNING USING FLEXIM
368	MEENAL MANSINGHANI	Shilpi Garg	STUDY OF ARTEMISININ RESISTANCE IN PLASMODIUM
369	Megha Saini	Sangeeta Sharma	EFFECTIVE COMMUNICATION IN ADVERTISEMENTS
370	MEGHA SHISHODIA	Amit Dua	REALISATION OF POWER SAVING IN NETWORK DEVICES USING SDN.
371	MEGHANI IMRAN IQBAL	Kamlesh Kumar	TO STUDY THE VARIOUS ABIOTIC STRESS FACTORS ON THE PHOTOSYNTHESIS
372	MEHAK BINDRA	Navin Singh	VARIOUS ASPECTS OF PHASE TRANSITION
373	MIHIR SIROHI	Navneet Goyal	VOICE-BASED PROFILING OF PEOPLE
374	MITALI JAIN	Hemant R Jadhav	NEW DEVELOPMENTS IN DYNAMINE INHIBITORS.
375	MITHUN NAIR	Girish Kant	DEVELOPEMENT OF ISM FOR ENHANCING BUYER SUPPLIER RELATIONSHIP
376	MITUL SHARMA	Navneet Gupta	STUDY OF QUANTUM TRANSPORT IN CNT FETS USING ATOMISTIX TOOLKIT
377	MOHAMMED DANISH	Anantha Krishna Chintanpalli	CHORD RECOGNITION IN MUSIC USING ARTIFICIAL NEURAL NETWORKS
378	MOHIT JAISWANI	Arun Kumar	CONSUMER ACCEPTANCE OF INNOVATIONS IN FOOD: A SURVEY AMONG INDIAN CONSUMERS
379	MOHIT KAMLESH SIDHWANI	Saumi Ray	SOLAR CELLS AND ADVANCEMENTS USING NANOTECHNOLOGY
380	Monika Saini	Virendra Singh Nirban	TECHNOLOGY INTERVENTIONS IN E-GOVERNMENT SERVICES
381	MONIS MUSHTAQUE	Syamantak Majumder	EPIGENETICS OF ENDOTHELIAL CELLS DURING TUMOR ANGIOGENESIS
382	MORLAWAR ANAND SHASHIKANT	Bhupendra K Sharma	THERMAL HEMODYNAMIC SLIP FLOW CONVEYING NANOPARTICLES THROUGH A COMPOSITE STENOSED ARTERY
383	MRIGANKSHI KAPOOR	Navneet Goyal	APPLICATIONS OF NOWCASTING IN PREDICTING NATURAL DISASTERS
384	MUDIT GATTANI	Smita Raghuvanshi	STUDY OF SEQUENTIAL BATCH REACTOR OF TEXTILE INDUSTRY EFFLUENT KEEPING

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S. No.	Name of Student	Faculty Name	Project Title
			SUSTAINABILITY IN MIND
385	MUKUL RANA	Biswanath Layek	COSMOLOGY : FOUNDATIONS AND FRONTIERS
386	MUNDADA RISHABH AJAY	Rajan Pandey	IMPACT OF CAPITAL STRUCTURE DECISIONS ON STOCK PRICE OF THE FIRM
387	MUSKAAN CHUGH	Bibhas Ranjan Sarkar	CARBONDIOXIDE ACTIVATION
388	Muskaan Verma	Rajneesh Choubisa	DATA MINING FOR SYSTEMATIC REVIEW OF ORGANISATIONAL PSYCHOLOGY RESEARCH: THE INDIAN PANDORA BOX
389	MUSKAN AGARWAL	Suresh Gupta	STUDY THE THERMAL TREATMENT OF WASTEWATER FROM DIFFERENT INDUSTRIES AND SUGGEST BEST METHOD FOR ENERGY RECOVERY.
390	MUSTANSIR MOHAMMED MAMA	Jitender Kumar	A STUDY OF GRAPHS ON RINGS
391	NABARUN GOGOI	Kamlesh Tiwari	FACE RECOGNITION USING WEB CAMERA.
392	NAGAM SRI SAI VEERA VENKAT	Dipendu Bhunia	STUDY ON EARTHQUAKE CONTROL DEVICES
393	NAMAN DEEP SRIVASTAVA	Rajiv Kumar	STUDY OF CLUSTERING ALGORITHMS IN GRAPH THEORY
394	NAMAN SARRAF	Kuldip Singh Sangwan	IMPLEMENTATION OF VARIOUS LEAN TOOLS AND TECHNIQUES
395	NAMAN TODWAL	Jennifer Ranjani J.	EVALUATION OF A TAMPERED IMAGE FOR ITS SECURITY USING IMAGE AUTHENTICATION AND INTEGRITY VERIFICATION
396	NAMAN WADHWA	Rajesh P Mishra	A CONCEPTUAL MODEL FOR THE DEPLOYMENT OF LEAN SIX SIGMA
397	NAMBURI DHANA CHINA SAI PAVAN GANESH	Shamsher B Singh	BEHAVIOUR OF FUNCTIONALLY GRADED CONCRETE BEAMS
398	Namrata Mohanty	Surekha Bhanot	APPLICATIONS OF DEEP LEARNING IN MEDICAL IMAGE ANALYSIS
399	NARAPAREDDY BHAVANA	A. S. Mandal	DEVELOPMENT OF COMMUNICATION TOWER MONITORING AND POWER LINE MONITORING APPLICATION USING DRONES
400	NAREN	Madhukar Mishra	TRANSVERSE MOMENTUM SPECTRA OF QUARK GLUON PLASMA USING HYDRODYNAMICS
401	NARULA DEVESH ASHWANI	Rajneesh Kumar	STUDY OF SOCIO-ECONOMIC ASPECTS OF RENEWABLE ENERGY INSTALLATION IN INDIA
402	NAVEEN KUMAR GEMBALI	K P Venkatesh	INFLUENCE OF ADHESION ON DYNAMICS OF DROPLETS
403	NAVEEN VENKAT	Vandana Agarwal	ANALYSING PATTERNS IN EEG SIGNALS USING MACHINE LEARNING TECHNIQUES
404	NEHA AGGARWAL	Ashish Patel	REAL TIME VALIDATION OF A MICROGRID USING OPAL-RT
405	NEHA KUMARI	Girish Kant	SUPPLY CHAIN MANAGEMENT
406	Neha Saini	Virendra Singh Nirban	TECHNOLOGY INTERVENTIONS IN E-COMMERCE PAYMENT/BANKING SERVICES
407	NEHAL AMBAST	Rajeev Taliyan	TO STUDY THE TECHNIQUE AND THERAPEUTIC POTENTIAL OF STEM CELL THERAPY OF BRAIN STROKE.
408	NEIL WILSON	Ashutosh Bhatia	AN ANALYSIS OF DIFFERENT BLOCKCHAIN NETWORKS
409	NEMANI GURU NAISHADH	Tufan Chandra Bera	MANUFACTURING OF THIN WALLED PART
410	NIDHEESH S	Aniruddha Roy	ANTIBODY PLASTICITY IN B CELLS- ITS IMPLICATIONS IN AFFINITY OF ANTIBODY TO ANTIGEN
411	NIKHIL DILIP AGRAWAL	Kamlesh Tiwari	DEMOGRAPHIC DATA ANALYSIS USING VARIOUS MACHINE LEARNING TECHNIQUES.
412	NIKHIL GOEL	Ashutosh Kar	FINANCIAL SIGNAL PROCESSING USING MACHINE LEARNING
413	NIKHIL GOYAL	Hitesh Dutt Mathur	FEASIBILITY ANALYSIS OF ELECTRICAL VEHICLES FROM INDIAN PERSPECTIVE
414	NIKHIL KHANDELWAL	K Hari Babu	COLLECTION OF CONSISTENT STATS IN SDN
415	NIKHIL VINAY SHARMA	Surekha Bhanot	ACCELERATING DEEP CONVOLUTIONAL NETWORKS FOR CLASSIFICATION AND DETECTION
416	NIKITA SRIVASTAVA	Rajneesh Choubisa	POSITIVE PSYCHOLOGICAL STATES AND BIOLOGICAL PROCESSES
417	NIKKI GUPTA	A. S. Mandal	AI BASED COMPUTE CURE FOR CANCER

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S. No.	Name of Student	Faculty Name	Project Title
418	NILAY ARORA	K Solomon Raju	NOISE ELIMINATION FROM IOT BASED NETWORK USING MACHINE LEARNING
419	NILESH NARANIWAL	Satyendra Kr Sharma	INVENTORY MANAGEMENT BY TATA MOTORS.
420	NIPUN GARG	Satyendra Kr Sharma	SUPPLY CHAIN SECURITY
421	NIRMIT GUPTA	Shyam Sundar Yadav	STUDY OF BLOOD FLOW THROUGH ARTERIES USING NON-NUMERICAL SIMULATION.
422	NISHAD SAHU	Surekha Bhanot	LOW COST REFRESH-ABLE BRAILLE DISPLAY (RBD) FOR THE VISUALLY IMPAIRED
423	NISHANK MALIK	AK Das	PATHOGENESIS IN SEVERE MALARIA
424	NISHIT GARG	Rakhee	SIMULATION OF MULTI-SERVER QUEUEING SYSTEMS APPLICATION TO CELLULAR NETWORKS.
425	NITANT ATUL UPASANI	Bhupendra K Sharma	MATHEMATICAL MODELLING OF SWING OF A CRICKET BALL
426	NITHIN RAHAV J K	S Gurunarayanan	HIGH SPEED ARITHMETIC CIRCUITS
427	OM PRAKASH SAINI	Virendra S Shekhawat	MOODLE (NALANDA) CUSTOMIZATION FOR PILANI CAMPUS REQUIREMENT
428	OM PRAKASH SAINI	Jyoti	INVESTIGATING THE PROBLEMS BEING FACED BY THE STARTUPS IN INDIA
429	OZA VILOM GANPATLAL	Girish Kant	STUDY THE VARIOUS ISSUES OF GOVERNMENT SUPPORTED HEALTHCARE SUPPLY CHAIN IN INDIA
430	OZA VILOM GANPATLAL	Arun Kumar	TO EXPLORE THE PRODUCTIVE USE OF SOCIAL MEDIA PLATFORM
431	P ABHINAV	Bhanu Vardhan Reddy	MODELS FOR PREDICTING MIXED MATRIX MEMBRANE PERFORMANCE
432	P.RIJU JACOB	To Be Announced	WEARABLE HEALTH MONITORING SYSTEM USING IOT
433	PALAK GOYAL	Amit Dua	EFFICIENT CLUSTERING USING FUZZY ROUGH SET THEORY IN ADHOC NETWORKS
434	PALLAV KALPESH SONI	P Chattopadhyay	COMPARISON OF BIOSURFACTANTS WITH CHEMICAL SURFACTANTS FOR APPLICATION EFFECTIVENESS.
435	PANKAJ SINGH	Pushp Lata	USE OF MOBILE PHONES FOR DEVELOPING ENGLISH LANGUAGE SKILLS.
436	PARATE PARIKSHIT RAVI	Arun Kumar	CONSUMER ACCEPTANCE OF INNOVATIONS IN FOOD. A SURVEY AMONG INDIAN CONSUMERS.
437	PARIDHI GUPTA	Srikanta Routroy	SUPPLY CHAIN MANAGEMENT
438	PARIKH CHIRAG HITESH	Girish Kant	NUMERICAL SIMULATION OF ULTRASONIC MACHINING PROCESS
439	PARTH KASHIKAR	J N Bandopadhyay	QUANTUM CIRCUIT EVOLUTION WITH DEEP NEURAL NETWORKS
440	PARTH SETHI	NV Muralidhar Rao	EXTREME VALUE ANALYSIS OF MAJOR STOCK INDICES
441	PARTHO SARTHI	Dhiraj Sangwan	OBJECT DETECTION IN AERIAL IMAGES USING CNN
442	PASUMARTHI JAYANTH	B.A. Botre	ARTIFICIAL INTELLIGENCE CONTROLLED ACTUATORS BASED ON THERMO-RESPONSIVE SMART MATERIALS
443	PATEL KRUSHAL RAJESH	TBA (Mgts)	INFORMATION ASYMMETRY AND ITS EFFECTS ON VALUATION & STOCK MARKET. PROJECT GUIDE- DR. SAURABH CHADHA (MGTS)
444	Patil Anway Dinesh	Rakesh Choubisa	CHAOTIC DYNAMICS IN CHEMICAL REACTIONS
445	PATIL SANJANA ATUL	Devika	GENDER DISCOURSE IN MODERN CINEMA
446	PATIL SANJANA ATUL	Kumar Neeraj Sachdev	ANALYSIS OF CHARACTERS IN INDIAN MYTHOLOGY FROM ETHICAL PERSPECTIVE
447	PEESA JAGADEESH	Rajesh Kumar	DESIGN OF BUILDINGS UNDER EARTHQUAKE CONDITIONS
448	PINTO KEVIN ANTHONY	Hari Om Bansal	DESIGN OF ENERGY OPTIMIZATION STRATEGIES FOR PLUG-IN HYBRID ELECTRIC VEHICLES.
449	POOJA TULSYAN	Rajeev Sakhujia	CHEMISTRY OF PEPTIDES AND PEPTIDOMIMETICS
450	POONAM MISHRA	Jennifer Ranjani J.	IMAGE COLORIZATION THROUGH DEEP LEARNING
451	PRAGYA SHARMA	Anil Jindal	STRATEGIES OF THERAPEUTIC PEPTIDES DELIVERY
452	PRAJIT DHARA	Kari Babu Ravi Teja	MATERIAL SELECTION FOR HIGH POWER APPLICATIONS
453	PRAKHAR KAPOOR	Madhukar Mishra	COLLECTIVE FLOW OF QUARK GLUON PLASMA
454	PRAKHAR SHARMA		HIGH OXYGEN BARRIER COATINGS FOR FOOD PACKAGING APPLICATIONS

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S. No.	Name of Student	Faculty Name	Project Title
455	PRAKHAR SRIVASTAVA	K Solomon Raju	DESIGN OF TOOL CHAIN / PACKAGE FOR SHM APPLICATION
456	PRANAV CHATURVEDI	Shilpi Garg	POTENTIAL OF NANO-PARTICLES AGAINST MALARIA
457	PRANAV DINESH KUMAR	Sangeeta Sharma	CREATIVITY IN ADVERTISEMENTS
458	PRANAV MITTAL	Keyur Joshi	SURVEY AND STUDY OF FLUID STRUCTURE INTERACTION
459	PRANAV PANDEY	Jitender Kumar	COMMUTING GRAPH OF GROUPS AND SEMI-GROUPS
460	PRANAY KUMAR GANGULY	Satyam Srivastav	DEVELOPMENT OF ILLUMINATION INDEPENDENT ALGORITHM FOR COLOUR EXTRACTION OF ON TREE FRUIT FOR RIPENESS DETECTION
461	PRANEETHA CHODEY	Kamlesh Kumar	PHYSICO-CHEMICAL TREATMENT OF WASTE WATER AND RESOURCE RECOVERY.
462	PRANJAL SARIN	Keyur Joshi	FINITE ELEMENT ANALYSIS OF ULTRASONIC HORN
463	Pranjal Vaish	Rajan Pandey	TIME SERIES ANALYSIS AND FORECASTING OF STOCK PRICES: EVIDENCE FROM INDIA.
464	PRASHANT KUMAR RAI	Uma S Dubey	STUDY OF THE PRESERVATION TECHNIQUES OF IMMUNOLOGICAL CHARACTERISTICS IN BLOOD.
465	PRATEEK AGARAWAL	Gaurav Purohit	STUDY OF PREDICTION ALGORITHMS IN NON-STATIONERY LEARNING MODELS FOR AIR QUALITY MONITORING.
466	PRATEEK BEHERA	Kumar S Bhattacharya	LITERATURE FROM CONFLICT ZONE: SRI LANKAN CASE STUDY
467	PRATEEK RAI	Dheerendra Singh	IMPLEMENTATION OF SLIDING MODE CONTROL OF INDUCTION MOTOR DRIVE
468	PRATHIPATI SRI HARSHITH	Rajesh Kumar	STABILITY OF COLUMNS : CHANNEL SECTIONS AND DOUBLY SYMMETRIC SECTIONS
469	PRATYUSH DUBEY	Abhishek Mishra	QUANTUM SATISFIABILITY
470	PRATYUSH MANOCHA	Kari Babu Ravi Teja	STUDY OF SCALING ISSUES IN HEMTS
471	PRATYUSHA RAO	Anupama Mittal	NANO-FORMULATIONS OF TAMOXIFEN FOR TREATMENT OF BREAST CANCER.
472	PREET SINGH KHALSA	Vinay Chamola	ADVANCED OPTIMIZATION TECHNIQUES
473	PRITHVI RAJ	Shan Balasubramaniam	PARALLELIZATION OF CLUSTERING ALGORITHMS FOR IN-MEMORY EXECUTION ON DISTRIBUTED MEMORY ARCHITECTURES USING SPARK PLATFORM
474	PRITYESH RAJ	Dipendu Bhunia	EARTHQUAKE RESISTANT CONSTRUCTION MATERIAL
475	PRIYA RANA	Rajneesh Choubisa	COMPARATIVE ANALYSIS OF SOCIAL NETWORKING USAGE AMONG SCHOOL AND COLLEGE STUDENTS OF PILANI.
476	PRIYANKA VERMA	NV Muralidhar Rao	AN EXPLORATORY STUDY ON FINANCIAL INCLUSION AND DEVELOPMENT IN INDIA .
477	PRIYANSHA GUPTA	Sunil Kumar Dubey	REGULATORY FILINGS AND IP ISSUES IN PHARMACEUTICALS
478	PRIYANSHI JAIN	Anil Jindal	INTRACELLULAR DELIVERY OF NANOPARTICLES IN INFECTIOUS DISEASES
479	PRIYANSHI P GUPTA	Srikanta Routroy	SUPPLY CHAIN MANAGEMENT
480	PUJITA SRIVASTAVA	Suresh Gupta	TO ENHANCE THE PROCESS OF AIR PURIFICATION PROCESS AND MAKE THE PROCESS MORE FEASIBLE AND ECONOMIC
481	PULLAH BHATNAGAR	Rajesh P Mishra	ASSESSMENT OF SAFETY SYSTEM FOR MANUFACTURING ORGANIZATION
482	PUNEET ANAND	Jitender Kumar	A STUDY OF ENHANCED POWER GRAPHS AND ITS SUBGRAPHS ON GROUPS.
483	PUNEET GUPTA	Bhanu Vardhan Reddy	SEPARATION OF WATER VAPOR FROM AIR USING A MEMBRANE MODULE
484	PUNIT HARISH BATRA	Murali M Pandey	STUDY OF LAYER BY LAYER ASSEMBLED CAPSULES
485	PUROHIT ASHUTOSH SUDHIR	Prateek Kala	DEVELOPING A CLOSED LOOP CONTROL SYSTEM FOR AUTOMATING THE SUPER FINISHING OF A FREE FORM SURFACE
486	RAHUL GODARA	Ravi Kant Mittal	ECONOMICAL DESIGN OF SHALLOW AND DEEP FOUNDATION
487	RAHUL P S S B R	Banasri Roy	HYDROGEN STORAGE BY CARBON NANOTUBE
488	RAHUL SAXENA	Poonam Goyal	IMPLEMENTING DEEP LEARNING ARCHITECTURE FOR IMAGE CLASSIFICATION
489	RAJ SRIVASTAVA	Rajeev Taliyan	TO STUDY THE PATHOGENESIS OF EATING DISORDERS (ANOREXIA AND BULIMIA NERVOSA)



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S. No.	Name of Student	Faculty Name	Project Title
490	RAJAT AGARWAL	Keyur Joshi	Survey and study of fluid structure interaction
491	RAJAT PANDEY	Pankaj Kumar Sharma	NATURE V/S NURTURE
492	RAJEEV AGGARWAL	M S Dasgupta	STUDY OF PLYING OF FRP USING ANN
493	RAKSHIT NANWANI	D Bandyopadhyay	STUDY OF SHELLFILL MODEL IN AL8SB6 DOPED WITH TRANSITION METALS (TI, ZR, HF)
494	RAKSHITH S	Sainath Bitragunta	ENERGY EFFICIENT AND DELAY CONSTRAINED COGNITIVE RADIO NETWORK DESIGN AND ANALYSIS.
495	RAM KRISHNA	Anantha Krishna Chintanpalli	EVALUATING THE EFFECTIVENESS OF FEATURE EXTRACTION TECHNIQUES USING SPEECH PROCESSIONING FOR HINDI AND ENGLISH LANGUAGES UNDER DEGRADED CONDITIONS.
496	RAMA SHARMA	Murali M Pandey	PH TRIGGERING STRATEGIES INVOLVED IN NANO-MEDICINE APPLIED TO CANCER TREATMENT.
497	RAMA TEJA GANDHAM	Manjuladevi V	ELECTRIC-OPTIC SWITCHING IN LIQUID CRYSTALS
498	RASHMI LATHI	Shivi Agarwal	A STUDY ON FUZZY DEA
499	RASHMILA MITRA	Rajdeep Chowdhury	AUTOPHAGY AND HIPPO SIGNALING
500	RAVEESH GARG	Surekha Bhanot	BIOMEDICAL IMAGE PROCESSING
501	RAVI KANT SAINI	Anil Rai	HINDUSTANI MUSICIANS OF CLASSICAL MUSIC(KHYEAL STYLE SINGING).
502	RAVISH GOYAL	Satyendra Kr Sharma	OPTIMIZATION OF WAREHOUSE MANAGEMENT SYSTEM
503	RAYAPUREDDI VENKATA PRANEETH	Dipendu Bhunia	STUDY ON EARTQUAKE CONTROL DEVICES
504	REAA SAXENA	J N Bandopadhyay	STATISTICAL MECHANICAL ANALYSIS OF FINANCIAL MARKETS: CASE OF INDIAN MARKET
505	RESHAM RATHI	Gajendra S Chauhan	INCREASING AD VIEWABILITY AND STUDYING THE EFFECTIVENESS OF MEASURES TAKEN TO IMPROVE CONVERSION RATES.
506	RIGVITA SHARMA	A. S. Mandal	DEVELOPMENT OF COMMUNICATION TOWER MONITORING AND POWER LINE MONITORING APPLICATION USING DRONES.
507	RISHABH JAIN	P Srinivasan	ECONOMIC VIABILITY AND TECHNICAL ANALYSIS OF USING VERTICAL SOLAR COLLECTORS FOR ENERGY RECOVERY IN MULTI STOREY BUILDINGS
508	RISHABH JAIN	Jitender Kumar	A STUDY OF GRAPHS ON RINGS.
509	RISHABH SAXENA	Krishna Muniyoor	EFFECT OF INDIAS DEMONETIZATION ON DIGITIZATION OF THE ECONOMY
510	RISHAL AGGARWAL	Aniruddha Roy	MACHINE LEARNING ALGORITHM TO DETECT MALIGNANCY IN TUMOR SAMPLES
511	RISHAV	K Solomon Raju	NOISE ELIMINATION TECHNIQUES IN IOT DISTRIBUTED SYSTEMS USING MACHINE LEARNING/DEEP LEARNING
512	RITIK JAIN	Navneet Gupta	STUDY OF QUANTUM TRANSPORT IN GRAPHENE FETS USING ATOMISTIX TOOLKIT.
513	RIYA AGGARWAL	Murali M Pandey	STUDY ON VARIOUS FORMULATIONS USED IN SKIN WOUND HEALING.
514	RIYA DESHMUKH	Chandra Shekhar	HARDWARE IMPLEMENTATION OF MATHEMATICAL FUNCTIONS
515	RIYA SRIVASTAVA	Devika	ANALOGOUS SIMILARITIES BETWEEN THE MAHABHARATA AND THE MODERN ERA(21ST CE)
516	ROBIN ARORA	Shilpi Garg	UNDERSTANDING APICOPLAST DIVISION IN PLASMODIUM
517	ROHAN GOYAL	G Muthukumar	FIRE MODELLING FOR PERFORMANCE BASED DESIGN
518	ROHAN KELA	Rajesh Mehrotra	STUDY OF CIS REGULATORY ELEMENTS IN PLANT GENE EXPRESSION UNDER BIOTIC STRESS.
519	ROHAN KUMAR ROHIL	Rajesh Kumar	STUDY ON SOME EIGENVALUE PROBLEMS AND THEIR APPLICATIONS
520	ROHAN SANJAY MEHTA	Manjuladevi V	NANOPARTICLE DOPED LIQUID CRYSTALS
521	ROHIT KUMAR	S Murugesan	GREEN SYNTHESIS OF DRUGS: AN OVERVIEW
522	ROHIT MANCHANDA	Sailaja Nandigama	FOOD FORTIFICATION IN POST INDEPENDENT INDIA.
523	Rohit Mandar	Sailaja Nandigama	DYNAMICS OF CLIMATE CHANGE MITIGATION AND ADAPTATION IN THE INDIAN CONTEXT WITH A SPECIFIC FOCUS ON SUSTAINABILITY ISSUES.
524	ROHIT PRASAD KULKARNI	AK Das	MOLECULAR APPROACHES TO DETECTION OF PATHOGENS AND MOLECULES.

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S. No.	Name of Student	Faculty Name	Project Title
525	ROHIT VENKATESH	Hitesh Dutt Mathur	STUDY PROJECT
526	RONAK AGARWAL	Sunil Kumar Dubey	OPPORTUNITIES AND CHALLENGES IN SUPPLY CHAIN MANAGEMENT FOR PHARMACEUTICAL INDUSTRY.
527	RONANKI SRI GOURI	Rajneesh Choubisa	META ANALYSIS AND SYSTEMATIC LITERATURE REVIEW OF EMERGING EHEALTH/MHEALTH TECHNOLOGIES
528	RUDDHI PRASAD PANDA	JP Misra	IMAGE RETRIEVAL USING DEEP LEARNING TECHNIQUES
529	RUDRA PRATAP SINGH	Devika	ANALYSIS OF CINEMATIC TECHNIQUES USED IN FARGO(MOVIE AND T.V. SHOW)
530	RUPESH RAJ	Ajit Pratap Singh	DEVELOPMENT OF WATER QUALITY MONITORING NETWORK USING IOT.
531	RUTWIK NARENDRA JAIN	Sainath Bitragunta	COOPERATIVE AND COGNITIVE SATELLITE SYSTEMS: EFFICIENT PROTOCOL DESIGN AND PERFORMANCE STUDY
532	SAAKSHI KHANDELWAL	Dhiraj Sangwan	OBJECT IDENTIFICATION AND RECOGNITION USING MACHINE LEARNING TECHNIQUES.
533	SACHIN MISRA	Ravi Saini	ENHANCING RESOLUTION OF PANORMIC IMAGES USING SUPER RESOLUTION
534	SAGANE RUTUJ KISHOR	Sachin U Belgamwar	GRAPHENE REINFORCED COPPER AND TITANIUM MATRIX COMPOSITES :A COMPREHENSIVE STUDY
535	SAGAR SALUJA	D Bandyopadhyay	PHYSICS OF AN ELECTRIC GUITAR
536	SAGAR VERMA	Murali M Pandey	STUDY ON POLYMER-DRUG INTERACTIONS IN IN SOLID DISPERSIONS
537	SAHAJ SRIVASTAVA	Sanjay Singh	FALL DETECTION USING DEEP LEARNING
538	SAHARSH AGARWAL	Kuldip Singh Sangwan	USE OF ROBOTICS(AUTOMATION) AND ARTIFICIAL INTELLIGENCE IN INDUSTRY 4.0
539	SAHIL DESAI	Bhanu Vardhan Reddy	FLOW DYNAMICS IN PACKED BED REACTOR WITH DIFFERENT CATALYST SHAPES
540	SAHIL TYAGI	Srikanta Routroy	DEVELOPMENT OF VALUE STREAM MAPPING FOR E-WASTE MANAGEMENT IN INDIA
541	SAHILI V TOTALE	NV Muralidhar Rao	GENDER DISPARITY IN EDUCATION BETWEEN DEVELOPING & DEVELOPED COUNTRIES-A STUDY
542	Saikrishna Kondameedi	K Solomon Raju	HOME AUTOMATION SYSTEMS USING ANDROID
543	SAKANSH MITTAL	NV Muralidhar Rao	ASSESSING THE ECONOMIC IMPACT OF IMPLEMENTING BLOCKCHAIN TECHNOLOGY IN INDIA
544	SAKSHAM CONSUL	Hari Om Bansal	APPLICATION OF INTELLIGENT CONTROL TECHNIQUES TO IMPROVE THE EFFICIENCY OF PVHEVS
545	SAKSHAM NAGAR	Sangeeta Sharma	EXPLORE THE ROLE OF MUSIC AND LANGUAGE IN ADVERTISING.
546	SAMADRITA PAL	Murali M Pandey	ROLE OF HYDROPHILIC POLYMERS IN SOLUBILITY ENHANCEMENT
547	SAMARTH SHARMA	Paritosh Shukla	STUDY OF TACRINE HYBRIDS AS DRUGS AGAINST ALZHEIMER'S DISEASE
548	SAMBIT PANDA	Tapomoy G Sarkar	DARK ENERGY MODELLING
549	SAMEER KUMAR SINGH	P Chattopadhyay	COMPARISON OF BIOSURFACTANTS WITH CHEMICAL SURFACTANTS FOR APPLICATION EFFECTIVENESS.
550	SAMIP JASANI	Kamlesh Tiwari	COGNITIVE COMPUTING FOR NETWORK TRAFFIC
551	SAMKSHA BHARDWAJ	Shamik Chakraborty	A STUDY OF RECENT ADVANCEMENTS IN ASTROCHEMISTRY
552	SANCHIT KHANNA	K Hari Babu	ENHANCING QOS BASED ROUTING FOR CHOSEN FLOWS IN SDN.
553	SANGEET SOURAV SUNDERROY	P Srinivasan	NUMERICAL SOLUTION OF SUPERSONIC TURBLUENT FLOW OVER A DELTA WING
554	SANIDHYA KUMAR PANDEY	Syamantak Majumder	EPIGENETICS OF ENDOTHELIAL CELLS DURING DIABETES
555	SANIYA DASOT	Archana K K	NOVEL ROUTES OF INSULIN DELIVERY FOR DIABETES TREATMENT
556	SANJANA JAIN	Shamsher B Singh	GROUND MOTION SELECTION AND SCALING FOR PERFORMING RESPONSE HISTORY ANALYSIS
557	SANJEET MALHOTRA	Jitender Kumar	POWER GRAPH ON GROUPS
558	SANTHATI K V PURUSHOTHAM	Kaushal Kishore	INTEGRATING SENSORS WITH MOTO MODS
559	SARAPH TAPAN SHIRISH	Sachin U Belgamwar	STUDY OF THE PROPERTIES AND PRODUCTION

Study Project			
S. No.	Name of Student	Faculty Name	Project Title
			TECHNIQUES OF GRAPHENE
560	SAROJ MAHERIA	Pratyush Banerjee	CONTENT WRITING AND MARKETING
561	SARTHAK AGARWAL	Ashutosh Bhatia	DEVELOPMENT OF A CAMPUS WIDE VANET USING RASPBERRY PI , ZIGBEE AND GPS MODULES
562	SARTHAK BISHT	Shyam Sundar Yadav	STUDY OF FINITE VOLUME METHOD AND FINITE ELEMENT METHOD IMPLEMENTATION IN OPENFOAM AND DEAL.II
563	SARTHAK GUMBER	Rajeev Taliyan	TO STUDY PATHOPHYSIOLOGY OF BRAIN STROKE AND BRAIN ANEURYSM.
564	SARVESH SRINIVASAN	J N Bandopadhyay	THERMALIZATION IN QUANTUM CHAOTIC SYSTEMS
565	SATWIK BHATTAMISHRA	Poonam Goyal	IMPROVING GENOME ASSEMBLERS VIA MACHINE LEARNING
566	SATYAM	Pawan K Ajmera	BIOMETRIC SYSTEM: VOICE RECOGNITION
567	SATYAM BHASKAR	Madhukar Mishra	QUARK GLUON PLASMA AT HIGH MATTE DENSITY AND ITS ASTRONOMICAL IMPLICATIONS.
568	SATYAVRAT SHARMA	Sumanta Pasari	STUDY OF EXPONENTIATED MODELS
569	SAURABH GUPTA	Krishna Muniyoor	ECONOMIC ANALYSIS OF RESERVATION
570	SAURABH JAIN	Rajan Pandey	VOLATILITY SPILLOVER AND ITS IMPACT ON ASSET PRICING
571	SAURABH SHANKAR SHETTY	Mayuri Digalwar	DESIGN AND IMPLEMENTATION OF ARM PROCESSOR
572	SAURABH VERMA	Banasri Roy	CONVERSION OF CO2 TO A USEFUL PRODUCT USING NANOCATALYSTS AS WELL AS KINETIC ANALYSIS OF THE PROCESS.
573	SAURAV NARULA	Ashish Tiwari	MATHEMATICAL MODELLING OF BLOOD FLOW THROUGH ARTERIES WITH PERMEABLE WALLS.
574	SAYLEE MOTIRAM KANADJE	NV Muralidhar Rao	EFFECTS OF MONETARY POLICY SPILLOVERS USING EVIDENCE FROM EMERGING ECONOMIES
575	SAYLEE MOTIRAM KANADJE	Sainath Bitragunta	APPLICATION OF GAME THEORY IN COGNITIVE RADIO IOT
576	SHAH NEEL KAUSHIK	Rakhee	A STUDY OF ALGORITHMIC MECHANISM DESIGN: FOCUSING ON DISTRIBUTED ALGORITHMIC MECHANISM DESIGN
577	SHASHANK DWIVEDI	Shamik Chakraborty	THEORETICAL AND COMPUTATIONAL STUDY OF RESONANCE ASSISTED HYDROGEN BONDING(RAHB) INTERACTION
578	SHAYAN CHOUDHURY	Ajay Kumar Pani	STUDY AND APPLICATION OF RESTRICTED BOLTZMANN MACHINE
579	SHETH HARSH RAJENDRAKUMAR	K S Raju	STASTICAL BASED PREDICTIVE ANALYSIS OF ACCELEROMETER SENSOR SIGNALS
580	SHETTY SHREYAS SUNDER	K Hari Babu	DESIGN AND IMPLEMENTATION OF WAYPOINT ENFORCEMENT IN HYBRID ENVIRONMENT.
581	SHIKHAR SHIROMANI	Devesh Samaiya	STUDY ON BACKGROUND MODELLING TECHNIQUES IN VIDEO SEQUENCES WITH HIGHLY DYNAMIC BACKGROUND.
582	SHIKHAR SINGH	Shilpi Garg	STUDY OF GENE KNOCKOUTS IN PROKARYOTIC SYSTEM TO ELUCIDATE THE FUNCTION OF PLASMODIUM PROTEINS
583	SHIVAM AGRAWAL	Pradeep Kr H Keskar	INTRODUCTION TO PROJECTIVE GEOMETRY.
584	SHIVAM JAISWAL	Srinivas Appari	CATALYSTS FOR CO2 UTILIZATION
585	SHIVAM JINDAL	Srikanta Routroy	SUPPLY CHAIN MANAGEMENT
586	SHIVAM SINGH	Ravi Kant Mittal	ECONOMICAL DESIGN OF SHALLOW AND DEEP FOUNDATIONS
587	SHIVANI SHUKLA	S Murugesan	COMPUTER AIDED DRUG DESIGN APPROACHES
588	SHIVESH GANJU	Devika	IMPACT OF COMPLEX PLOTS IN HOLLYWOOD MOVIES
589	SHRAVAN TUMMALA	Gaurav Purohit	STUDY OF CLASSICAL NLP FOR ANOMALY DETECTION IN COMPARIOSN TO SPATIAL ALGORITHMS FOR AIR QUALITY MONITORING
590	SHRAY AGRAWAL	Ravi Kant Mittal	BEHAVIOUR OF RANDOMLY DISTRIBUTED FIBRE REINFORCED SOIL
591	SHREY GOYAL	Kamlesh Tiwari	FOUR SLAB SEGMENTATION
592	SHREY JAIN	Devesh Samaiya	DESIGN OF A LOW COST,LOW POWER,ANT-THEFT TRACKING DEVICE FOR PREMIUM LIFETIME BRANDS.
593	SHREYANSH CHANDAK	Avinash Gautam	SENSOR LOCALISATION IN 3D SPACE.
594	SHREYANSH VIJAYVERGIYA	R. Srinivas	SUSTAINABLE POLICY MAKING SCENARIOS FOR RIVER GANGES

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S. No.	Name of Student	Faculty Name	Project Title
595	SHREYAS HEJIB		RF MEMS TECHNOLOGY BASED PHASE SHIFTER.
596	SHREYASH SINGH THAKUR	Subhashish Gangopadhyay	METAL NANOSTRUCTURES & DIFFUSION KINETICS LEADING TO ALLOYING AND OXIDATION
597	SHRIJA MAJUMDER	Pushp Lata	STUDY ON DEVELOPMENT OF CROSS CULTURAL COMPETENCY AMONG STUDENTS UNDER THE INFLUENCE OF SOCIAL MEDIA.
598	SHRISTI KUMARI	Suresh Kumar	STUDY OF ORIGIN AND EVOLUTION OF THE UNIVERSE
599	SHRUTI JASORIA	Kamlesh Tiwari	Adaptive Fingerprint Database
600	SHRUTI SHARMA	Bijoy Kumar Raut	ROBOTIC ASSEMBLY WITH JOINT FLEXIBILITY
601	SHUBHAM AGGARWAL	Sanjiv Kr Choudhary	IMPACT OF TECHNOLOGY ON LANGUAGE
602	SHUBHAM BHANDARI	Krishna Muniyoor	AGRO ENTREPRENEURSHIP AND AGRO FINANCE
603	SHUBHAM BHATT	Bhupendra K Sharma	MODELING OF MHD BLOOD FLOW AND HEAT TRANSFER IN A STENOSED ARTERY.
604	SHUBHAM GARG	Ashish Tiwari	APPLICATION OF STOKES-BRINKMAN EQUATION IN ANALYSING FLOW THROUGH SWARM OF PARTICLES.
605	SHUBHAM GUPTA	Amit Jain	GAS HYDRATES
606	SHUBHAM GUPTA	Rajesh P Mishra	ANALYSIS OF MAINTENANCE SYSTEM FOR SMALL AND MEDIUM SCALE INDUSTRY.
607	SHUBHAM GUPTA	Madhukar Mishra	A STUDY ON QUARK GLUON MODEL AT HEAVY ION COLLISION
608	SHUBHAM JAIN	Kamlesh Tiwari	UGC VALIDATOR
609	SHUBHAM JAIN	Tapomoy G Sarkar	COSMOLOGY
610	SHUBHAM RAJ	Meghana Tare	EVOLUTIONARY PROPERTIES OF CANCER
611	SHUBHAM RAJ	Meghana Tare	INVOLVEMENT OF E3 UBIQUITIN LIGASE IN DEVELOPMENT AND DISEASE.
612	SHUBHAM SHARMA	Jennifer Ranjani J.	DRIVERS SLEEP DETECTION
613	SHUBHAM SHUKLA	Satyendra Kr Sharma	WASTE MANAGEMENT IN AGRICULTURAL SUPPLY CHAIN
614	SHYAMSUNDAR P I	Sharad Srivastava	EFFECT OF THE SURFACE TEXTURING SCALE ON THE SELF-CLEAN FUNCTION: CORRELATION BETWEEN MECHANICAL RESPONSE AND WETTING BEHAVIOR
615	SIDDHANT GANGWAL	Navneet Gupta	PERFORMANCE ANALYSIS OF NANOSCALE MULTI GATE FINFETS.
616	SIDDHANT JAIN	Manoj Soni	DESIGN AND SIMULATION OF ETHANOL DIRECT INJECTION IN GASOLINE ENGINE
617	SIDDHANT NARULA	Devendra Kumar	NUMERICAL SOLUTIONS OF FRACTIONAL ORDER IVPS/BVPS
618	SIDDHARTH NAGPAL	S Gurunarayanan	CACHE MEMORY DESIGN FOR HIGH PERFORMANCE COMPUTING SYSTEMS
619	SIDDHARTH RAJEEV KUMAR SINGHAL	Satyendra Kr Sharma	INVENTORY MANAGEMENT BY TATA MOTORS
620	SIDISHA SHYAM BARIK	K P Venkatesh	MODELLING OF PULMONARY HEART VALVES
621	SINGH NIKITA NARENDRA	Sumanta Pasari	ADJUSTMENT COMPUTATIONS AND SELF-ADJUSTING COMPUTATION
622	SMITH RAJESHKUMAR SHAH	Atanendu Sekhar Mandal	DEVELOPMENT OF COMMUNICATION TOWER MONITORING AND POWER LINE MONITORING APPLICATION USING DRONES.
623	SOHIT AGGARWAL	Syamantak Majumder	EPIGENETICS OF DEVELOPMENTAL ANGIOGENESIS
624	SOMBUDDHA CHAKRAVARTY	Vinay Chamola	EDGE COMPUTING FOR INTERNET OF THINGS
625	SOMIL SHARMA	Kumar Neeraj Sachdev	ETHICS IN INDIAN CIVIL SERVICES
626	SOMIL SINGHAI	Jahagirdar Ankush Chandrakant	IMPLEMENTATION OF WAVELET OR FOURIER NEURAL NETWORKS
627	SOMYA AGRAWAL	Jitendra Panwar	LICHEN FORMING FUNGI, THEIR PHOTOBIONT AND MECHANISM OF ASSOCIATION
628	SOMYA VIJAYVERGIA	Meghana Tare	LUPUS-EXPLORING THE GENETIC AND MOLECULAR MECHANISMS CONTRIBUTING TO DIAGNOSIS OF LUPUS.
629	SOORYA RETHINASAMY	Tapomoy G Sarkar	NON-LINEAR STRUCTURE FORMATION
630	SOUMIL GUPTA	Shamsher B Singh	ENERGY EFFICIENCY IN BUILDINGS
631	SOUROJIT SAHA	Sachin U Belgamwar	PARAMETERS AFFECTING HEAT CAPACITY OF MATERIALS
632	SREEHARI K	Praveen Kumar A V	EMBEDDED ANTENNAS.
633	SREEMOYEE GHOSH	Aniruddha Roy	MODULATION OF TUMOUR MICROENVIRONMENT USING ANTI-CANCER THERAPY

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S. No.	Name of Student	Faculty Name	Project Title
634	SRIJAN VERMA	Manoj Kannan	PBPK MODELLING AND ITS APPLICATIONS IN HEALTHCARE
635	SRIJAN VERMA	Sundaresan Raman	STUDY ON MACHINE LEARNING FOR IMAGE-BASED PLANT DISEASE DETECTION
636	SRINIVASH M	Deepak Chitkara	CRISPR/CAS TECHNOLOGY FOR GENOME EDITING: CHALLENGES AND POTENTIAL
637	SRISHTI BANZAL	NV Muralidhar Rao	ASSESSING THE ECONOMIC IMPACT OF IMPLEMENTING BLOCKCHAIN TECHNOLOGY IN INDIA
638	SRISHTI BANZAL	Navneet Goyal	APPLICATION OF NOWCASTING IN EARTHQUAKE DETECTION
639	SRISHTI JAIN	Abhijit R Asati	REAL-TIME IMPLEMENTATION OF IMAGE PROCESSING ALGORITHMS USING MATLAB
640	SRISHTI JAIN	Devika	CHILDREN OF WAR MOVIE ANALYSIS IN TERMS OF CINEMATOGRAPHY AND CONTENT
641	SRISHTI SHARMA	Sudeshna M Choudhury	ROLE OF CYTOKINES IN REGULATING AUTOPHAGY AND CANCER
642	SUKRUT ANOOP NIGWEKAR	Arya Kumar	PRICING WEATHER DERIVATIVES
643	SUMIT KUMAR	Rajneesh Choubisa	COMPARATIVE ANALYSIS OF SOCIAL NETWORKING USAGE AMONG SCHOOL AND COLLAGE STUDENTS OF PILANI.
644	SURABHI SULTANIA	S Murugesan	APPLICATION OF SONO CHEMISTRY IN DRUG SYNTHESIS.
645	SURANSHE ROUNAK SHRAWAN	Madhukar Mishra	A STUDY ON QUARK-GLUON PLASMA AT HEAVY-ION COLLISION
646	SURJAN VEDANSH SANJAY	Shivi Agarwal	A STUDY ON FUZZY DEA
647	SURPANI HARI VENKATA KRISHNA	Harikrishnan G Nair	DOCUMENTING SELECT ARCHIVAL MATERIAL PERTAINING TO THE HISTORY OF BITS PILANI
648	SUSHEEM KOUL	Jahagirdar Ankush Chandrakant	DEEP LEARNING BASED SOFT SENSORS.
649	SUVIGYA VIJAY	NV Muralidhar Rao	CRIME AND DETERRENCE RELATIONSHIPS: A PREDICTIVE ANALYSIS IN THE INDIAN CONTEXT
650	SUYASH SANJEEV KUMAR	Indresh Kumar	UNDERSTANDING OF DIRECT MANNICH REACTION AND RELATED CASCADE SEQUENCES.
651	SUYASH SHARMA	Sunil Kumar Dubey	ROLE OF STATISTICAL SOFTWARES - R PROGRAMMING AND SAS IN PHARMA ANALYTICS.
652	TANAY AGRAWAL	Surekha Bhanot	IMAGE CAPTIONING USING CNN AND RNN
653	TANAY SAH	Anupam Singhal	DESIGN OF WATER TREATMENT PLANT
654	TANMAY DIXIT	Kari Babu Ravi Teja	CONTACT RESISTANCE EFFECTS IN OTFT: MODELLING, EXTRACTION AND MITIGATION
655	TANMAY JAISWAL	Kamlesh Kumar	BRICK MASONRY CONSTRUCTION
656	TANUJ KUMAR	Anu Gupta	DESIGN OF DIFFERENTIAL POWER ATTACK IMMUNE CIRCUITS FOR ROBUST DATA ENCRYPTION
657	TANVI AGGARWAL	Kamlesh Tiwari	FINGERPRINT INDEXING FOR BIG DATABASES
658	TANYA AGGARWAL	Niladri Sarkar	ANALYSIS OF INDUS VALLEY SCRIPTS USING MARKOV CHAIN METHOD
659	TARUN CHOUDHRY	Manoj Kumar	ANALYSIS OF T-BEAM BRIDGE DECKS USING ORTHOTROPIC PLATE THEORY
660	TARUN KATARIA	Geetilaxmi Mohapatra	TAXATION AS A TOOL FOR ECONOMIC DEVELOPMENT IN INDIA
661	TATHAGAT SAXENA	Rajan Pandey	APPLICATION OF REGRESSION AND TECHNICAL ANALYSIS IN INDIAN STOCK MARKETS
662	THONTEPU NAGA DATTA MADHU KIRAN	Sanjay Singh	HUMAN ACTIVITY RECOGNITION IN INDUSTRY ENVIRONMENT USING UNSUPERVISED TECHNIQUES
663	THOTA VENKATA SURYA SIVA SAI RAM	Jai Gopal Pandey	EDGE COMPUTING
664	TIASHA MAZUMDAR	Murali M Pandey	STUDY OF VARIOUS TOOLS IN PHARMACOECONOMICS
665	TUSHAR KAUSHIK	Jahagirdar Ankush Chandrakant	SIMULATION STUDY OF SLIDING MODE CONTROL
666	UDAY GUPTA	Pradeep Kr H Keskar	INTRODUCTION TO PROJECTIVE GEOMETRY
667	UJJWAL SAINI	K Solomon Raju	STATISTICAL BASED PREDICTIVE ANALYSIS OF ACCELEOMETER SENSOR SIGNALS.
668	UMANG GARG	Anu Gupta	DESIGN AND ANALYSIS OF NANOMETER SRAM IN SUBTHRESHOLD REGION
669	UTKARSH SIRPURKAR	Sumanta Pasari	ARTIFICIAL NEURAL NETWORKS FOR RENEWABLE

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S. No.	Name of Student	Faculty Name	Project Title
			ENERGY ANALYSIS
670	UTKARSH TRIPATHI	Anil Kumar	PALLADIUM CATALYZED INTRAMOLECULAR DEHYDROGENATIVE COUPLING IN THE SYNTHESIS OF HETEROCYCLES.
671	UTKARSH VASHISHTHA	Sanjay Singh	FALL DETECTION USING DEEP LEARNING
672	UTKARSH VERMA	Rajesh Mehrotra	STUDY OF GARE CIS ELEMENT PRESENT IN PROMOTER FOR ABIOTIC STRESS TOLERANCE IN PLANTS.
673	UTSAV AKHAURY	Rakesh Choubisa	HIGH-HARMONIC SPECTROSCOPY OF ALIGNED MOLECULES
674	UTSAV LALWANI	Abhijit K Digalwar	UNDERSTANDING MATERIALS MANAGEMENT AND LAYOUT PLANNING USING FLEXSIM SOFTWARE.
675	VADERIA SHYAMAL LALITBHAI	Kamlesh Tiwari	CONTENT TAGGER
676	VAIBHAV KAUSHIK	Jitender Kumar	SEMIGROUPS AND THE ZERO DIVISOR GRAPHS
677	VAIBHAV MAHESHWARI	K Hari Babu	PERFORMANCE EVALUATION OF EXISTING NETWORK AFTER DEPLOYMENT OF SDN DEVICES
678	VAIBHAV MATHUR	Krishnendra Shekhawat	A STUDY OF ORTHOGONAL LAYOUTS
679	VAIBHAV MIGLANI	Sainath Bitragunta	APPLICATION OF GAME THEORY IN COGNITIVE RADIO IOT
680	VAIBHAV RAJ	Kuldip Singh Sangwan	EFFECT OF LEAN AND QUALITY PRACTICES ON GREEN SUPPLY CHAIN MANAGEMENT
681	VAIBHAVI RASTOGI	Kari Babu Ravi Teja	STUDY ON CONTACT RESISTANCE AND METHODS TO MITIGATE IT IN ORGANIC THIN FILM TRANSISTORS.
682	VAISHNAVI BHARGAVA	Rajiv Kumar	IMPLEMENTATION OF DIFFERENT GRAPH ALGORITHMS
683	VAISHNAVI BHARGAVA	Navneet Goyal	TOPOLOGICAL DATA ANALYSIS AND ITS APPLICATIONS
684	VARANASI ROSHINI	B.A. Botre	TO STUDY DATA ANALYTIC TECHNIQUES FOR ADDRESSING CHALLENGES IN SMART WATER TREATMENT PLANT
685	VARNITA YADAV	Praveen Goyal	ANALYSIS OF THE COMPARATIVE ADVERTISING IN INDIA: CASE OF PRINT ADVERTISING.
686	VARUN AGARWAL	Dhiraj	OBJECT DETECTION IN AERIAL IMAGES USING CNN
687	VARUN GUPTA	Dhiraj	VISUAL QUESTION ANSWERING (VQA)- BASED ON COMPUTER VISION (CV) AND NATURAL LANGUAGE PROCESSING (NLP). ALSO REQUIRES KNOWLEDGE OF DEEP LEARNING AND NEURAL NETWORKS. TO GENERATE ANSWERS BASED ON A GIVEN IMAGE AND A NATURAL LANGUAGE QUESTION.
688	VASU SHARMA	Sunita Raina	BUDDHIST MARXISM
689	VEDANT BAGHEL	Rajiv Kumar	STUDY OF PLANAR GRAPH DRAWINGS
690	VIBHAS JAISWAL	NV Muralidhar Rao	ECONOMIC ANALYSIS OF HYPERINFLATION IN GERMANY IN 1920S
691	VIBHAS JAISWAL	Kuldip Singh Sangwan	ASSESSING CURRENCY PRINTING TECHNOLOGY
692	VIBHAV OSWAL	Rajiv Kumar	ALGORITHMIC STUDY OF PROBLEMS IN PLANAR GRAPHS
693	VIDHI SHAH	Pawan K Ajmera	STUDY OF BIO-METRIC SYSTEMS: PALM PRINT RECOGNITION
694	VIDISHA VIJAY	Priya C Sande	STUDY AND MODELLING OF FLUIDIZED BED USING DISCRETE PHASE MODELLING(DPM)
695	VIDIT JAIN	Yashvardhan Sharma	QUESTION ANSWERING SYSTEM
696	VIGHNESH HEGDE	Trilok Mathur	A STUDY OF DISCRETE FRACTIONAL CALCULUS
697	VIGNESH JAYARAMAN	Rajeev Taliyan	TO STUDY THE THERAPEUTIC POTENTIAL OF BACTERIOPHAGES AGAINST MULTI DRUG RESISTANT TUBERCULOSIS
698	VIGNESH N	Vandana Agarwal	BRAIN COMPUTER INTERFACE AND ITS APPLICATIONS
699	VIHANG SNEHAL SHAH	Rajesh P Mishra	DESIGN OF 3 BIN CABANA SYSTEM AND ITS KEY PERFORMANCE PARAMETERS.
700	VIKASH SINGH	Madhukar Mishra	STUDY ON NEUTRON IMAGING AND ITS APPLICATIONS
701	VIKRAM SINGH CHANDRAWAT	NV Muralidhar Rao	DESIGN OF EARLY WARNING SYSTEM FOR FINANCIAL CRISES
702	VIKRANT SINGH	Meghana Tare	MATHEMATICAL MODELLING OF APOPTOSIS DURING DISEASED CONDITION.

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S. No.	Name of Student	Faculty Name	Project Title
703	VINAMRA SAXENA	Varun Sharma	PHARMACEUTICAL APPLICATIONS OF 3-D PRINTING
704	VINAY U PAI	Kumar Neeraj Sachdev	A STUDY OF CHANAKYAS ARTHASHASTRA AND ITS RELEVANCE IN THE 21ST CENTURY
705	VINAYAK GUPTA	Vishal Gupta	DEVELOPMENT OF ALGORITHMS FOR SDN USING ESTINET
706	VIPIN ARORA	Aniruddha Roy	GENE THERAPY FOR CANCER
707	VISHAL PATIL	Kumar Neeraj Sachdev	ETHICAL ANALYSIS OF DECEPTION IN BUSINESS
708	VISHVAS GUPTA	Anshuman	ANALYSIS OF HIGH RISE BUILDINGS UNDER HORIZONTAL FORCES.
709	VUTUKURI ANOOP REDDY	Vinay Chamola	STUDY ON DIFFERENT RESEARCH AREAS IN THE INTERNET OF THINGS.
710	VYAS AJINKYA KISHOR	Hari Om Bansal	DESIGN OF ENERGY OPTIMIZATION STRATEGIES FOR PLUG IN HYBRID ELECTRIC VEHICLES
711	WANKHEDE VIJAYALAXMI SHARAD	Bhagavatula Vani	ALKALINE PH INDUCED ALTERATIONS IN ARTHROSPIRA PLATENSIS: A PROTEOMICS APPROACH
712	YASH AKHAURI	Surekha Bhanot	A PERFORMANCE ANALYSIS OF XNOR NEURAL NETWORKS
713	YASH BANSAL	Jl Raheja	PREDICTION OF CERVICAL CANCER USING CLASSIFICATION TECHNIQUES.
714	YASH BATRA	Kuldip Singh Sangwan	GREEN SUPPLY CHAIN MANAGEMENT
715	YASH MEHTA	Jyoti	INVESTIGATING THE PROBLEMS BEING FACED BY THE STARTUPS IN INDIA.
716	Yash Wardhan Shyam	Pushp Lata	DECONSTRUCTING TABOOS AND SUPERSTITIONS IN PILANI WITH COMMUNITY MOBILIZATION APPORCH
717	YEMBARWAR AYUSH KISHOR	Manjuladevi V	NANOPARTICLE DOPED LIQUID CRYSTALS

Special Project			
S. No.	Name of Student	Faculty Name	Project Title
1	A.ANANTHARAMAN	Biswanath Layek	GRAVITATIONAL WAVES AND APPLICATIONS OF GENERAL THEORY OF RELATIVITY
2	ABHISHEK PAREKH	Vishal Gupta	MITIGATING DNS BASED DDOS ATTACKS IN SDN ENVIRONMENT.
3	ABHYUDAY SHARMA	Pankaj Kumar Sharma	USING BIOMIMICRY TO MAKE GREEN BUILDINGS MORE SUSTAINABLE.
4	ACHAL AGARWAL	Rajiv Kumar	CONNECTED DOMINATING SET IN WEIGHTED GRAPHS
5	ADITYA CHAUHAN	Shilpi Garg	IDENTIFYING THE GENETIC MARKERS FOR DIABETES IN INDIAN POPULATION.
6	ADITYA CHOUDHARY	Ravi Kant Mittal	APPLICATION OF GEOSYNTHETIC AND REINFORCED SOIL IN INFRASTRUCTURE.
7	AKARSH RASTOGI	Madhukar Mishra	DETECTION AND MEASUREMENT OF NUCLEAR RADIATION AND ITS APPLICATION (MEDICAL).
8	AKSHAY GOEL	Rakhee	TO STUDY OF THE ROUTING PROTOCOL FOR MOBILITY AND LOAD MANAGEMENT FOR MANET.
9	AKSHAY GOLECHHA	Raj Kumar Gupta	VISUAL SYSTEM FOR MOBILE ROBOTS
10	AKSHAY KATTA	Subhashish Gangopadhyay	OXIDATION/CORROSION OF METALS AND SEMICONDUCTORS
11	AKSHIT BORDIA	Kamlesh Tiwari	CONTENT TAGGER AND ANALYSER (MAPMYINDIA SPONSORED)
12	AKSHIT DEEP SINGH	Shibasish Chowdhury	USING MACHINE LEARNING TECHNIQUES TO EXPLAIN PREFERENTIAL BINDING OF MIRNA TO MRNA
13	AKSHIT KUMAR	J L Raheja	PORTABLE HEART DISEASE DETECTION SYSTEM
14	AMAN KUMAR RANA	Madhukar Mishra	STUDY ON STANDARD MODEL OF COSMOLOGY.
15	AMEY DIPAK AGRAWAL	Kamlesh Tiwari	REINFORCEMENT LEARNING FOR DYNAMIC LEARNING RATE CONTROL
16	AMIT TIWARY	Meghana Tare	STUDY OF DIFFERENT PATHOLOGIES AND THEIR CLASSIFICATION IN CHEST X-RAY IMAGES
17	AMITOJDEEP SINGH	NV Muralidhar Rao	TO STUDY CAUSALITY BETWEEN TRANSPORT INFRASTRUCTURE AND GROWTH IN INDIA
18	ANAMYA AGARWAL	Krishnendra Shekhawat	A STUDY OF RECTANGULAR DUAL GRAPHS
19	ANANYA DHAKA	Jayashree Mahesh	UNDERSTANDING FACTORS OTHER THAN CULTURE THAT ARE INFLUENCING MANAGERIAL PERCEPTION

Special Project			
S. No.	Name of Student	Faculty Name	Project Title
			AND BEHAVIOUR
20	ANIMESH JAIN	Uma S Dubey	MYOELECTRIC EXOSKELETONS
21	ANIRUDH TUSNIAL	Abhijit K Digalwar	LEAN AND AGILE MANUFACTURING
22	ANKIT AGARWAL	Meghana Tare	EXPLORING FERROPTOSIS IN DEVELOPMENT AND DISEASE.
23	ANUBHAV ELHENCE	RR Mishra	SELECTED TOPICS IN ADVANCED QUANTUM MECHANICS
24	ARINDAM KR BHATTACHARJEE	Hemant R Jadhav	REACTIVE ASTROGLIOSIS AND INFLAMMATION IN ALZHEIMERS DISEASE
25	ARNAV SETHI	Vishal Saxena	COMPARATIVE ANALYSIS OF APICOPLAST GENOME FROM PLASMODIUM SPECIES
26	ASHISH AMAN	Madhukar Mishra	GLAUBER MODEL IN HEAVY-ION COLLISION EXPERIMENTS
27	ASHISH BANSAL	Biswanath Layek	INSTRUMENTATION OF PARTICLE DETECTORS AND DETECTION OF PARTICLES
28	ASHIT SHRIVASTAVA	NV Muralidhar Rao	BLOCKCHAIN AND INSURANCE
29	ASIM PATNAIK	Ashutosh Kar	ADVANCED SIGNAL PROCESS ALGORITHM FOR ACOUSTIC ECHO CANCELLATION
30	ATUL JALA	Kuldip Singh Sangwan	DEVELOPMENT OF FILAMENT FOR ADDITIVE MANUFACTURING FROM PLASTIC WASTE
31	AVINASH PATI	Arvind Kumar Sharma	ATTRITION OF PARTICLES IN A RE-CIRCULATING FLUIDIZED BED(RCFB)
32	AYUSH DWIVEDI	Sunil Kumar Dubey	MERGERS AND AQUISITIONS IMPACT ECONOMY.
33	AYUSH RATHORE	Archana K K	CANNABINOIDS- THERAPEUTIC POTENTIAL AND ETHICAL CONSIDERATIONS
34	AYUSHI AGARWAL	Suresh Gupta	APPLICATION OF CFD IN BIOREACTOR.
35	BHAVESH MANOJ MUNOT	Meghana Tare	ANALYSIS OF BIOLOGICAL NETWORKS
36	CHAITANYA MAHESHWARI	Shibasish Chowdhury	APPLICATION OF MACHINE LEARNING TECHNIQUES TO EXPLAIN PREFERENTIAL BINDING OF MIRNA TO MRNA
37	CHILUKURI RAJA VENKATA MANIKANTA VIHARI	Pankaj Kumar Sharma	DEVELOPING EFFECTIVE PEDAGOGICAL METHODS IN BIOLOGY.
38	CHINMAY SANJAY DESHMUKH	Navin Singh	OBJECT DETECTION IN UAV VIDEOS.
39	CHIRAG KHATRI	Madhukar Mishra	THE GLAUBER MODEL IN BIGGER ION COLLISION AND ITS APPLICATIONS
40	DAKSHESH MEHTA	Rakhee	TO STUDY OF OPTIMAL SERVER ALLOCATION IN MULTI SERVER SYSTEMS WITH TIME VARYING CONNECTIVITIES.
41	DEEPANSHU GURNANI	P Srinivasan	IMPLEMENTING SOLAR ENERGY AS AN ALTERNATIVE FOR CONVENTIONAL ENERGY SOURCES OF ELECTRICITY IN BITS CAMPUS
42	DHRUV RASTOGI	Chandra Shekhar	GRAPH ANALYSIS AND ITS APPLICATIONS
43	EDUMUDI VARSHITH NAIDU	Pankaj Kumar Sharma	DEVELOPMENT OF EFFECTIVE PEDAGOGICAL METHODS IN BIOLOGY
44	G ASHWIN	Devendra Kumar	NUMERICAL STUDY OF BOUNDARY VALUE PROBLEMS FOR PARTIAL DIFFERENTIAL EQUATIONS
45	GARV SACHDEVA	Krishnendra Shekhawat	A STUDY OF RECTANGULAR DUAL GRAPHS
46	GOKAVARAPU SAI SIRISH	Sudeshna M Choudhury	AUTOPHAGY AND DISEASES
47	GOURAV BANSAL	Uma S Dubey	BIOINFORMATICS ANALYSIS OF MILK PROTEINS
48	HARSH GROVER	Tapomoy G Sarkar	CONSTRAINING ACCELERATED EXPANSION OF UNIVERSE USING MARKOV-CHAIN MONTE CARLO SIMULATIONS IN COSMOMC.
49	HARSH JAISWAL	Puneet Mishra	DEVELOPMENT OF ADAPTIVE INTELLIGENT CONTROL SCHEME FOR CONTROL APPLICATIONS
50	HARSH KANODIA	Arvind Kumar Sharma	GAS-LIQUID CONTACTORS FOR AEROBIC BIO-PROCESSES.
51	ISHA SHYAM NARSARIA	Prasanta Kumar Sahu	EVALUATION OF PERFORMANCE MEASURE TO COMPARE OLD AND PROPOSED BUS ROUTE SYSTEM
52	JOY MUKHERJEE	D Bandyopadhyay	DENSITY FUNCTIONAL MODEL OF NANOCCLUSERS AND NANOTUBES USEFUL FOR POLLUTANT ABSORPTION



Special Project			
S. No.	Name of Student	Faculty Name	Project Title
53	KANNAN.A	Aniruddha Roy	ROLE OF AUTOPHAGY IN CANCER CELLS FOR DRUG RESISTANCE
54	KAPIL AGARWAL	Sandhya Marathe	UNDERSTANDING SEX SPECIFIC ENERGY INVESTMENT PATTERNS IN BIRDS AND ITS CORRELAION WITH SEXUAL DIMORPHISM.
55	KAPIL AGRAWAL	Rajneesh Kumar	MICROECONOMIC STUDY & SOCIAL IMPACT OF SOLAR ENERGY PLANTS IN INDIA
56	KHANDELWAL SHRIKANT MAHESH	Manjuladevi V	STUDY OF NANOCOMPOSITES: SYNTHESIS, STRUCTURE AND APPLICATIONS
57	KSHITIJ CHANDAK	G Muthukumar	STABILITY OF COLUMNS SUBJECTED TO EARTHQUAKE AND FIRE LOADS
58	KUMAR SHRESHTHA	Shibasish Chowdhury	USING MACHINE LEARNING TECHNIQUES TO EXPLAIN PREFERENTIAL BINDING OF MIRNA TO MRNA
59	KUNAL BANSAL	Ashish Tiwari	MATHEMATICAL ANALYSIS OF FLOW OF YIELD STRESS FLUIDS THROUGH STENOTIC ARTERIES WITH RIGID OR PERMEABLE WALLS.
60	LAKSHAY KUMAR	Dipendu Bhunia	TO STUDY THE BEHAVIOR OF COUPLING OF BEAMS TO STUDY THE BEHAVIOR OF COUPLING OF SHEAR WALL
61	LAVKUSH UPADHYAY	Sunil Kumar Dubey	IMPLICATIONS OF STATISTICAL TOOLS IN PHARMACOKINETICS & PHARMACODYNAMICS(PK/PD) STUDIES
62	LINU P SAJI	Jayashree Mahesh	IMPACT OF CULTURE ON MANAGERIAL PERCEPTION AND BEHAVIOUR
63	MAITRI SHASTRI	Saumi Ray	WATER PURIFICATION
64	MANAN SINGHAL	Shivi Agarwal	APPLICATION OF DEA (DATA ENVELOPMENT ANALYSIS) IN PMGSY(PRADHANMANTRI GRAM SADAK YOJNA)
65	MARAMREDDY RAHUL REDDY	Rajdeep Chowdhury	INSILICO ANALYSIS OF EXPRESSION DATA BETWEEN DIFFERENT CANCER SUBTYPES
66	MAYANK VIKHONA	Anupam Singhal	REVIEW AND CASE STUDIES ON GROUNDWATER MODELLING TECHNIQUES
67	MD ADNAN KHAN	Meghana Tare	MATHEMATICAL MODELING OF CELL APOPTOSIS
68	MEHTA SANSKAR MAHESH	Rajesh Kumar	STABILITY ANALYSIS OF COMPOSITE PLATE REINFORCED WITH CARBON NANO TUBES
69	MISHRA ANJUL ANJANIKUMAR	Surabhi Koul	SUPPLY CHAIN PRACTICES BY SMALL RETAILERS
70	MITUL SHARMA	Tapomoy G Sarkar	HOMOGENEOUS AND ISOTROPIC COSMOLOGY
71	MOHIT JAISWANI	Anu Gupta	STUDY ANALYSIS AND DESIGN OF HIGH-PERFORMANCE SELF CASCODE MOSFET
72	MUSTUFA LOKHANDWALA	Saumi Ray	MODEL SYSTEMS MIMICS AND PROBES OF BIOLOGICAL SYSTEMS.
73	NALIN RAJEEV MITTAL	Krishnendra Shekhawat	A STUDY OF CARTOGRAMS
74	NAMAN SEHGAL	Sangeeta Sharma	EFFECTIVE TECHNIQUES USED IN ONLINE MARKETING
75	NAYAN GUPTA	C B Gupta	PORTFOLIO OPTIMIZATION AND ANALYSIS OF CRYPTOCURRENCIES
76	NIKHIL BIYANI	Abhijit K Digalwar	READINESS OF INDIAN MANUFACTURING ORGANISATIONS FOR INDUSTRY 4.0
77	NIKHITA ANAND	Murali M Pandey	CHARACTERIZATION OF SOLID DISPERSION.
78	NIKUNJ AGARWAL	Satyendra Kr Sharma	PATH OPTIMIZATION FOR DELIVERY SYSTEM IN B2C E-COMMERCE
79	NITIN MANKANI	Madhukar Mishra	ENERGY LOSS OF QUARKS AND GLUONS IN QUARK GLUON PLASMA
80	NITISH KUNDALA	NV Muralidhar Rao	IMPLICATIONS OF BLOCKCHAIN TECHNOLOGY IN THE DERIVATIVE MARKET
81	PARATE PARIKSHIT RAVI	Anu Gupta	STUDY ANALYSIS AND DESIGN OF MOSFET AS A HIGH PERFORMANCE SWITCH IN ANALOG CIRCUITS.
82	PARIKH CHIRAG HITESH	Sudeshna M Choudhury	AUTOPHAGY & CHEMORESISTANCE
83	PIYUSH DUSAD	Vishal Saxena	STUDY ON MEDICAL DIALYSIS TECHNIQUE
84	PRANATI JAIN	Amol Holkundkar	STUDY OF QUANTUM FIELD THEORY
85	PRANAV CHATURVEDI	Sharad Srivastava	QUANTIFYING THE FRICTIONAL FORCES BETWEEN SKIN AND NONWOVEN FABRIC
86	PRANAV DIWAKAR	J N Bandopadhyay	STUDY OF MANY BODY LOCALISATION AND THERMALISATION IN SPIN CHAINS
87	PRANAV PANDEY	Jitender Kumar	A STUDY OF COMMUTING GRAPHS ON SEMI GROUPS- II

Special Project			
S. No.	Name of Student	Faculty Name	Project Title
88	PRATIM PATHAK	Murali M Pandey	"COST-EFFECTIVENESS ANALYSIS OF DIABETES IN INDIA"
89	PRAYAAG R. KATTA	Subhashish Gangopadhyay	GRAPHENE; GROWTH, PROPERTIES, AND APPLICATIONS
90	PULKIT SHARMA	Vishal Saxena	CANCER CELL DIAGNOSIS USING BIOIMAGING
91	PUREKAR ANIRUDDHA SUNIL	Meghana Tare	UNDERSTANDING ROLE OF INDIAN HERBAL COMPOUNDS IN HEALTH AND THERAPEUTIC AGENTS
92	RADHIKA PASARI	Mahesh Angira	TEST
93	RADHIKA SONI	Hemant R Jadhav	NEW DEVELOPMENTS IN BROMODOMAIN INHIBITORS.
94	RAGHAV SHARMA	Kaushar Vaidya	ESTIMATION OF PHYSICAL PARAMETERS OF PRE-MAIN SEQUENCE STARS USING SPECTRAL ENERGY DISTRIBUTION MODELLING
95	RAJAT JAIN	Krishnendra Shekhawat	A STUDY OF CARTOGRAMS
96	RAJAT PANDEY	Shilpi Garg	TUBULINS AND ITS HOMOLOGS IN PROKARYOTIC SYSTEM
97	RASAL KUMAR	Ashutosh Kar	ADVANCED SIGNAL PROCESSING ALGORITHMS FOR ACOUSTIC ECHO CANCELLATION
98	REETIKA SRIVASTAVA	Biswanath Layek	AN EMPIRICAL STUDY OF THE LIFE CYCLE OF A STAR
99	RISHAV UTKARSH	RR Mishra	SELECTED TOPICS IN ADVANCED QUANTUM MECHANICS
100	RITIK JAIN	RR Mishra	SELECTED TOPICS IN ADVANCED QUANTUM MECHANICS
101	ROBIN ARORA	Shilpi Garg	EPIGENETICS IN PLASMODIUM
102	ROHIT LODHA	J L Raheja	PORTABLE HEART DISEASE DETECTION SYSTEM
103	S.HARIHARAN	Sangeeta Sharma	EFFECTIVE TECHNIQUES USED IN ONLINE MARKETING
104	SAGANE RUTUJ KISHOR	Arun Kumar Vaish	DO THE FUND MANAGERS DESERVE THE FAT COMPENSATION THEY RECEIVE:EVIDENCE FROM MUTUAL FUND INDIA
105	SAHAJ SRIVASTAVA	Santanu Chaudhary	USE OF CAPSULE NETWORKS IN FACE RECOGNITION
106	SAHIL KUMAR	Kuldip Singh Sangwan	DEVELOPMENT OF ENERGY MEASUREMENT MODEL FOR TURNING CENTER
107	SAHIL TYAGI	Uma S Dubey	PRESERVATION OF IMMUNOLOGICAL PROPERTIES OF MILK.
108	SAMAKSHI TIWARI	Sandhya Marathe	ANALYSIS OF REASONS BEHIND DIVERSITY OF BIRDS.
109	SAMKSHA BHARDWAJ	Shamik Chakraborty	A DETAILED ANALYSIS OF CHEMICAL NETWORKS AND MOLECULAR INTERACTIONS IN SPACE
110	Samridhi	D Bandyopadhyay	DENSITY FUNCTION MODELLING FOR NANOCLUSTERS OR NANOTUBES USED AS POLLUTANT ABSORBENTS.
111	SANCHIT BAJAJ	Meghana Tare	EXPLORING THE MITOCHONDRIAL TARGETS OF PARKIN AND PINK1 IN APOPTOSIS DURING NEURODEGENERATION.
112	SANSKRITI CHITRANSH	Jayendra N Bandyopadhyay	AN INITIAL STUDY OF THE PHYSICS AND PRINCIPLES OF THE OPERATION OF QUANTIZED SUPERCONDUCTING ELECTRICAL CIRCUITS
113	SAURAV SHAKTI BORAH	Madhukar Mishra	CHALLENGES AND CURRENT STATUS OF NUCLEAR FUSION BASED REACTORS
114	SHETGAONKAR HRISHIKESH DIGAMBAR	Tapomoy G Sarkar	STUDY OF INTERGALACTIC MEDIUM.
115	SHIVAM CHAUBEY	Rajneesh Choubisa	COMPARISON OF U.S & INDIAN ELECTION: POLITICAL PSYCHOLOGY PERSPECTIVE.
116	SHIVAM SINGHAL	Ajit Pratap Singh	UNDERSTANDING ECONOMIC MECHANISM OF MANAGING WATER RESOURCES
117	SHREY BIPIN SHAH	Shibasish Chowdhury	USING MACHINE LEARNING TECHNIQUES TO EXPLAIN PREFERENTIAL BINDING OF MIRNA TO MRNA.
118	SHREYAS HEJIB	Surabhi Koul	CHANNEL LOYALTY IN OMNICHANNEL RETAILING
119	SHREYASH ANAND	C B Gupta	PORTFOLIO OPTIMIZATION & ANALYSIS OF CRYPTOCURRENCIES
120	SHRUTI SAMIRKANT SHAH	Deepak Chitkara	TARGETTING CSCS IN GBM: APPLICATIONS OF NANOTECHNOLOGY

Special Project			
S. No.	Name of Student	Faculty Name	Project Title
121	SHRUTI VERMA	Pankaj Kumar Sharma	PRACTICAL APPROACHES TOWARDS SUSTAINABLE DEVELOPMENT
122	SHUBHAM GARG	Rajesh P Mishra	STOCHASTIC MODELLING OF INVENTORY OF DETERIORATING ITEMS.
123	SHUBHAM GUPTA	Raj Kumar Gupta	VISION SYSTEM OF MOBILE ROBOTS.
124	SHUBHAM RAJ	Anupam Singhal	LOGISTIC MANAGEMENT OF SOLID WASTE.
125	SIDDHANT THAKURIA	Sandhya Marathe	STUDYING BIODIVERSITY AND ITS CONSERVATION IN INDIA
126	SIDDHARTH SINGH	RR Mishra	SELECTED TOPICS IN ADVANCED QUANTUM MECHANICS.
127	SINHA VAIBHAV SANJEEV	NV Muralidhar Rao	IMPLICATION OF BLOCK-CHAIN TECHNOLOGY IN FINANCIAL DERIVATIVE MARKETS.
128	SISHIR SURESH MOHAMMED	Manoj Soni	SOCIO-ENVIRONMENTAL ANALYSIS OF SOLAR ENERGY SYSTEMS
129	SMRITI SHARMA	Madhukar Mishra	STUDY OF SYMMETRIES AND GROUP THEORY
130	SOUMIL GUPTA	Surabhi Koul	SUPPLY CHAIN PRACTICES BY SMALL RETAILERS
131	SREEMOYEE GHOSH	Aniruddha Roy	IMMUNOTHERAPY OF CANCER
132	SRISHTI SHARMA	Archana K K	CELL CULTURE TECHNIQUES
133	SUNITA BUGALIA	K Hari Babu	DESIGN AND DEVELOPMENT OF WEB FRAMEWORK FOR HANDLING THESIS DATA LIFE CYCLE
134	SURAJ BANSAL	Pankaj Kumar Sharma	USING BIOMIMICRY TO MAKE GREEN BUILDINGS MORE SUSTAINABLE.
135	SURBHIT JOHRI	Pawan K Ajmera	STUDY OF BIOMETRIC SYSTEM-IRIS RECOGNITION
136	SUSHANT GUPTA	Vishal Saxena	STUDY ON MEDICAL DIALYSIS TECHNIQUE.
137	SUSHEEM KOUL	JI Raheja	PORTABLE HEART DISEASE DETECTION SYSTEM
138	SUYASH KIRTI	Arvind Kumar Sharma	GAS- LIQUID CONTACTORS FOR AEROBIC BIO-PROCESSES
139	TANIA NANDI	Anupama Mittal	THERAPEUTIC INTERVENTIONS FOR THE TREATMENT OF DESMOPLASIA IN PANCREATIC CANCER.
140	TANMAY JAISWAL	G Muthukumar	STABILITY OF COLUMNS SUBJECTED TO FIRE AND EARTHQUAKE LOADS
141	UTKARSH AGRAWAL	Satyendra Kr Sharma	APPLICATION OF MACHINE LEARNING TECHNIQUES FOR DEMAND FORECASTING
142	VIBHAV ANAND	Rajesh P Mishra	STOCHASTIC MODELING OF DETERIORATING INVENTORY ITEMS.
143	VIGNESH JAYARAMAN	Sandhya Marathe	EXPLORING BACTERIAL CRISPR-CAS AND BACTERIOPHAGES AS POTENTIAL THERAPEUTICS
144	VIHANG SNEHAL SHAH	Manjuladevi V	RADAR SYSTEMS IN SELF DRIVING CARS.
145	VISHAL GOLCHA	Kamlesh Tiwari	CONTENT TAGGER MAP MY INDIA
146	VISHAL GOLCHA	Navin Singh	OBJECT DETECTION IN UAV VIDEOS USING HIDDEN MARKOV MODELS
147	VISHAL SURANA	Archana K K	STEM CELLS- GENERATION, CHARACTERIZATION, PROPAGATION, THERAPEUTIC POTENTIAL AND ETHICAL CONSIDERATIONS.
148	VIVEK G NAYAK	Jitender Kumar	STUDY OF DISJUNCTIVE SET PROBLEM
149	VIVEK SINGHVI	JI Raheja	PORTABLE HEART DISEASE DETECTION SYSTEM
150	YAJAT DAWAR	Rajiv Kumar	SVD OF MATRICES, LOW RANK APPROXIMATION AND CLUSTERING
151	YUGANDHAR MORESHWAR KHODKE	Arnab Hazra	STUDY ON MULTILAYER GRAPHENE NANORIBBONS FOR ON-CHIP INTERCONNECTS

**NEW COURSES / PROGRAMS INTRODUCED IN THE YEAR 2018**

**1. New / Modified Courses:**

S.No.	Course No.	Course Title & Description	L	P	U
1	BITS F315	Introduction to Cognitive Neuroscience	3	0	3
2	CE F230	Civil Engineering Materials	3	2	4
3	CE F231	Fluid Mechanics	3	0	3
4	CE F320	Design of Reinforced Concrete Structures	3	0	3
5	CE F321	Engineering Hydrology	3	0	3
6	CHEM F320	Introductory Computational Chemistry Laboratory	0	4	2
7	CHEM F430	Atmospheric Chemistry	3	0	3
8	CHEM F431	Sustainable Chemistry using Renewables	3	0	3
9	CS F320	Foundations of Data Science	3	0	3
10	EEE F411	Internet of Things	3	1	4
11	EEE G641	Applied Estimation Theory	3	2	5
12	HSS F361	Urban Policy and Governance	3	0	3
13	HSS F362	Local Governance and Participation	3	0	3
14	HSS F363	Disaster and Development	3	0	3
15	HSS F364	Political Economy of Gulf Cooperation Council States	3	0	3
16	HSS F365	Science of Sustainable Happiness	3	0	3
17	HSS F368	Asian Cinemas and Cultures	3	0	3
18	HSS F369	Caste and Gender in India	3	0	3
19	MATH F432	Applied Statistical Methods	3	0	3
20	ME F340	Introduction to Sports Engineering	3	0	3
21	ME F414	Fuel Cell Science and Technology			3*
22	PHA G546	Pharmaceutical Biostatistics	3	0	3
23	PHA G547	Quality-by-Design in Pharmaceutical Product Development	3	2	5
24	PHY F431	Geometrical Methods in Physics	3	0	3
25	PHY F432	Classical Theory of Fields: A Symmetry Perspective			4*

**2. New / Modified Minor Programs:**

S.No.	Name	Description	Courses & Units Required
1.	<b>Minor in Public Policy</b>	The Minor in Public Policy aims at providing the students a clear and contextualized understanding of conceptual and empirical aspects of public policy, the nature of public policy interventions in India and their varying impacts. Also, it intends to provide the students an understanding of the dynamics of policymaking, central aspects of governance and core features and functions of institutions, and equip them with skills of policy analysis.	<b>5 courses (min) 15 units (min)</b>
2.	<b>Minor in Data Science</b>	The minor in Data Science aims to enable students to learn the basic skills required by Data Scientist for today's world. Data Science is becoming ubiquitous to all kinds of industry and opening up new avenues of business. This minor will help students to apply knowledge from Mathematics, Statistics and Computing for analyzing data collected from different kinds of sources in their respective engineering applications and make meaningful and actionable insights.	<b>5 courses (min) 15 units (min)</b>

## INVITED TALKS ARRANGED BY THE DEPARTMENT

### 1. Department of Management

1. Paurav Shukla, Professor, Southampton Business School, Luxury Marketing, 10-Feb-18.
2. Mr. Gaurang Mehta, Executive Director, Axis Capital Ltd, Work life balance and the industry, 23rd March 2018.
3. Mr. Vineet Sehgal, Senior Director, Human capital, PWC Work place and work force of future, 24th March 2018.
4. Mr. Saurabh Nigam, Key account manager, Ericsson India, Artificial Intelligence and analytics, 25<sup>th</sup> March 2018.
5. Prof Bhaskar Bose, Management Consultant, Thinking and Creativity, 24<sup>th</sup> March 2018.
6. Mr. K.V. Rao, Co-Founder, Epicenter technologies Ltd, President of AIPC, Challenges faced in initial phase of startups, 24<sup>th</sup> March 2018.
7. Prasad Padmanabhan, Professor, St. Mary's University, Finance, 4 Aug 2018 - 5 Aug 2018.
8. Rajiv Gupta, Professor, WILP BITS Pilani, Deming and Quality, 10<sup>th</sup> August 2018.
9. Prof. Sharad Sarin, Professor of Marketing and Strategic Management, XLRI, Career in Management, 15<sup>th</sup> Oct 2018.
10. Suresh Kabra, Founder, Pricemap, Go to Market Strategy for start ups, 22-Oct-18.
11. Sanjay Kaul, Ex- Country Head, Apple India and CEO of Sofyx, Journey and Imperative for Leading in Organizations, 24th Oct 2018.
12. Satyen Sharma, Head, Accounts & Finance, BITS Pilani, Pilani Campus, Financial Accounting, 25th Oct 2018.
13. Dr. Kiranmai Pendyala, Corporate Vice President - HR & Member, Board of Directors, AMD India, Organization culture in the age of technology and cross cultural teams, 12<sup>th</sup> Nov 2018.
14. Krishnamurthy Bindumadhavan, Associate Professor, WILP, BITS Pilani, Financial Accounting & Corporate Finance, 13 Nov - 14 Nov 2018.
15. Varindra Sewak, Director, BLS International Services, Marketing, 21-Nov-18.
16. Sunil Rangreji, Sr. Director (IT), Informatics, Design Thinking and Blue Ocean Strategy, 23 Nov 2018 & 26 Nov 2018.
17. Pawan Budhwar, Professor, Aston Business School & Joint Director, Aston India Centre for Applied Research, Collaborative Opportunities with Aston University, 27-Dec-18.

### 2. Department of Pharmacy

18. Translational/Clinical Pharmacokinetics Studies to Facilitate Oncology Drug Development" by Prof. Pankaj Desai (Professor of 'Pharmacokinetics and Biopharmaceutics', University of Cincinnati) on 17th November 2018.
19. "Delivery of Biopharmaceuticals" Dr. Sachin Dubey (Head of Formulation, Analytical and Drug Product Development, Glenmark Pharmaceuticals, Switzerland) on 1st November, 2018

### 3. Department: Electrical and Electronics Engineering

20. Talk on "Simple Problems, Complex Solutions, in Networking and Computing" by Prof. Arun K. Somani, Distinguish Professor, Department of ECE, Iowa State University, Ames, Iowa, USA on 31st January 2018.
21. Talk on "Confluence of Science, Engineering, and Medicine: A personal perspective" by Prof. Rajiv Gupta, Professor, Neuro and Emergency Radiology, Massachusetts General Hospital, Boston, USA on 4th April 2018.
22. Talk on "Supervisory Control of xEVs: Challenges and Prospects" by Prof. Siddhartha Mukhopadhyay, Professor, Department of Electrical Engineering, IIT Kharagpur on 19th September 2018.
23. Talk on "Transistor Based Sensors and 2D Materials and Devices" by Prof. Yossi Rosenwaks, Dean, Faculty of Engineering, Tel-Aviv University, Israel on 29th October 2018.
24. A Talk by Sh. Kishore Kumar Gupta on "Opportunities and Challenges in Technology-Driven Entrepreneurship" on 14th November 2018.

#### 4. Department of Biological Sciences

46. (15 Jan) Dr. Alan M Punnoose, Assistant Professor, Centre for Regenerative Medicine and Stem Cell Research Central Research Facility, Sri Ramachandra Medical College and Research Institute, Porur, Chennai delivered a talk on 'Tissue Engineering in the Cardiovascular System - " Mending a broken heart"
47. (31 July) Dr. Indrashis Bhattacharya, Assistant Professor, Garhwal University delivered a Lecture titled "Pubertal Orchestration of Hormones and Testis: Lessons from Rodents to Primates" at Dept. of Biological Sciences, BITS, Pilani, Rajasthan on 31st July, 2018
48. (25th Aug)Dr. Arpana Jha from Indian Institute of Science & Education Research, Mohali delivered a guest lecture on 'A suite of enzymes for the treatment of plant-derived biomass and generation of value-added products' at Dept. of Biological Sciences, BITS, Pilani, Rajasthan on 25th August, 2018.
49. (25th Aug) Ms. Zara Bukhari and Mr. Debabrat Sabat (BITS Alumini) working at Biocon Pvt. Ltd., Bangalore delivered an online talk on 'Career in Biotechnology Industry' and interacted with ME, Biotechnology students for career guidance on 25th August, 2018.
50. (31st August-3rd September) Prof. Suresh Arya, NHI, USA, Delivered a series of lectures on Synthetic Biology.
51. (31st October, 2018) Prof. John H. Adams, USF, Tampa, USA delivered an Invited talk on "Whole genome forward genetic screens of Plasmodium falciparum identifies and prioritizes antimalarial drug targets"
52. (2-3 November) Dr. Sandeep Gaudana Project Lead, Synthetic Biology at Reliance Industries Limited interacted with ME Biotechnology, 2nd year students on 2-3 November, 2018
53. (16th November, 2018) Prof. Raghav Rao Malla, NIH, USA delivered a talk on Global Challenges and Novel Technologies for Infectious Diseases
54. (16th November, 2018) Dr. Shailja Singh, JNU, New Delhi delivered a talk on Cellular and molecular basis of the host-pathogen interactions: Unfolding new definitions towards therapeutic intervention strategies.
55. (26th November) Nadira Karunaweera, Senior Professor and Chair and Visiting Scientist Harvard School of Public Health, Department of Parasitology, Faculty of Medicine, University of Colombo visited the department and delivered a talk on 'Vector borne parasitic disease trends in Sri Lanka : successes and challenges.

#### 5. Department of Humanities and Social Sciences:

56. Sangeeta Sharma, Invited Meghna darbara CEO "Make the world wonderful" to deliver talk to creative thinking students on 12<sup>th</sup> September 2018
57. Sangeeta Sharma, Invited Ms Payal Randhawa, Executive Director, Resource Alliance to deliver a talk on social entrepreneurship on 5<sup>th</sup> November 2018
58. Sangeeta Sharma, Invited Raghav Mimani for panel discussion on" life at BITS Pilani" on 29<sup>th</sup> July 2018.

#### 6. Department of Mathematics

59. Prof. Vijay M. Patankar (JNU Delhi) delivered an invited talk on "Matrix groups having integer coefficients and their actions with applications to primes that can be written as sum of two squares" on 19-March, 2018.
60. Prof. G Rangarajan (IISC Bangalore) delivered an invited talk on ""Sparse Network Representation of High Dimensional Time Series Data" on 15-October, 2018.
61. Prof. Joydev Chattopadhyay (ISI Kolkata) delivered an invited talk on "Ecological Modelling: Past, Present, and Future" on 02-November, 2018.

#### 7. Department of Computer Science and Informaiton Systems

62. Dr. Anand Rao, distinguished allumini awardee of BITS Pilani gave a lecture on "Challenges in AI and ML" on Dec 10, 2018

#### 8. Department of Chemistry

63. B. L. V. Prasad, Catalysis Division, NCL Pune, Appropriately "dressed" functional nanoparticles: Molecular tools for the manipulation of size, surface chemistry and assemblies of metal nanoparticles, 27/08/18.
64. Prof. J. N. Moorthy, IIT Kanpur, Functional Materials Bottom-up de NOVO molecular design, 19.11.2018.

### **9. Department of Mechanical**

64. Prof. Chandramouli P., IIT Madras, Prof. A. R. Mohanty, IIT Kharagpur and Dr. Lokesh Agrawal, NBC bearings two day workshop on "Condition monitoring and NVH". 14-15 February 2018.
65. Dr. Lokesh Agrawal, NBC bearings, "Industry asset management through condition monitoring", 14 February 2018.
66. Ms Maja Neubert, Technical University of Chemnitz Germany, "Why do we need sports engineering", 21 October 2018.
67. Mr. Vikram Bhargava, ex-director of mechanical engineering services at Motorola Solutions in Holtsville, NY, "Introduction to Six Sigma", 12 November 2018.
68. Mr. Vikram Bhargava, ex-director of mechanical engineering services at Motorola Solutions in Holtsville, NY, "Plastics Engineering", 12 November 2018

### **10. Department of Civil Engineering**

69. Mr. Sanjay Jindal, Director Consulting Engineers Group, Jaipur interacted with Higher Degree students and shared his thoughts about the growing infrastructure of our country and as well as on the skill sets demanded by the industry on March 12<sup>th</sup>, 2018.
70. Dr. Tarun Rambha, Assistant Professor, IISc Bangalore has interacted with Higher Degree students and delivered a talk on "Ride sharing" at BITS Pilani- Pilani campus and connected other campus through Tele-presence class room on November 5, 2018.
71. Prof Avijit Mukerjee of Curtin University, Australia visited BITS Pilani and interacted with Civil Engineering faculty to explore mutual research opportunities on December 13, 2018.

### **11. Department of Chemical Engineering**

72. Expert lecture series of three lectures by Mr. Kabidas Mandalon Ex. Chief General Manager (Optimization) IOCL. "Petroleum Processing". 17th-18th Sep. 2018.
73. Expert Lecture by Mr Ganpati Kamble, Technical Head, Josts Engineering Com Ltd, "Latest Fluid Dynamic Imaging Techniques used in Research and Industry". 4th April 2018.

### **12. Department of Physics**

74. Dr Yogesh Kumar, Assistant Professor, ARSD college, Delhi University was invited by the department. He delivered invited lecture on "Background, Fundamental Understanding and Progress in Electrochemical Capacitors" on 29th December, 2018.
75. Prof Deshdeep Sahdev, Professor (superannuated) of IIT Kanpur and CEO of Quazar Technologies was invited in March 2018. He delivered a talk on a topic "Was our Cosmic Dawn Extra – Dimensional?"
76. Dr. K. L. Kandoi, Alumnus (1966), Managing Director, Quaser Electronics Pvt Ltd, 1st Oct-29th Nov 2018
77. Prof. Didier Sébilleau, Département Matériaux-Nanosciences, Scientist, To work with Rakesh Choubisa's group including joint PhD supervision, Institut de Physique de Rennes, 17th Oct-20th Oct 2018
78. Prof. Wen-Ping Chen, National Central University, Taiwan, Professor, 26th November 2018
79. Prof CS Shastry, Amrita University, Adjunct Professor, 27-29 Dec 2018.

### **13. Department of Economics & Finance**

80. Dr. Rajat Kathuria, Director and Chief Executive, Indian Council for Research on International Economic Relations, Analyzing the Union Budget: 2018.
81. Ms. Manasi Kirloskar, Executive Director and CEO, Kirloskar Systems Limited, Women Empowerment in Business Sector.
82. Dr. Vijay Kedia, Renowned Indian investor trader, Introduction to Investment & Trading.
83. Mr. Vishal Kamat, CEO, Kamat Group of Hotels, Leading an Enterprise in India.
84. Mr. Sanjeev Kapoor, Chief Strategy and Commercial Officer, Vistara, Revival of Spice jet & Rise of Vistara.
85. Dr. Mukesh Garg, Professor at Monash University, Australia, Opportunities in India: An Australian Perspective.
86. Dr. Harish Kumar, BITS Alumnus and Advisor of ALPHABETA, a New York based FinTech Company, Managing Portfolios and Investments.
87. Mr. Parag Jain, Advisor for Avendus Group, USA and a former Official at SEBI, Risk Management in Indian Stock Market.

**LIST OF FIRST DEGREE THESIS COMPLETED DURING THE YEAR 2018****Second Semester 2017-18**

S.no	Bits id	Name	Topic	Supervisor	Department
1	2013B1A10237P	VINAY KHANDLWAL	Studying on interaction of milk lactoferrin with other molecules by docking studies	UMA S DUBEY	BIOLOGY
2	2013B1A1226P	SIDDHANT MEHANDRU	Evolution of plant architecture	RAJESH MEHROTRA	BIOLOGY
3	2013B1A1238P	ARNAB CHAKRABORTY	Conversion of carbon containing compounds into valuable products using bacteria.	SURESH GUPTA	CHEMICAL
4	2013B1A1408P	LAKHYA SHARMA	Studies on vaccine candidate antigen genes (TRAP) & hypothetical protein from plasmodium species	VISHAL SAXENA	BIOLOGY
5	2013B1A1837P	SHIVI JAIN	Studies on CO2 mitigation using bacterial route.	SMITA RAGHUVANSHI	CHEMICAL
6	2013B1A1844P	PARIKSHIT JOON	Analysis of cis regulatory element in genome of Arabidopsis thaliana	RAJESH MEHROTRA	BIOLOGY
7	2013B1A1852P	PRIYANK KR. CHAUHAN	Biogas Reforming	SRINIVAS APPARI	CHEMICAL
8	2013B1A1854P	ABHIJEET CHOWDHURY	Bioremediation of industrial waste.	AMIT JAIN	CHEMICAL
9	2013B1A20370P	HIMANSHU SHRIVASTAVA	Analysis of concrete beams reinforced with basalt fibre	G MUTHUKUMAR	CIVIL
10	2013B1A2235P	AKSHAY JHAMB	Analysis of High rise buildings subjected o wind load and various load combinations using ETABS	DIPENDU BHUNIA	CIVIL
11	2013B1A2240P	NISHTHA JAIN	Application of nanoparticles	JITENDRA PANWAR	BIOLOGY
12	2013B1A2291P	AKSHIT ANEJA	Inheritance of memories	RAJESH MEHROTRA	BIOLOGY
13	2013B1A2375P	ROHIT AGRAWAL	Immunotherapy & various clinical applications in gastric cancer	UMA S DUBEY	BIOLOGY
14	2013B1A2375P	ROHIT AGRAWAL	Immunotherapy and various clinical applications in gastric cancer	UMA S DUBEY	BIOLOGY
15	2013B1A2376P	AKSHAT BORDIA	Studies on vaccine candidate antigen gene RESA & hypothetical proteins from plasmodium species	VISHAL SAXENA	BIOLOGY
16	2013B1A2444P	SRIVALLI CHALLU	Water Resource/Environment	SHIBANI KHANRA JHA	CIVIL
17	2013B1A2525P	SAI BHARADWAJ VEDULA	Data mining and bioinformatics analysis for Hub genes for plasmodium species from WGCNA network analysis	A K DAS	BIOLOGY
18	2013B1A3231P	AASHISH PASSRIJA	Studies on surface proteins present on sporozites as vaccine candidates	VISHAL SAXENA	BIOLOGY
19	2013B1A3265P	VANDIT GANDOTRA	Analysis of CCGACA element in modern plant Arabidopsis thaliana	RAJESH MEHROTRA	BIOLOGY
20	2013B1A3356P	SATYAPRIYA SINGH DEO	In silico analysis of chip-seq & RNA seq data for understanding epigenetics in diabetes	SYAMANTAK MAJUMDAR	BIOLOGY
21	2013B1A3409P	SHREYA KAPOOR	Characterization of associative bacteria for plant growth promoting properties	PRAHAHT NATH JHA	BIOLOGY
22	2013B1A3818P	NANDINI TRIPATHI	Sensitizing neural glioblastoma cells with an effective	RAJDEEP CHOWDHURY	BIOLOGY



S.no	Bits id	Name	Topic	Supervisor	Department
			formulation		
23	2013b1a3859P	KARAN RAJPAL	Studies on vaccine candidate antigen genes LSA & AMA-1 in plasmodium species	VISHAL SAXENA	BIOLOGY
24	2013B1A40576	AKSHATY GOYAL	Supply Chain Management	S. ROUTROY	MECH
25	2013B1A40841P	ABHISHEKH PRASAD	Identifying the role of secretion sytem VI in pathogenicity by using gene knockout in model organism C. elegans	PRABHAT NATH JHA	BIOLOGY
26	2013B1A4450P	SHIRSH ZIBBU	Application of neural network in the field of miRNA – mRNA recognition	SHIBASHISH CHOWDHURY	BIOLOGY
27	2013B1A70542P	MANESH NARAYAN K	Metagenomics assembly	DENIS BERTRAND	BIOLOGY
28	2013B1A7401P	SAMYADEEP BASU	Image Camptioning	POONAM GOYAL	CSIS
29	2013B1A7687P	A SAI RAHUL	DNA data storage system	SHIBASHISH CHOWDHURY	BIOLOGY
30	2013B1A7813P	SANJAY GOSH	Understanding miRNA & mRNA regulation in human cancer	RAJDEEP CHOWDHURY	BIOLOGY
31	2013B1A8248P	SAI SHASHANK NARAYANAM	DNA data storage system	SHIBASHISH CHOWDHURY	BIOLOGY
32	2013B1A8817P	TARUN KUMAR VANGANI	DEEP LEARNING	YUE ZHANG	EEE
33	2013B1A8846P	KUNAL PARMANI	Understanding molecular basis of recognition of mRNA BY miRNA	SHIBASHISH CHOWDHURY	BIOLOGY
34	2013B1AB0428P	TANHYA CHITLE	Application of Artificial Intelligence in Mnfg. systems	S. ROUTROY	MECH
35	2013B1AB0864P	ANIKET SINGH	Development of a model for assessment of Mechanical Components Reliability	R. P.MISHRA	MECH
36	2013B1AB374P	SWARN SINGH BHAL	Study of circumsporozite protein in plasmodium	SHILPI GARG	BIOLOGY
37	2013B2A10812P	BAYANA ANOOP MADHAV	Recognition of Hand Drawn Chemical Structures using Supervised Learning.	BHARTI KHUNGAR	CHEMISTRY
38	2013B2A10832P	ANUBHAV NARWAL	Development of inventory management system for chemistry laboratory	BHARTI KHUNGAR	CHEMISTRY
39	2013B2A10849P	ANANT KR. JAIN	Preparation of highly efficient and product specific catalysts for H2 generation & CO2 fixation.	CHEN HSIUNG-HUNG	CHEMICAL
40	2013B2A1782P	DEVANSH AGRAWAL	Synthesis & Optimization of various pathways to produce adipic acid using aspen.	SURESH GUPTA	CHEMICAL
41	2013B2A1843P	VISHAL RAJ	Pyranopyrazoles: their synthesis derivatization and characterization.	PARITOSH SHUKLA	CHEMISTRY
42	2013B2A1853P	NISHANT	Synthesis of Fused Nitrogen Heterocycles.	INDRESH KUMAR	CHEMISTRY
43	2013B2A1855P	BHUPENDER KUMAR	Heak type C-C bond formation reaction catalysed by nano catalysis.	BIBHAS RANJAN SARKAR	CHEMISTRY
44	2013B2A20845	HARSH SHARMA	Optimal solution for reinforced soil structures	RAVIKANT MITTAL	CIVIL
45	2013B2A2815P	THODUPUNOORI AKHIL	Development of Pedagogical Softwares in Quantum Chemistry	PRASHANT U MANOHAR	CHEMISTRY
46	2013B2A2842P	RIJUL DUTTA	Synthesis and Photophysical Studies of heteroaromatic porphyrins.	DALIP KUMAR	CHEMISTRY
47	2013B2A30026P	HARDIK MITTAL	NANORODS BASED SENSOR MATERIAL DEVELOPMENT	ARNAB HAZRA	EEE
48	2013B2A30824P	SARTHAK RAHEJA	Acquiring water quality parameters and water quality assessment modelling	K K GUPTA	EEE
49	2013B2A30838P	HARSH SINGH	Speech recognition -signal	PAWAN K. AJMERA	EEE

S.no	Bits id	Name	Topic	Supervisor	Department
			processing, acoustic modeling, robustness and adaptation.		
50	2013B2A3268P	SANCHIT ADITYA NANGIA	Biometric image processing and feature extraction for knuckle images.	K K GUPTA	EEE
51	2013B2A3412P	YASH MAHAJAN	Amino-catalytic Direct Mannich reaction for the Synthesis of N-Heterocycles.	INDRESH KUMAR	CHEMISTRY
52	2013B2A3426P	PRANAV RAJ PRAKASH	Synthesis of new AIE active mechano luminescent materials & the study of their photophysical properties.	I R LASKAR	CHEMISTRY
53	2013B2A3426P	PRANAV RAJ PRAKASH	Synthesis of new-AIE active mechano luminescent materials and study of their photo-physical properties.	I R LASKAR	CHEMISTRY
54	2013B2A3787P	RUSHIL HANDA	Core-Shell Au-Ag Bimetallic New Particles for Surface enhanced Raman spectroscopy applications.	SUROJIT PANDE	CHEMISTRY
55	2013B2A3797P	ASHVJIT SINGH	Density Functional Reactivity Theory Based Study of Reaction Kinetics and Thermodynamics.	RAM KINKAR ROY	CHEMISTRY
56	2013B2A3828P	TISHAR SINGH		SAUMI RAY	CHEMISTRY
57	2013B2A3840P	SHIVAM ARORA	Co-ordination Chemistry	SAUMI RAY	CHEMISTRY
58	2013B2A40802P	ABHISHEK KATHURIA	Study of Risk Management in Health Care Supply Chain.	VINOD KUMAR	MECH
59	2013B2A40825P	YASHITHA JAISWAL	R programming for Supply Chain	SRIKANTA ROUTROY	MECH
60	2013B2A4224P	ABHISHEK RAJ	Composition and structure of Cu In Se <sub>2</sub> thin films prepared by vacuum evaporation of the constituent elements.	SACHIN U BELGAMWAR	MECH
61	2013B2A4275P	KARTIK GANDHAM	Renewable energy	MANOJ SONI	MECH
62	2013B2A4777P	SURAYANE TIWARI	Development of Energy Efficient Systems for Electrical Vehicles.	A.K.DIGALWAR	MECH
63	2013B2A4814P	SHUBHAM BHARADIA	Nano Palladium (Pd) catalyst Heck coupling reaction.	BIBHAS RANJAN SARKAR	CHEMISTRY
64	2013B2A4816P	AVISH VORA	Probing interactions of gemini surfactants with protein using AIE active molecules.	SUBIT KR. SAHA	CHEMISTRY
65	2013B2A4831P	SHUBHAM AGARWAL	Comparative catalytic properties of host guest systems for oxidation reaction.	SAUMI RAY	CHEMISTRY
66	2013B2A70827P	SRAJIT SAKHUJA	MODULE FOR HARTREE FOCK PROGRAM	RAM KINKAR ROY	CHEMISTRY
67	2013B2A7455P	VEDANT MISHRA	Hand Drawn Molecular Structure Recognition using Deep Learning.	BHARTI KHUNGAR	CHEMISTRY
68	2013B2A80829P	TARUN RAGHAV	Synthesis of AIE Active Polymeric Materials and Study of their Optical Properties.	I R LASKAR	CHEMISTRY
69	2013B2A8799P	GUPTA HARSHIL ASHWANI	Synthesis Characterization and Docking Studies of Tacrine Derivatives.	PARITOSH SHUKLA	CHEMISTRY
70	2013B2A8847	KARAN JAJU		SHAMIK CHAKRABORTY	CHEMISTRY
71	2013B2AB429P	DAULAT DAGA	Studying sonogashira reaction using Nano Pd catalyst.	BIBHAS RANJAN SARKAR	CHEMISTRY
72	2013B2AB835P	PREKSHA AGRAWAL	Supply chain Management	S. ROUTROY	MECH
73	2013B3A10495P	ABHISHEK AGARWAL	Social Impact Assessment	JYOTI	MANGT
74	2013B3A10757P	CHINMAY SINGHAL	The Future of Crypto Currency	ARUN KR VAISH	ECO FIN
75	2013B3A1611P	SUMANT SUHAS	Development of control system	PRATIK N SHETH	CHEMICAL

S.no	Bits id	Name	Topic	Supervisor	Department
		MULKALWAR	for biomass gasification unit		
76	2013B3A1714P	ABHINAV ADARSH	ECONOMICS OF CRYPTOCURRENCY	A K VAISH	ECO FIN
77	2013B3A20596P	A REDDY KUMAR SIMHA	STARTUPS-MARKETING AND EXPANSION	ARUN KUMAR	ECO FIN
78	2013B3A2592P	SHREY TALWAR	CBR AND PERMEABILITY VARIATION OF COAL-DUST SOIL	KAMLESH KUMAR	CIVIL
79	2013B3A2655P	INDRAYANI BARGAJE	CBR AND PERMEABILITY VARIATION OF COAL-DUST SOIL	KAMLESH KUMAR	CIVIL
80	2013B3A2758P	SUNNY PARUTHI	Social Impact Assessment	JYOTI	MANGT
81	2013B3A30512P	YASH THYAGI	SENMENTAL ANALYSIS ON THE STOCK PRICES	SAURAB CHADHA	ECO FIN
82	2013B3A30658P	VINAYAK AWASTHI	Real time application of internet of things.	VINAY CHAMALA	EEE
83	2013B3A3531P	ABHISHEK GUPTA	Stock Market Volatility And Business Cycle: India	RAJAN PANDEY	ECO FIN
84	2013B3A3645P	RAVNEET S BANSAL	Historical Economic Analysis Of Financial Crisis	SANJIV KR CHAUDHARY	ECO FIN
85	2013B3A3652P	AYUSH GUPTA	Back Testing Various Option Strategies On Nifty Historical Data and Determining Impact Of Embracing Downside Risk	N V M RAO	ECO FIN
86	2013B3A3672P	ANUBHAV GUPTA	Face recognition for biomtric application	K K GUPTA	EEE
87	2013B3A40647P	ANGAD SINGH DHANIJA	Supply Chain Management	S. ROUTROY	MECH
88	2013B3A7731P	BRAJESH SHISHIR	Relationship Strategies in Indian Airline Sector	ARUN KUMAR	MANGT
89	2013B3A80365P	TANYA SRIVATAVA	Embedded systems (seuering embedded software against information leakage)	SUDIPTA CHATTOPADHYAY	EEE
90	2013B3A80665P	SHONHIT TREHEN	Analysing Community Crypto Currency Volatility	RAJAN PANDEY	ECO FIN
91	2013B3A8479P	KSHITIJ PRAFULL PANSE	Quantum Computers- An Industry Analysis	ARUN KUMAR	MANGT
92	2013B3A8678P	SHRENIK BORAD	INTEGRATION AND ANALYSIS OF WIND POWER GENERATOR	H D MATHUR	EEE
93	2013B3A8737P	ARCHIT CHAUDHARY	MACRO ECONOMIC EFFECT	SAURAB CHADHA	ECO FIN
94	2013B3AB0565P	NIKHIL R	Maintenance Scheduling	R.P.MISHRA	MECH
95	2013B3AB538P	AMANDEEP SINGH	Finance/Factor Investment	N V M RAO	ECO FIN
96	2013B3AB653P	HEMANSHU KALE	3D Modelling of surroundings using EMW/ultrasonic Sensors with abstacle avoidance Mounted on a vehicle.	MURALI PALLA	MECH
97	2013B3AB754P	JANESH SINGLA	Econometric model: Economic growth and carbon emission	ARUN KR VAISH	ECO FIN
98	2013B3AB756P	AKSHAY KULKARNI	CRITICAL ANALYSIS OF BLOCKCHAIN	A K VAISH	ECO FIN
99	2013B4A10385P	KARTIK KOCHHAR	Predictive (Statistical) Modelling of Equities	SUMANTA PASARI	MATHS
100	2013B4A10773P	PARUL BEHL	Incorporating Risk and Cost in Global Sourcing Decision	SATYENDRA KUMAR SHARMA	MATHS
101	2013B4A10795P	AAYUSH GUPTA	Cost Estimation Comparison for Hydrogen Production via Low Temperature Steam Reforming and Aqueous Phase Reforming from Ethanol	RAKHEE	MATHS
102	2013B4A1211P	TANUJ ARORA	Optimization of air flow recipe in biomass stove.	PRATIK N SHETH	CHEMICAL
103	2013B4A1786P	ANKUR KUMAR	Study and application of optimization techniques.	AJAYA KR. PANI	CHEMICAL
104	2013B4A20760P	SNEHA	Design of wastewater treatment plant using MBBR (MOVING	ANUPAM SINGHAL	CIVIL

S.no	Bits id	Name	Topic	Supervisor	Department
			RED BIOFILM REACTOR)		
105	2013B4A2790P	KUNAL BANSAL	Ground Improvement Using Waste Material	RAVIKANT MITTAL	CIVIL
106	2013B4A30503P	ANKIT DUBE	Estimation of the Parameter Using Metropolis Hasting Algorithm in Queueing System	CHANDRA SHEKHAR	MATHS
107	2013B4A30762P	SHAMBHAVI VERMA	Architectural Floor Plan Designs using Graph Theory	KRISHNENDRA SHEKHAWAT	MATHS
108	2013B4A30781P	ATHARV GUPTA	Supply Chain Risk Quantification and Impact of Risk Mitigation on Supply Chain	SATYENDRA SHARMA	MATHS
109	2013B4A3619P	SHIVANI CHOUDHARY	OPTIMIZATION AND HARDWARE IMPLEMENTATION OF IOT DEVICES	FARZAD SAMIE	EEE
110	2013B4A40108P	N V S S KOUNDINYA	Study of the Inventory Modeling of Non-Perishable Items	RAKHEE	MATHS
111	2013B4A40471P	SHUBHAM CHOUDHARI	Optimization of Multi Level Supply Chain Management with Focus on Inventory Management and Network Design	SATYENDRA SHARMA	MATHS
112	2013B4A40607P	SIDDHANT JAIN	Solving Dynamic Facility Layout Problem using Tabu Search	RAJESH MATAI	MATHS
113	2013B4A40726P	VARUN KARULKAR	Applications of Hele-Shaw Flows in Micro fluidic Devices.	SHYAM SUNDER YADAV	MECH
114	2013B4A40768P	AKASH PANIGRAHI	Development of Expert systems and windows application for sales forecasting using traditional and non-convestional Method.	S. ROUTROY	MECH
115	2013B4A40775P	AMOL SRIVASTAVA	An Exhaustive Review of Marketing Model: Current State of Art	ANIL KUMAR BHAT	MATHS
116	2013B4A40793P	PRANJAL MITTAL	Investigation into Effectiveness of E-marketing Campaigns	ANIL K. BHAT	MATHS
117	2013B4A4607P	SIDDHANT JAIN	Solving dynamic facility layout problem using TABU Search	RAJESH MATAI	MANGT
118	2013B4A70470P	PRANJAL GUPTA	Image Analysis in Social Media for Suicide Risk Prediction	SANDRA BRINGAY	CSIS
119	2013B4A70588P	ANMOL KUMAR GUPTA	Connections between discrete and continuous models for biological images analysis	IVO F. SBALZARINI	MATHS
120	2013B4A70601P	PRYANSHU ARORA	Securing Embedded Software Against Information Leakage	SUDIPTA CHATTOPADHYAY	CSIS
121	2013B4A70743P	AKUL SAREEN	Applications of Discrete Mathematics and Graph Theory to Forensic Footwear Analysis	MARTIN HERMAN	MATHS
122	2013B4A7586P	JASKAMAL KAINTH	Schedulings Algorithms	ABHISHEK MISHRA	CSIS
123	2013B4A7716P	ARJUN DABRA	Factorization Algorithms	ABHISHEK MISHRA	CSIS
124	2013B4A7725P	S VIVEK	Biometric Template Security	KAMLESH TIWARI	CSIS
125	2013B4A7834P	DEEPANSHU NAGPAL	Design of Classification algorithms for Social Media Analytics	NAVNEET GOYAL	CSIS
126	2013B4A80195P	VISHESH SHARMA	Finding Hamiltonian Cycle and Drawing Subgraphs in Planar Graphs	RAJIV KUMAR	MATHS
127	2013B4A80529P	AJINKYA GAIKWAD	Solving Dynamic Facility Layout Problem using Simulated Annealing	RAJESH MATAI	MATHS
128	2013B4A80638P	PANKIT JAIN	Fuzzy Analysis of the Service System	CHANDRA SHEKHAR	MATHS
129	2013B4A80703P	SHUBHAM SHARMA	Minimal $\{k, k\}$ –Equivelar Maps	BASUDEB DATTA	MATHS
130	2013B4A80739P	SHUBHAM KUMAR	Hamiltonian Cycles and Planar Graph	RAJIV KUMAR	MATHS

S.no	Bits id	Name	Topic	Supervisor	Department
131	2013B4A80764P	HARSHITA RAJPUROHIT	A Study of Facility Layout Problems using Graph Theory	KRISHNENDRA SHEKHAWAT	MATHS
132	2013B4A80772P	RAGHAV MAHESHWARI	Mathematical Analysis of Two Fluid Model of Blood Flow Through Artries	ASHISH TIWARI	MATHS
133	2013B4A80796P	SALIL BHANDARI	Optimisation of Multi Level Supply Chain Management with Focus on Capacity Planning and Revenue Management	SATYENDRA SHARMA	MATHS
134	2013B4A8529P	AJINKYA GAIKWAD	Solving dynamic facility layout problem using modified SA	RAJESH MATAI	MANGT
135	2013B4AB0788P	SHAIK RAHEEMUDDIN SAMEER	Application of Mathematical Modelling in Sustainable Supply Chain	RAKHEE	MATHS
136	2013B5A1696P	MANISH GODARA	(Mg) <sub>n</sub> Zn [n= 1-10] nano clusters as hydrogen storage element	D BANDYOPADHYAY	PHYSICS
137	2013B5A1783P	KUMAR NIMITT	QUARK GLUON PLASMA	MADHUKAR MISHRA	PHYSICS
138	2013B5A20572P	RAHUL NARULA	Experimental analysis of basalt fibers reinforced concrete beams.	G MUTHUKUMAR	CIVIL
139	2013B5A2649P	UDIT PRAKASH	Glauber model and its implication in heavy ion collision	MADHUKAR MISHRA	PHYSICS
140	2013B5A2791P	VIDYA SAGAR	Transition metal doped cationic Ga-As semiconductor clusters	D BANDYOPADHYAY	PHYSICS
141	2013B5A3355P	ANIRUDH VENU	Predictive model for education technology.	CHRISTOPHER BOEXH	EEE
142	2013B5A3440P	PIYUSH SHARDA	VARIABLE ACCRETION ON ROTATION OF FORMING STARS	SEAN MATT	PHYSICS
143	2013B5A3467P	VISHNU SHARMA	Periodically driven systems : Chaos, entanglement, and all that	J N BANDYOPADHYAY	PHYSICS
144	2013B5A3550P	AKANKSHA SONI	Study and analysis of high speed nano-electronics circuits	NILADRI SARKAR	PHYSICS
145	2013B5A3620P	UTKARSH SINGH	Study of shell closing model in Al <sub>m</sub> P <sub>n</sub> with TM doping	D BANDYOPADHYAY	PHYSICS
146	2013B5A3680P	SUBHENDRA SINGH	Forced quantum systems and generation of artificial potentials	T G SARKAR	PHYSICS
147	2013B5A3695P	SREENIKETH	Laser propagation in stratifeid medium and its application in laser plasma interactions	AMOL HOLKUNDKAR	PHYSICS
148	2013B5A3761P	SHUBHI GARG	Cd-Ac semiconductor clusters ; A DFT study	D BANDYOPADHYAY	PHYSICS
149	2013B5A3780P	RISHABH AGARWAL	Development of MEMS-based capacitive micromachinel ultrasonic trarrducer.	CHANDRA SHEKHAR	EEE
150	2013B5A3798P	ANTARANG JAIN	Phase transition in biopolymers	NAVIN SINGH	PHYSICS
151	2013B5A40583P	S SARATH SANKAR	Smoothed Particle Hydrodynamics	SHYAM SUNDER YADAV	MECH
152	2013B5A40688P	ADITYA VIJAY KUMAR	Chaos and its Applications	PALLAB BASU	MECH
153	2013B5A4446P	PALASH TRIPATHI	Theoretical studies of light emission from scanning tunneling microscope	SRIJATA DEY	PHYSICS
154	2013B5A4557P	PRAGATI RATAN	Monte Carlo simulations based studies of machines	NAVIN SINGH	PHYSICS
155	2013B5A4735P	KUNAL SAMAR	(Mg) <sub>n</sub> Hf [n= 1-10] nano clusters as hydrogen storage element	D BANDYOPADHYAY	PHYSICS
156	2013B5A4809P	VISHAL	(Mg) <sub>n</sub> Ti [n= 1-10] nano clusters as hydrogen storage element	D BANDYOPADHYAY	PHYSICS
157	2013B5A4811P	SHRIYA MISHRA	Condensed matter/optical physics	R R MISHRA	PHYSICS
158	2013B5A7417P	PRANESH ANUBHAV	Study of shell closing model in Al <sub>n</sub> P <sub>m</sub> with TM doping	D BANDYOPADHYAY	PHYSICS
159	2013B5A7713P	RAHUL SHARMA	Optimizing wide-parameter	REINHARD PRIX	PHYSICS

S.no	Bits id	Name	Topic	Supervisor	Department
			Space searches for continuous gravitational waves		
160	2013B5A7767P	MANISH MISHRA	Enhancing performance of optical fibre communication	SRIJATA DEY	PHYSICS
161	2013B5A7810P	SRAJAN JAIN	Development of Methods of Real Time Image	PASCAL HERSEN	CSIS
162	2013B5A80784P	AARZOO SHARMA	Power electronic convertor for wind energy.	ASHISH PATEL	EEE
163	2013B5A85039P	NITYASA MISHRA	By periodic driving, Properties of static systems can be altered. In the proposed thesis, we would like to investigate how the properties of graphene like systems change.	ARNAB HAZRA	EEE
164	2013B5AB462P	BALAVARUN PEDAPUDI	Fast Fluid Dynamics	AAKASH .C. RAI	MECH
165	2013B5AB770P	RAGHAV KUMAR	Monte Carlo simulations based studies of materials & machine	NAVIN SINGH	PHYSICS
166	2014A1PS0569P	RACHANA DANDE	Development of Zn and Fe doped TiO <sub>2</sub> for biomedical applications	BANASRI ROY	CHEMICAL
167	2014A1PS653P	HIMANSHU GUPTA	Modeling, simulation and control of chemical processes.	HARE KRISHNA MOHANTA	CHEMICAL
168	2014A1PS683P	RAHUL ANIL KUMAR	Study and application of non-linear multi variate statistics	AJAYA KR. PANI	CHEMICAL
169	2014A2PS0726P	SUBHAM THAKUR	Removal of nitrate & Fluoride contaminants using different treatment technologies	AJIT PRATAP SINGH	CIVIL
170	2014A2T50634P	VEDANT JAGDISH PATIL	Investigations on Improvements of flexible Pavements: An Empirical study	AJIT PRATAP SINGH	CIVIL
171	2014A2TS0602P	ONKAR ASHISH	EFFECT OF SKEWNESS ON WHEEL LOAD	MANOJ KUMAR	CIVIL
172	2014A2TS0654P	ABHISHEK KANDPAL	Removal of arsenic from drinking water by adsorption method	ANUPAM SINGHAL	CIVIL
173	2014A2TS0760P	NISHIT JOSEPH	Performance Evaluation of Highway pavements using soft computing techniques	AJIT PRATAP SINGH	CIVIL
174	2014A2TS0771P	AYUSH AMAN GUPTA	Water Resource Planning and Management	R SRINIVAS	CIVIL
175	2014A2TS0782P	PIYUSH KUMAR	Water Resource Planning and Management	R SRINIVAS	CIVIL
176	2014A2TS0787P	ABHINAV SHARMA	Removal of fluoride from drinking water using adsorption method	ANUPAM SINGHAL	CIVIL
177	2014A2TS0788P	AKSHANSH RAJ	Analysis the effect of building renovation	VISHAKHA SAKHARE	CIVIL
178	2014A2TS0796P	KABIL BHARGAVA	Solid waste management	ANUPAM SINGHAL	CIVIL
179	2014A3PS0178P	SIDDARTH GUPTA	Deep learning methods for face recognition.	K K GUPTA	EEE
180	2014A3PS0271P	MANDAR WAMAN KHAPEKAR	sliding mode & retroactive cast adaptive control for inductor motor drive.	DHEERENDRA SINGH	EEE
181	2014A3PS0295P	AKHIL JAINI	Low frequency radio astronomy and instrumentation.	AVINASH DESHPANDE	EEE
182	2014A3PS200P	NIKHIL VERMA	Generating natural language descriptions from formal language text	MONJIT CHOUDHURY	EEE
183	2014A3TS0048P	R. GAUTHAM SUNDAR RAM	Hardware software co-design based accelerator for deep learning applications.	NITIN CHATURVEDI	EEE
184	2014A3TS0179P	RISHABH BHARDWAJ	Statistical natural language processing & machine learning.	LU WEI	EEE
185	2014A3TS0219P	SIDDHARTH K	Deep recurrent neural network for live recognition from surgical videos.	NICOLAS PANDAY	EEE

S.no	Bits id	Name	Topic	Supervisor	Department
186	2014A3TS0251P	BINDU PRIYA K	5G Protocols	SAI NATH BITRAGUNTA	EEE
187	2014A3TS0263P	SYED ABDUS SATTAR	HIGH SPEED ELECTRONIC DEVICE	V K CHAUBEY	EEE
188	2014A3TS296P	ADITYA MANGLIK	Malhine learning architectures for internet of things in heath cake application.	MUHAMMAD SHAFIQUE	EEE
189	2014A4PS0265P	MOHIT TATHI	Machine Health Monitoring.	B.K. ROUT	MECH
190	2014A4PS0315P	PARIKSHIT AGRAWAL	Development of learning factory modules and optimization via production planning.	K.S.SANGWAN	MECH
191	2014A4pS0317P	RITESH YADAV	Hyper-Redundant Bobots	B.K.ROUT	MECH
192	2014A4PS0327P	MELTA MANISAI K.K.	Fault Diognosis	A.K.JALAN	MECH
193	2014A4PS341PP	ROHAN SINGH	Bipedal robotics	B.K.ROUT	MECH
194	2014A4TS0090P	SANCHIT HIRA	Goint loading analysis of a Humanoid under Dynamic loading conditions	B.K.ROUT	MECH
195	2014A4TS0273P	MOHANISH GOEL	Investigating stability diagram for Euler-Bernoulli beam under arial time-periodic loading.	A. M.MARATHE	MECH
196	2014A4TS0289P	MAHARSHI MEHTA	Meshleo and Meshed finite element methods to find natural frequencies of a Cantilever beam.	A. M.MARATHE	MECH
197	2014A4TS0371P	K.GAUTAM	Supply Chain Management	S. ROUTROY	MECH
198	2014A4TS0381P	B.SAICHARAN	Medeling and Experimentation of Evaporation and Particle Transport in sessile Droplets	SAPTARSHI BASU	MECH
199	2014A4TS0398P	ROHIT GANAPATHY	Improving forecasting accurocy using artificial intelligence.	SATYENDRA SHARMA	MECH
200	2014A4TS344P	SHASHVAT SANGWAN	Supply Chain Management	S. ROUTROY	MECH
201	2014A5PS0376P	AISHWARIA NIGAM	Nanotechnology based targeted drug delivery system	ANIL JINDAL	PHARMACY
202	2014A5TS0180P	TANYA BHATT	Novel drug Delivery Sytem	R.N SAHA, BITS- DUBAI	PHARMACY
203	2014A5TS0401P	KIRTI SINGH	Studies in biochemical pathways underlying certain neuropharmacological diseases/disorders	R MAHESH	PHARMACY
204	2014A5TS0551P	KAUSHIK RAMESH I	Nanocrystal based drug delivery system	M.M PANDEY	PHARMACY
205	2014A5TS0612P	SIDDARTH KAUSHAL	TLC/HPLC profiling of some medicinal plant /algae	ATISH T. PAUL	PHARMACY
206	2014A5TS0621P	RITUPARUNA PRAHARAJ	Analysing the Supply chain of generic medicine in rural area.	SRIKANTA ROUTROY	PHARMACY
207	2014A5TS0824P	HARSHIT NUNIA	Design of supply chain for vaccines and biotherapeutics	SUNIL K.DUBEY	PHARMACY
208	2014A5TS0840P	EESHA DINKAR	Neuroprotective effect of blocking amyloid precursor protien in intracellular signaling	DAWIN DAWE,	PHARMACY
209	2014A7PS0025P	SIDDHARTH AGARWAL	NARRATIVE STRATEGIES OF SHORT FILMS A COMPARATIVE STUDY OF WESTERN AND INDIA CINEMA	SUSHILA SHEKHAWAT	HSS
210	2014A7PS0025P	SIDDHART AGARWAL		J JENNIFER RANJANI	CSIS
211	2014A7PS0032P	MALLIKARJUN SWAMY	Extraction and Analysis of 3D Location and Shape of Internal Organs	SERGI PUJADES ROCAMORA	CSIS
212	2014A7PS0035P	AKSHIT CHOPRA	RPM Prediction and Biding for Online Advertising	PARAS MALIK	CSIS
213	2014A7PS0060P	SUBHASH KUMAR SAMOTA	DESIGN AND DEVELOPMENT OF A FRAMEWORK FR PROCESSING QOS IN HYBRIT SDN	K HARIBABU	CSIS

S.no	Bits id	Name	Topic	Supervisor	Department
214	2014A7PS0077P	AKSHIT JOHRY	Quantum Annealing	ABHISHEK MISHRA	CSIS
215	2014A7PS0088P	MANIK BHANDARI	Knowledge Graphs (NLP)	PARTHA TALUKDAR	CSIS
216	2014A7PS0102P	RISHABH JOSHI	Knowledge Graphs (NLP)	PARTHA TALUKDAR	CSIS
217	2014A7PS0111P	MAYANK AGARWAL	Deep Learning Techniques for Computer Vision	R VENKATESH BABU	CSIS
218	2014A7PS0114P	ARPIT PANDA	Software Defined Networks	K HARIBABU	CSIS
219	2014A7PS0157P	PULKIT GUPTA	Machine Learning, Accessibility	GOPAL SRINIVASA	CSIS
220	2014A7PS074P	MOHIT YADAV	Design and Development of Efficient Algorithm(s) for Solving the Problem of Multi-robot Task Allocation	AVINASH GAUTAM	CSIS
221	2014A7PS083P	ISHANT GUPTA	Some Probabilistic Graphical Models for Speech Recognition	MUKESH KUMAR ROHIL	CSIS
222	2014A7PS121P	SUBHAM KUMAR	Visualization & Analysis of Medical Images	SUNDARESAN RAMAN	CSIS
223	2014A7PS138P	S HARI VENKATA KRISHNA	Security in Cloud Computing	AMIT DUA	CSIS
224	2014A7PS152P	JASPREET SINGH	Content based recommendation for effective question answer systems	YASHVARDHAN SHARMA	CSIS
225	2014A7TS0107P	AMEESHA MITTAL	Developing a Conversational Agent in Support of Online Teaching	LORGENZO VIGENTINI	CSIS
226	2014A7TS0113P	VIDHI JAIN	Deep Learning in Speech Recognition and Natural Language Processing	AARON COURVILLE	CSIS
227	2014A8PS0412P	MAYUR MAHAJAN	Load forecasting on the electric grid via computational intelligence methods	H. D. MATHUR	EEE
228	2014A8TS0454P	AASHISH RICHHARIYA	Design & development of efficient algorithm(s) for solving the problem of multi-robot terrain coverage.	SUDEEPT MOHAN	EEE
229	2014A8TS0464P	SAGNIK MAJUMDER	Deep learning generation of neural architectures using deep reinforcement learning	VISVANATHAN RAMESH	EEE
230	2014ABPS0865P	PRANJAL SINGHAL	Thermodynamics Based optimization optimize and control Vapour Power cycle (Rankine Cycle)	P.SRINIVASAN	MECH
231	2014ABTS0109P	ANAND MOHAN YADAV	Demand-Supply mismatch in supply chains	SATYENDRA K.SHARMA	MECH
232	2014ABTS0519P	CHARU TAK	Computer Aided Design, Augmented Reality Rendering modifiable bezier & BSP Line planes in Augmented reality.	JYOTI ARORA	MECH
233	2014ABTS0855P	RISHABH GUPTA	Implications of Lean Manufacturing on Environment, Society and Economy: Literature Review.	K.S. SANGWAN	MECH
234	2014B1PS0261P	DIVYANSH SAINI	Analysis of research/ market created by various startups in the bio space linking into traditional research in academia	SHIBASHISH CHOWDHURY	BIOLOGY
235	2014B2TS0965P	SMITI YADAV	Synthesis and Characterization of Imine Ligands and their Coordination polymers,.	BHARTI KHUNGAR	CHEMISTRY
236	2014B3TS0630P	ADITI SINHA	How Data Collection Can Help Government Make Better Decisions	ABHIJIT SARKAR	ECO FIN
237	2014B5A40664P	SIBESH KAR	System and Method for Multi-Modal Transit	J N BANDYOPADHYAY	CIVIL
238	2014B5TS0482P	ABHISHEK SETHI	Digital holographic microscopy and use in studying cell biology	SHASHI THUTUPALLI	PHYSICS
239	2014B5TS0947P	SMRITI JOSHI	Charmonium production in asymmetric nuclear collision	MADHUKAR MISHRA	PHYSICS



S.no	Bits id	Name	Topic	Supervisor	Department
240	2014B5TS0957P	AKANKSHA AGARWAL	Instrumentation in Biophysical measurements of cell	GAUTUM SONI	PHYSICS
241	2014C2PS0339P	AAYUSH SHARMA	URBAN CULTURAL STUDIES	SOMDATTA BHATTACHARYA	HSS
242	2014D2TS0979P	RASHMI CHAUDHRY	MEDIA STUDIES & ADVERTISEMENT TITLE-COST BENEFIT ANALYSIS OF SOCIAL MEDIA MARKETING	DEVIKA	HSS
243	2014D2TS0991P	VIKASH	ROLE OF COMMUNICATION SKILL IN MARKETING STRATEGIES: A CASE STUDY OF LAPTOP AND MOBILE PURCHASE BY BITSIAN STUDENT.	DEVIKA	HSS
244	2014D2TS0992P	RATAN SINGH	PUBLIC SPEAKING ANXIETY AMONG ENGINEERING STUDENTS: AN EMPIRICAL STUDY	PUSHP LATA	HSS
245	2103B3A70673P	AKSHIT REDDY SADDI	Credit rating prediction using machine learning algorithms	KRISHNA M.	ECO FIN

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S.No	BITS ID	NAME	Topic	Supervisor	Department
1	2004B2A70667P	ADARSH SANGHAI	Study of Aggregation Induced Emission effect on Schiff's base compounds	MADHUSHREE SARKAR	CHEMISTRY
2	2013B1PS0450P	SHIRSH ZIBBU	Application of neural networks in the field of miRNA-mRNA recognition	SHIBASHISH CHOWDHURY	BIO
3	2013B3PS0720P	HONEY GOYAL	DEVELOPMENT OF ANALYTIC FOR P2P WAY OF MICRO FINANCING	ARUN KUMAR VAISH	ECO AND FIN
4	2013B5A20769P	PRADEEP KUMAR	A detailed study on Cuprous oxide as a solar material	SUBHASHISH GANGOPADHYAY	PHYSICS
5	2014A1B10525P	HARSH KANODIA	Experimental and computational neurosciences	HIROKI ASARI	BIO
6	2014A1TS0538P	KAUSTUBH TRIPATHI	Bio Sequestration of CO2 using Algal specie in a pilot scale photo bioreactor	SMITA RAGHUVANSHI	CHEMICAL
7	2014A3A70302P	T DINESH RAM KUMAR	Computer Networking	K HARIBABU	CSIS
8	2014A7TS0138P	S. HARI KRISHNA	Efficient Task Scheduling using Containers and Live Migration	AMIT DUA	CSIS
9	2014ABPS0856P	CHIRAG BHARADWAJ	Supply Chain Management	SRIKANTA ROUTROY	MECH
10	2014B1A10422P	STUTI MAHESHWARI	Sustainable Design of Integrated Biorefineries.	MAHMOUD M EL-HALWAGI, DEPT. OF CHE, TEXAS A&M UNIV, USA	CHEMICAL
11	2014B1A20811P	MEGHANI IMRAN IQBAL	Microbial diversity and abundance in mineral deposits of alpine glacier forefields	GERHARD FURRER	BIO
12	2014B1A20889P	KSHITIK GUPTA	Use of Bio-cement for filtration of water for drinking purposes	RAJIV GUPTA	CIVIL
13	2014B1A30284P	SURBHIT JOHRI	Profiling depression related behavioural pattern in university students	ASHIS KUMAR DAS	BIO
14	2014B1A30455P	RICHA MISHRA	Computer vision algorithms to RGB-monocular data for scene understanding	FEDRICO TOMKARI	BIO
15	2014B1A30632P	ANUHUTI MISHRA	In silico characterization of plasmodium database	SHILPI GARG	BIO
16	2014B1A40384P	MEDHA VIDYOMA		SIBASISH CHOWDHARY	BIO
17	2014B1A40404P	RISHABH GAUR	Optimization of image processing techniques for pattern	JITENDRA PANWAR	BIO

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S.No	BITS ID	NAME	Topic	Supervisor	Department
			leaf disease identification		
18	2014B1A40620P	ANINDITA SINGHAI	Study of neurodegenerative diseases using fruit flies	MEGHNA TARE	BIO
19	2014B1A40764P	PRIYAM SHRIKANT AMBASTHA	Micro and nanotechnology applications in medicine	HADI SHAFIEE	BIO
20	2014B1A70213P	RICHA PATEL	Protin Function annotation through non-evolutionary methods	DENATH PAL	BIO
21	2014B1A70319P	SATWIK BHATTAMISHRA	Biomedical data (sequence) augmentation using adversarial networks	PARTHA PRATIM TALUKDAR	BIO
22	2014B1A70408P	ADITYA CHAUHAN	Profiling depression related behavioural pattern in university students	ASHIS KUMAR DAS	BIO
23	2014B1A70485P	NABARUN GOGOI	Group behavior dynamics in wild animals	SANDHYA MARATHE	BIO
24	2014B1A70732P	ASIM SHAH	Modeler development FOR regulatory TESTING	MANOJ KANNAN	BIO
25	2014B1A70880P	KAPIL AGARWAL	Modelling invasive species distribution (niche modelling)	SANDHYA MARATHE	BIO
26	2014B1A80472P	MIHIR DESHMUKH	Feature level sentiment extraction on biological products text corpus	ANDY PANDHARIKAR	EEE
27	2014B1A80899P	ANSHIMALA BALU	Accurate and efficient modelling of diffuse photon behavior in phantoms and mice	FELIX GREMSE	BIO
28	2014B1A880135P	CHIRAG GYANI	Studying the effect of differential fluid dynamics on endothelial inflammation	SYAMANTAK MAJUMDAR	BIO
29	2014B1AB0058P	ATUL JALA	Design of modular production system for learning factory	K.S.SANGWAN	MECH
30	2014B1AB0823P	SALONI SINHA	Study and design of models of correlation between cancer and a user lifestyle	VINDHYA JOSEF	BIO
31	2014B2A20692P	TANMAY JAISWAL	Analysis of Stress indicator with an Aggregation Induced Emission Active Mechanoluminescence Material	INAMUR RAHAMAN LASKAR	CHEMISTRY
32	2014B2A20806P	ADITYA SHARMA	Development of efficient co-catalyst (transition metal chalcogenide) for hydrogen and oxygen evolution reaction	MRINMOYEE BASU	CHEMISTRY
33	2014B2A30122P	HIMANSHU MENDIRATTA	Fe binding sites and its activity corelation in metalloproteins.	AJAY KUMAR SAH	CHEMISTRY
34	2014B2A30153P	KARTHIK SURESH	Fabrication of suspended graphene heterostructures and study of 1/f noise.	JAYANTA SARKAR	CHEMISTRY
35	2014B2A30195P	JAHNAVI GANDHI	Conductive polymers and their application as real-time cation sensors in biosensing	VISHNU SUNDARESAN	CHEMISTRY
36	2014B2A30227P	RIYA SHARMA	Layered Double Hydroxide for electro catalysis and photo catalysis	SUROJIT PANDEY	CHEMISTRY
37	2014B2A30329P	VIBHOR MITTAL	Dft based study of reactivity and thermodynamiys of molecules	RAM KINKAR ROY	CHEMISTRY
38	2014B2A30365P	SIDDHARTH S TRIPATHI	Investigation of interaction of particles with molecules in the atmosphere.	SHAMIK CHAKRABORTY	CHEMISTRY
39	2014B2A30500P	BRAHMKESHWA R SHUKLA	Development of software to calculate integrals for electronic molecules	PRASHANT U MANOHAR	CHEMISTRY
40	2014B2A30563P	SONALI RAJESH MEDANI	Integrating monitoring infrastructure using PARD system and explore its applications in chemistry of	SALLY A. MCKEE	CHEMISTRY

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S.No	BITS ID	NAME	Topic	Supervisor	Department
			materials		
41	2014B2A40411P	ARYA ARUN	Synthesis, Functionalization and Exploration of the photophysical properties of dipyrromethene	DALIP KUMAR	CHEMISTRY
42	2014B2A70038P	MUSTUFA LOKHANDWALA	Catalysis driven by host guest hybrid systems	SAUMI RAY	CHEMISTRY
43	2014B2A70201P	AMAN GUPTA	Machine Learning Applications in Bio & Chem Sensors	BHARTI KHUNGAR	CHEMISTRY
44	2014B2A70220P	MAITRI SHASTRI	Inorganic chemistry and catalysis	SAUMI RAY	CHEMISTRY
45	2014B2A70238P	YASH BANSAL	Prediction of 1H NMR using Machine Learning Algorithms.	BHARTI KHUNGAR	CHEMISTRY
46	2014B2A70363P	ABHISHEK JAIN	Fe binding sites and its activity corelation in metalloproteins.	AJAY KUMAR SAH	CHEMISTRY
47	2014B2A70644P	SUBHAM SWASTIK DORA	Zinc catalyzed transesterification and cycloaddition of carbondioxide to epoxides	AJAY KUMAR SAH	CHEMISTRY
48	2014B2A70863P	SHRUTI JASORIA	DNA Charge Transfer	SHAMIK CHAKRABORTY	CHEMISTRY
49	2014B2A70885P	TUSHAR DHALWANI	Deep Learning for Computer Vision and Medical Imaging Tasks.	PETIA RADEVA	CHEMISTRY
50	2014B2A80287P	TUSHAR MEHTANI	Use of Artificial Intelligence (AI) Techniques in 1H-NMR peak prediction	BHARTI KHUNGAR	CHEMISTRY
51	2014B3A10532P	NIRABHI SHARMA	comperative study of business models	A.K. VAISH	ECO AND FIN
52	2014B3A10687P	ANKIT GUPTA	Risk appetite frameworks for Indian banking system	N.V.M. RAO	ECO AND FIN
53	2014B3A10709P	ASHIT SHRIVASTAVA	Large Scale Dynamic Predictive Regressions	N.V.M. RAO	ECO AND FIN
54	2014B3A30518P	VAIBHAV MIGLANI	Econometric Analysis of the effects of Income Inequality on Economic Growth in developing countries	N.V.M. RAO	ECO AND FIN
55	2014B3A30647P	ARNAV ANAND	Behavioral Economics: Studying Bounded Rationality in a Consumer Setting	RAJNEESH CHOUBISA	ECO AND FIN
56	2014B3A40581P	RISHABH JAIN	Lean Manufacturing: Appliance on a welded steel profiles production line of Astron, Diekirch (LU) factory, in transversal collaboration with Production, Maintenance and IT Development departments	ETIENNE LESUISSE	ECO AND FIN
57	2014B3A40722P	SAUMIL GAONKAR	Application of high frequency data for forecasting volatility of stock markets	RAJAN PANDEY	ECO AND FIN
58	2014B3A70282P	SHUBHAM MAURYA	Design of Monetary Penalties for regulating industrial emissions	SANTOSH HARISH	ECO AND FIN
59	2014B3A70375P	HARSHVARDHAN MAHESHWARI	Understanding impact of social media on customer co-creation process	PRAVEEN GOYAL	ECO AND FIN
60	2014B3A70435P	TUSSAR ARORA	Blockchain based credit risk management platform	N.V.M. RAO	ECO AND FIN
61	2014B3A70582P	RAJAS PANDEY	Social Consumption in India: A State Level Analysis	KRISHNA M.	ECO AND FIN
62	2014B3A70605P	MEGHA SHISHODIA	Analysing consumer reviews on online platforms: A text analysis approach	PRAVEEN GOYAL	ECO AND FIN
63	2014B3A70615P	AMITQJDEEP SINGH	Convolutional Neural Networks to Detect Brain Regions in Amblyopia using fMRI images with Feasibility Analysis	VASUDEVAN LAKSHMINARAYANAN	ECO AND FIN
64	2014B3A70625P	ABHINAV MISHRA	Dynamics of Demographic Dividends in India: An Empirical	GEETILAXMI MOHOATRA	ECO AND FIN

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S.No	BITS ID	NAME	Topic	Supervisor	Department
			Analysis		
65	2014B3A70626P	SAKSHI KHANDELWAL	Impact of Fintech in Indian Financial Services Sector	SAURABH CHADHA	ECO AND FIN
66	2014B3A70640P	HARSH GOYANKA	Determinants of Loan Repayment behavior of farmers: Microeconomic Analysis	GEETILAXMI MOHPATRA	ECO AND FIN
67	2014B3A70718P	SAURABH SHANKAR SHETTY	Analysis of Education Policy of India	JYOTI	ECO AND FIN
68	2014B3A70743P	SIDDHARTH NAGPAL	Subspace Clustering support in Dwarf Compiler	NAVNEET GOYAL	ECO AND FIN
69	2014B3A70748P	AMAN AGGARWAL	Offshore Deposits and the Impact of Tax Policies on the same	N.V.M. RAO	ECO AND FIN
70	2014B3A70749P	LOVISH ARORA	Blockchain: A Game Changing Technology	GEETILAXMI MOHPATRA	ECO AND FIN
71	2014B3A70836P	MAYANK GUPTA	An investigation of Multidimensional Poverty in India: An econometric application	GEETILAXMI MOHPATRA	ECO AND FIN
72	2014B3A80659P	VISHAL HANS	Sustainability of payment banks' business model	A.K. VAISH	ECO AND FIN
73	2014B3A80753P	RISHABH VIJAYVARGIYA	Approaches in Behavior Finance for Asset Pricing	RAJAN PANDEY	ECO AND FIN
74	2014B4A20558P	ROHIT GUPTA	Options Pricing (Application of Differential Equations Simulation & Modelling of Options Securities)	BHUPENDRA KUMAR SHARMA	MATHS
75	2014B4A30606P	ARJUN TYAGI	Learning PDEs from Data	RAJESH KUMAR	MATHS
76	2014B4A30705P	YASH JAIN	Weak Galerkin Method	SANGITA YADAV	MATHS
77	2014B4A30754P	ARJUN GUPTA	Vision-Based Autonomous Driving	ANTONIO M LOPEZ	MATHS
78	2014B4A30807P	ADITYA SUNDARLAL DARAK	Traveling Salesman Problem in Planar Graph	RAJIV KUMAR	MATHS
79	2014B4A30809P	AAYUSHI AGRAWAL	Hybridized Discontinuous	SANGITA YADAV	MATHS
80	2014B4A70428P	JAI AGARWAL	Using SimRank to Find Similar Words give a Context	CHNG ENG SIONG	MATHS
81	2014B4A70530P	GOVIND MITTAL	Observational Data Analysis in Cosmological Models	SURESH KUMAR	MATHS
82	2014B4A70587P	AKSHAY GOEL	Evolutionary Algorithms	RAKHEE	MATHS
83	2014B4A70637P	V GAUTHAM	Machine Learning Techniques for Forensic Footwear Analysis	MARTIN HERMAN	CSIS
84	2014B4A70719P	ARJUN KUMAR CHOUDHARY	Deep Learning Methods for Solving PDES	RAJESH KUMAR	MATHS
85	2014B4A70745P	ANMOL BHATIA	Automatic Speech Analysis and Recognition using Statistics and Deep Learning tools	SRIRAM GANPATHY	MATHS
86	2014B4A70800P	ANURADHA BANSAL	Contributions to image and Text Analytics for Document Clustering and c	ARNAB KUMAR LAHA	MATHS
87	2014B4A70802P	VRINDA PODDAR	Network Optimization	SHIVI AGARWAL	MATHS
88	2014B4A70805P	DAKSHESH MEHTA	Discrete Time Queues	RAKHEE	MATHS
89	2014B4A70821P	AMRIT KOCHAR	DNS Based DDOS Attacks	RAKHEE	MATHS
90	2014B4A70867P	KARAN MAKHIJA	Algebraic Coding Theory	P H KESKAR	MATHS
91	2014B4A80512P	PIYUSH RANJAN	low power low noise cmos amplifier design	ANU GUPTA	EEE
92	2014B5A20872P	RAUNAK S SWANSHE	Neutrino Physics	MADHUKAR MISHRA	PHYSICS
93	2014B5A30484P	TANMAY VERMA	Power market Dynamics based on statistical mechanics	J.N. BANDYOPADHYAY	PHYSICS

## FIRST SEMESTER 2018-19

S.No	BITS ID	NAME	Topic	Supervisor	Department
94	2014B5A30829P	RAKSHITH S	Quantum Biology	AMOL HOLKUNDKAR	PHYSICS
95	2014B5A30850P	RAJA SHUKLA	Study of Nuclear fusion and its application	AMOL HOLKUNDKAR	PHYSICS
96	2014B5A30861P	REA SAXENA	Econophysics: Application of statistical mechanics to cryptocurrency	J.N. BANDYOPADHYAY	PHYSICS
97	2014B5A40564P	SANGEET SOURAV SUNDERROY	Fluid structure Interaction of blood flow through brain blood ressets.	SHYAMSUNDARYAD AV	MECH
98	2014B5A40691P	KUMAR RISHABH	Detection of Neutrino	MADHUKAR MISHRA	PHYSICS
99	2014B5A40815P	SANA AGARWAL	Open Quantum System and its Applications	MANAS KULKARNI	PHYSICS
100	2014B5A40830P	SHRIKANT MAHESH KHANDELWAL	Growth and Applications of Cuprous Oxide thin films	SUBHASHISH GANGOPADHYAY	PHYSICS
101	2014B5A40838P	VIHANG SHAH	Econophysics: Statistical physics in financial markets	J.N. BANDYOPADHYAY	PHYSICS
102	2014B5A40844P	AKSHAY GOLECHHA	Molecular Dynamics	NAVIN SINGH	PHYSICS
103	2014B5A70571P	ADITYA MUKHERJEE	BCNT and its Electronic Structures	D BANDYOPADHYAY	PHYSICS
104	2014B5A70681P	SHETGAONKAR HRISHIKESH DIGAMBER	Multi frequency study of pulsar emissions	KAUSHAR VAIDYA	PHYSICS
105	2014B5A70717P	VISHAL GOLCHA	Prohibistic modeling of the ising model & variational inference	NILADRI SARKAR	PHYSICS
106	2014B5A70770P	CHINMAY SANJAY DESHMUKH	Quantum Annealing in optimization problems	NILADRI SARKAR	PHYSICS
107	2014B5A70774P	ASHISH AMAN	Dileplow and photons production in QCD matter	MADHUKAR MISHRA	PHYSICS
108	2014B5A70779P	HARSHITA GOYAL	Advance topics of GTR & Cosmology	BISWANATH LAYEK	PHYSICS
109	2014B5A70817P	ABHISHEK GUPTA	Application of deep Neural networks on DNA	NAVIN SINGH	PHYSICS
110	2014B5A70833P	ANUBHAV GARG	Searching for Exotic particles in High energy Physics Experiments using ML	XINYUAN HUANG	PHYSICS
111	2014B5A70849P	NAMAN JAIN	Neutrino Physics	MADHUKAR MISHRA	PHYSICS
112	2014B5A70852P	CHHAYANK KUMAR	Quarkonium production in QCD matter	MADHUKAR MISHRA	PHYSICS
113	2014B5A70853P	SACHIN MISRA	Computational Physics	NAVIN SINGH	PHYSICS
114	2014B5A70869P	JAYANT JAIN	Quantum Finite Automata	J.N. BANDYOPADHYAY	PHYSICS
115	2014B5TS0664P	SIBESH KAR	DEVELOPING AI FOR UNKNOWN DATA	NAVIN SINGH	PHYSICS
116	2015A1PS0495P	K. SURYA SIDHARTHA	Application of Computational Fluid Dynamics (CFD) in numerical simulation of gravity turbidity currents.	ECKART MEIBURG, UNIV. OF CALIFORNIA.	CHEMICAL
117	2015A1PS0511P	DEBARCHAN BASU	Survey and comparison of Variable selection techniques for inferential model development	AJAYA KR. PANI	CHEMICAL
118	2015A1PS0521P	SUMEGH GARG	Fluidization	ARVIND KR. SHARMA	CHEMICAL
119	2015A1PS0716P	PRANAV MAGADI	Analysis of Process Data for Optimization of crenulations process.	SATENDER RAWAT	CHEMICAL
120	2015A1PS0761P	SHIVAM KUMAR	Synthesis characterization and application of nanomaterials. Broad area: Nanoscience	SURESH VALIYAVEETIL	CHEMICAL
121	2015A1PS0769P	ANSHUMAN SHUKLA	Survey and comparison of PID controller tuning techniques	AJAYA KR. PANI	CHEMICAL
122	2015A1PS0791P	KABIR AHUJA	Application of machine learning	WILLIAM H. GREEN	CHEMICAL

## FIRST SEMESTER 2018-19

S.No	BITS ID	NAME	Topic	Supervisor	Department
			in Reaction Engineering		
123	2015A1TS0787P	VIDUSHI CHITRANSHI	Computational Fluid Dynamics	DEBJYOTI BANERJEE,	CHEMICAL
124	2015A2PS0577P	DIVYA PRAKASH JAIN	Fire Resistance in RCC Structure	G MUTHUKUMAR	CIVIL
125	2015A2PS0598P	AKSHAY PATIDAR	Performance based design of frame structure.	G. MUTHUKUMAR	CIVIL
126	2015A2PS0700P	ASHWANI CHHATRE	Performance based Earthquake Engineering of RC structures	G MUTHUKUMAR	CIVIL
127	2015A2PS0709P	ABHIJEET PANDEY	Seismic risk and loss estimation in sector 2 & 23 of Gandhinagar	ANSHUMAN	CIVIL
128	2015A2PS0788P	ABHISHEK ANAND	Risk management in infrastructure development	RAVI KANT MITTAL	CIVIL
129	2015A2PS0822P	SAURAV	Resilience Based Design of Structures	G. MUTHUKUMAR	CIVIL
130	2015A2TS0461T	HARSHIT UPADHYAY	Design of various Drinking water systems for Hilly Areas.	ANUPAM SINGHAL	CIVIL
131	2015A2TS0719P	LAKSHAY KUMAR	Analysis of multi storey building pierced shear wall	MANOJ KUMAR	CIVIL
132	2015A2TS0802P	NIHARIKA	Water Derivative market Analysis (Mathematical finance)	R. SRINIVAS	CIVIL
133	2015A3PS0207P	ISHAAN GHOSH	Development of neural electrode probe	HYUKJOO J. LEE	EEE
134	2015A3PS0237P	MOHAMMED DANISH	Antiderivative antialiasing of memoryless nonlinearities in feedback	STEFAN BILBAO	EEE
135	2015A3PS0263P	TARU KAPOOR	Hardware in the loop test bench for model based wntrol desgin.	RAINER NITSCHKE	EEE
136	2015A3PS0265P	AKASH SONTH	Image processing and computer vision	K. K. GUPTA	EEE
137	2015A3PS0267P	PRADYUMN SINGH	Swarm intelligence and meta- heuristic optimization algorithms	PUNEET MISHRA	EEE
138	2015A4PS0182P	ROSHAN PRADHAN	MODELING AND SIMULATION OF RAIL-VEHICLE	ARUN LALAN	MECH
139	2015A4PS0196P	SARANSH ARORA	MICROFLUIDES	PROSENJIT SEN	MECH
140	2015A4PS0239P	SAI SHUBODH P.	Autonomous Tree Mapping Algorithm for a forest Like Area Using A Quadcopter	MADHAVA KRISHNA	MECH
141	2015A4PS0340P	AYUSH PRIYANSH TRIPATHI	Supply Chain Management	SRIKANTA ROUTROY	MECH
142	2015A4PS0341P	SABYASACHI DASH	Self Driving car technology for Indian conditions	BIJOY KUMAR ROUT	MECH
143	2015A4PS0364P	BALA VADAN DAMARLA	Porous fin arrangement for cooling electronic equipment	P. SRINIVASAN	MECH
144	2015A4PS0388P	PRANAV DESHPANDE	Applications of IoT for Predictive maintenance	ABHIJEET K. DIGALWAR	MECH
145	2015A4PS0425P	VISHNU SHANKAR	Supply chain Management (Agricultural Supply Chain)	SRIKANTA ROUTROY	MECH
146	2015A4PS0435P	MANAV FAKEY	REDESIGNING THE SUPPLY CHAIN PLANNING PROCESS	PRADEEP KUMAR	MECH
147	2015A4TS0296P	KARTIK AGGARWAL	Supply Chain Management in healthcare sector	SRIKANTA ROUTROY	MECH
148	2015A5PS0939P	DIKCHHA AGRAWAL	NAHRAL PRODUCTS	PAUL ATISH	PHARMACY
149	2015A5PS0941P	PRATYUSH RAO	Synthesis and evaluation of tamoxifen nanoparticles	ANUPAMA MITTAL	PHARMACY
150	2015A5PS0944P	B. SRI SOURYA SAI	Nano-carrier based drug delivery for anticancer drugs	M.M PANDEY	PHARMACY
151	2015A5TS0910P	RASHMILA MITRA	Deciphering hepatocytes death in Fatty Liver Disease	DR.PARTHA CHAKRABARTI	PHARMACY
152	2015A5TS0922P	RUCHI CHOUDHARY	Anticoagulant properties of novel factor XIa inhibitors	R MANJUNATHA K	PHARMACY
153	2015A5TS0927P	PRATIM PATHAK	Diabetes and digital therapy	PRAYAT SHAH	PHARMACY

## FIRST SEMESTER 2018-19

S.No	BITS ID	NAME	Topic	Supervisor	Department
154	2015A5TS0942P	PARIDHI GUPTA	Evaluating Pharmacokinetics of anti-asthmatic drugs in the body	GUENTHER H	PHARMACY
155	2015A5TS0955P	PRAKRITI ROY	Innovative formulation based on novel drug delivery platform/ New chemical entity research Program	NITIN DHARMADHIKARI	PHARMACY
156	2015A7PS0022P	VISHAL	Information Gathering through the analysis encrypted mobile traffic	ASHUTOSH BHATIA	CSIS
157	2015A7PS0047P	PRANAV SIDDHARTH S	Automated Multimedia Content Controller for Academic Community	NAVNEET GOYAL	CSIS
158	2015A7PS0056P	ABHAY KOUISHIK	Developing a Brain Computer Interface for Interfacing in Deep Sleep	PATTIE MAES	CSIS
159	2015A7PS0059P	NISCHAY SINGH	Scientific Computing	LAXMIKANT V KALE	CSIS
160	2015A7TS0045P	SAURABH MANISH RAJE	Hijacking Rust Programming Language for Online High Performance Data Analytics	BRUNO RAFFIN	CSIS
161	2015A8PS0462P	KUSHAGRA AGGARWAL	CMOS Qubit logic devices	SALVANO DE FRANCESCHI	EEE
162	2015A8PS0469P	SATYANM GUPTA	Embedded system and PCB	ALEXANDER LAMPRECHT	EEE
163	2015A8TS0422P	HITESH AHUJA	Hardware software co-design for CNN based object detector.	CHANDRA SHEKHAR	EEE
164	2015ABPS0506P	I.SAI PRASAD	Biomedical applications of rapid prototyping	VARUN SHARMA	MECH
165	2015ABpS0808P	ADITYA MEHTA	Daily activity recognition system using MEMS based inertial sensor for assisted living	SAI KRISHNA VADDADI	MECH
166	2015ABPS0833P	MANPREET SINGH	DESIGN OF ROBOTIC COMPONENTS FOR LEARNING FACTORY	K S SANGWAN	MECH
167	2015B1TS0929P	SAMAKSHI TIWARI	Recording, analyzing and modelling the canopy and micro-climate suitability of birds	HUKUM SINGH	BIO
168	2015B5PS0789P	SANSKRITI CHITRANS	Ion source development	MANAS MUKHERJEE	PHYSICS
169	2015B5TS0961P	SAMRIDHI	Nanostructured gas sensors	R K GUPTA	PHYSICS
170	2017A7TS0017P	ROHAN SAXENA	Deep Neural Networks for Scene Flow Estimation	DIDIER STRICKER	CSIS

**LIST OF HIGHER DEGREE DISSERTATIONS COMPLETED DURING THE YEAR 2018**

**Second Semester 2017-18**

S.No.	BITS ID	Name	Topic	Supervisor	Department
1	2016H1290011P	Rinki Gupta	Evaluation of the mechanism behind the bactericidal action of silver nanoparticles on <i>E. coli</i>	Jitendra Panwar	Biology
2	2016H1290012P	Hakeem Ifra Anis	Different strategic approaches regulating cancer cell growth	Rajdeep Chowdhury	Biology
3	2016H1290003P	Pujitha Lakshmi R	Infection Biology	Sandhya Marathe	Biology
4	2016H1290009P	Shitya Murali	Role of plasma membrane and actin cytoskeleton during spindle formation in mitosis	Sachin Kotak	Biology
5	2016H101014P	Rajan Singh	Nano catalyst system for H <sub>2</sub> production	Dr. Danasri Roy	Chemical
6	2016H101017P	Joshi Parth Ashishbhai	Experimental and Theoretical Investigation on steam gasification followed by catalytic conditionings.	Dr. Pratik N. Sheth	Chemical
7	2016H101021P	Pritish Prayag Sahoo	Design of soft-sensor for Reactive Distillation column	Prof. Hare Krishna Mohanta	Chemical
8	2016H101023P	Prasad Sunil Sahu	Novel catalyst for H <sub>2</sub> production from renewable energy sources	Dr. Srinivas Appari	Chemical
9	2016H101024P	Rajput Arti Ayodhya Prasad	Development of compact and eco-viable metallic nano-particle fixed bed for treatment of industrial wastewater	Prof. Suresh Gupta	Chemical
10	2016H101025P	Momin Xerxes Mehboob	Optimum Foam Quality for contaminated Soil Remediation and better detergent formulation	Dr. Pradipta Chattopadhyay	Chemical
11	2016H1300045P	Manoharan V	Air cargo modeling	Dr Prsanta K Sahu	Civil
12	2016H1440028P	Kunal Dhadse	Statistical analysis for water quality management in a river Basin : A modeling comprehensive downscaling technique with GIS	Dr Ajit Pratap Singh	Civil
13	2016H1440032P	Tripti Singh Rajput	Study of Swot analysis of Delhi metropolitan city	Dr Anupam Singhal	Civil
14	2016H1430038P	Prachuryya Kaushik	Investigation of ductile characteristics of concrete beams under elevated temperature	Dr. G. Muthukumar	Civil
15	2016H1430040P	Sivananthan V	Experimental investigation & numerical modeling study of flexural behavior of deep beam.	Dr. G. Muthukumar	Civil
16	2016H1300047P	Purshottam	Life cycle assessment of construction phases of highway using soft computing techniques.	Dr. Ajit Pratap Singh	Civil
17	2016H1300050P	Sushreeta Mishra	Quantification of rural accessibility	Dr Prasanta K Sahu	Civil
18	2016H1300051P	Anchal Srivastava	Reinforced Geopolymer concrete	Dr Vishakha Sakhare	Civil
19	2016H1300054P	Rashali Tripathi	Geopolymer paver blocks	Dr Vishakha Sakhare	Civil
20	2016H1300049P	Vidisha Khalpada	Optimal proportioning of the constituents for the grouted macadam mix design Optimal proportioning	Dr Nikhil Saboo	Civil
21	2016H1030077P	Yash Sinha	Real Time Monitoring of Quality of Service for Chosen Flows in Hybrid SDN	K Haribabu	CSIS
22	2012HS2H0144P	Akshay Madan	Resource management for solar powered cellular base stations.	Vinay Chamala	EEE



S.No.	BITS ID	Name	Topic	Supervisor	Department
23	2016H1420117P	Aman Agarwal	Related to supply chain management.	S. Routroy	Mech
24	2016H1420113P	Raval Kuldeep S.	Supply chain Management Related	S. Routroy	Mech
25	2016H1410098P	Vijay Khandelwal	Elastic Tail Provision at low Raynold Number	J.S. RathorE	Mech
26	2016H1410090P	Udit Singhal	Fracture, Creep and Residual Strers life prediction Technique.	P.Srinivasan	Mech
27	2016H1060128P	Palash Mungi	Reliability of Mechanical Components	R.P. MishrA	Mech
28	2016H1060119P	Shubhamgi Agarwal	Solar Energy	Manoj Soni	Mech
29	2016H1060124P	Prateek Jha	Experimental Investigations of elastic tail propulsion models.	J.S. Rathore	Mech
30	2016H1410094P	Ved Hitendra Parma	Identification of Crack in rotor system.	Arun K. Jalan	Mech
31	2016H1060132P	Samyak Samar	Solar energy	Manoj Soni	Mech
32	2016H1410091P	Shrikant S.Pawar	Analysis of surface error of thin walled elliptical geometry using FEM	T.C. Bera	Mech
33	2016H106120P	Prince Jain	Skin tribbology: An investigation of related attributes between Skin and associated	J.S. Rathore	Mech
34	2016H1420109P	Mohit Jagetiya	Exploring Learning capabilities in learning factories	K.S. Sangwan	Mech
35	2016H1060121P	Deepesh Gotherwal	Application of ANN in Managing demands in SCM	Girish Kant	Mech
36	2016H1060126P	V Nagavara Prasad S.	Fabrication and Modeling of Transcritical CO <sub>2</sub> ejector Refrigeration system	M.S. Dasgupta	Mech
37	2016H1060125P	Yasdeep Neema		A. M. Marathe	Mech
38	2016H1060133P	Abhishek Kumar Agrawal	Nonlinear finite evement analysis and nonlinear dynamics	A.M. Marathe	Mech
39	2016H1060127P	Raj Tilva	Numerical Simulation of sub-Cold Boiling flows	S.S.Yadav	Mech
40	2016H1460197P	Vishal Girdhar	QBD driven development evaluation and scale up of nanoformulation	Dr. Gautam Singhvi	Pharmacy
41	2016H1080175P	Shalini D.Patil	Design and characterization of nanocarrier loaded topical formulation	Dr. Gautam Singhvi	Pharmacy
42	2016H1460192P	Shakti Nagpal	Development and evaluation of multifunctional polymer based nanoparticles drug delivery for cancer	Dr Sunil K Dubey	Pharmacy
43	2016H1470185P	Arpit V. Patel	Formulation and development	Mr Arun Kumar Pandey,	Pharmacy
44	2016H1470182P	Shantanu D Shinde	Regulatory compliance in analytical development	Mr. Ujwal Chhabra,	Pharmacy
45	2016H1490243P	Tanmay Debnath	Usage of social media for effective knowledge dissemination in a higher educational institution	Mr. Nirankush Dutta	Mangt
46	2016H1490211P	Kritesh Gupta	Strategic Management	DR NEETU YADAV	Mangt
47	2016H1490216P	Smiti Saxena	Managerial skills among successful advocates: Astro-Psycho-Analysis	Dr. Sushila Pareek	Mangt
48	2011HD03680P	Siddharth Bhatia		Dr Rajiv Kumar	CSIS
49	2016H1420112P	Patel Krunal Kumar V	Supply Chain Management	Srikant Routroy	Mech
50	2016H1060130P	Kedar Hardas Patil	Thermal Conductivity Enhancement of Phase Change Material	P.Srinivasan	Mech
51	2016H1420112P	Krunal Patel	Supply chain	Prof. Srikanta Routroy	Mech

**First Semester 2018-19**

Sr. No	BITS ID	Name	Topic	Supervisor	Department
1	2017H1010029P	Amit Kumar	Bio-mitigation of Flue Gases using Algae Species	Dr. Smita Raghuvanshi	Chemical
2	2017H1010030P	B. Sai Hitesh	Hydrolysis of Agricultural Waste to Sugar by Solid State Catalysts	Dr. Banasri Roy	Chemical
3	2017H1010032P	Neha Jadhav	Preparation of Mixed Matrix Membranes for Biogas Upgradation	Dr. Bhanu V. Reddy K.	Chemical
4	2017H1010035P	Devesh Saxena	CFD Application in Bioreactor	Dr. Suresh Gupta	Chemical
5	2017H1010036P	Prasad Sudhir Ingle	CFD Modeling of Catalyst Poisoning Detailed Kinetics	Dr. Bhanu Vardhan R K	Chemical
6	2017H1010037P	Sampada Mahajan	Hydrolysis of Agricultural Waste to Sugar by Solid State Catalysts	Dr. Banasri Roy	Chemical
7	2017H1010038P	Hemanand T	Nonlinear System Identification and Control using WNN	Dr. Hare Krishna Mohanta	Chemical
8	2017H1010040P	Veeturi Uma Varun	Synthesis and Characterization of Conductive Polymer Nano-compounds.	Dr. Krishna C. Etika	Chemical
9	2017H1010041P	Akshay Khadelwal	Development of Continuous Bio-mitigation of CO <sub>2</sub> and Recovery of Products	Dr. Smita Raghuvanshi	Chemical
10	2017H1010042P	Devendra Purbia	Dual Catalyst Monolith Reactor for Biogas Reforming	Dr. Srinivas Appari	Chemical
11	2017H1010045P	Adwait Nagarkar	Identification and Isolation of WEO Degrading Bacterial Species from the Oil Contaminated Soil and Water	Dr. Amit Jain	Chemical
12	2017H1010046P	Vennu Revanth	Optimal Control of Bioreactors	Dr. Amit Jain	Chemical
13	2017H1010047P	K. Karthik	Flow Pattern and Transport in Loop Reactors	Dr. Arvind K Sharma	Chemical
14	2017H1010048P	G. Kameshwar Sharma	Development of Nano-Adsorbent for Textile Industry	Dr. Suresh Gupta	Chemical
15	2017H1010050P	Itishree Panda	Design Modifications in Biomass Gasifier	Dr. Pratik N. Sheth	Chemical

**LIST OF EQUIPMENTS PROCURED FOR 2018**

S.No.	Indent No.	Particulars	Used for Courses / Thesis / dissertation Computational / Administrative Work
<b>Biosciences Department</b>			
1	699	Dell Desktop	
2	871	Microscope Stand Axio Scope A1, etc.	
3	873	Innova 42R Stackable	
4	874	Centrifuge 5418R	
5	875	Innova U 725 Upright Freezer	
6	976	Ultrasonic Bath Model RK 103H	
7	1019	Shimadzu, UV-1800, UV-Vis spectrophotometer, etc.	
8	1020	Orbital Shaker, etc.	
9	1172	System, Chemidoc XRS+Imagelab Biorad, etc.	
10	1263	Thermo Scientific Forma 89000 Series Ultra Low Freezers	
11	253	Autoclave	
12	599	Desktop HP 200 G3 AiO	
13	640	5 KVA Make Uniline Online UPS	
14	720	Platform Trolley	
15	820	Desktop PC Assembled	
16	916	Avio 200 ICP-OES Cross Flow Spectrometer, etc.	
17	1040	Microscope Stand Axio Observer 7, etc.	
21	1008	Dell Desktops	
<b>Chemical Department</b>			
22	696	Bionics ® Multiposition Magnetic Stirrers, etc.	
23	697	Lutron AM-4204 Hot Wire Thermal Anemometer	
24	698	Moisture Meter	
25	789	Stack Monitoring System, etc.	
26	790	Digital Flow Meter with Transmitter	
27	926	Digital Mass Flow Controller, etc.	
28	1148	Refrigerated Circulating Liquid/Water Bath	
29	1161	Gangotree Make GET-5 Pelleting Machine	
30	1162	Digital Mass Flow Controller, etc.	
31	1163	Furnace with temp. controller, etc.	
32	940	Gas Flow Meter (Wet Type)	
33	941	Autoclave System	
34	942	Electronic Balance, etc.	
35	943	Vacuum Oven (45L)	
36	867	Microprocessor based Water Analysis kit	
37	1266	Temperature Recorder 16 Channel data logger	
38	1267	Rotary Vacuum Pump, Biogen	
39	832	Berghof High Pressure Reactor Model BR-100	
40	914	Micro Centrifuge REMI-R-24, etc.	

S.No.	Indent No.	Particulars	Used for Courses / Thesis / dissertation Computational / Administrative Work
<b>Chemistry Department</b>			
41	733	Rotatory Evaporator, etc.	
42	734	Rotary Shaker Horizontal Table Top Model	
43	735	Chemistry Vacuum System, etc.	
44	782	Melting Point Apparatus	
45	906	PCB of IKA Stirrer	
46	1115	Magnetic Stirrers	
47	1124	Heidolph Rotary Evaporator	
48	1125	Julabo F250 recirculating Cooler	
49	1126	Four Bed Demineraliser	
50	1127	Dehumidifier - LA Italia	
51	1128	Diaphragm Vacuum Pump, Model AD 2C	
52	590	Bruker Labscape Service Package for 400 MHz NMR Spectrometer	
<b>CIIE</b>			
53	1170	Dell Desktops & Laptop	
54	1229	Hitachi Projector CP-WX3042WN	
55	1230	Printer HP Hotspot M128FW, etc.	
<b>Civil Department</b>			
56	699	SANCO Fume Hoods	
57	883	BOD Incubator	
58	1151	Dell Desktops	
59	1234	Multipurpose Tilting Flume Apparatus	
60	1257	Stocks Law Apparatus, etc.	
61	1258	Laboratory Permeability Apparatus, etc.	
62	1259	Cube Mould Plastic, etc.	
63	1264	Waveform Option with License, etc.	
64	1269	NVR 8 Channel, etc.	
65	1281	Web Subscription of India Time Series for One Year	
<b>EEE Department</b>			
66	747	Visual TCAD & Genius Device Simulator	
67	836	Solar Panel 9V 200ma for DIY Projects, etc.	
68	854	Basic Configuration for Electrical Machines Lab	
69	966	Raspberry Pi Zero W Essentials Bundle	
70	967	IBM-MBED IOT Starter Kit Dev. Board	
71	1009	MIB520CB	
72	1010	Educational Practice Board, etc.	
73	1011	Mote-PC USB Interface board	
74	1028	GRAS General Purpose Array Microphone	
75	1178	Server 1: ThinkSystem SR530, etc.	
76	1232	Shaker V203 and Power Amplifier	
77	1268	Dell Desktop	
78	1271	Vibration Generator with Spring	
79	1272	Positive load, Loading Rheostat, etc.	
80	1273	Fluke Digital Multimeter, etc.	

S.No.	Indent No.	Particulars	Used for Courses / Thesis / dissertation Computational / Administrative Work
81	1274	IGBT Modules, etc.	
82	1275	3 Phase SQIM, etc.	
83	1276	KRB/Powerway, etc.	
84	1277	Microwave Signal Source, etc.	
85	1280	DCS Trainer (Model XPO-DCS), etc.	
86	129	Red Hat Enterprise Linux Server, etc.	
87	211	PCB layout charges, etc.	
88	228	ARM LPC2148 Development Board-Mini	
89	353	TMS320C6713 DSTP Starter Kit (DSK)	
90	958	Bench Mark Wicomm T	
91	1021	MCBSTM32F400UME	
92	1022	DragonBoard 410C	
<b>EMU</b>			
93	347	Voltas Water Cooler, etc.	
94	348	Aquaguard RO 50 LPH	
95	349	Fire Extinguishers	
96	497	Combination - Emergency Shower and Eyewash Station	
<b>Instrumentation Unit</b>			
97	795	Dell Insp 15 (7559), etc.	
98	1106	USB Hard Disk 1TB Seagate Expansion, etc.	
99	827	Samsung Mobile G885	
100	894	Impartus Lecture Capture Solution for 2 Classroom	
<b>IPC</b>			
101	981	IP Phones	
102	1016	HP 400 G4 Desktop, etc.	
103	1026	HP Server-04 Nos.	
104	1107	EX4300, 24 Port 10/100/1000 Base T, etc.	
105	1154	Ruckus Zonelfex R610 Smart Wi-Fi, etc.	
106	1155	Brocade ICX 7250 Switch, etc.	
107	1255	HP Laptop	
108	207	PS Services for Active Directory	
109	208	24 U Rack Fram (800x1000mm) wxd, etc.	
110	226	Fiber Lying in HDPE Duct, etc.	
111	436	Renewal of Support of Smart Zone 100 Controller	
112	445	5 Pair Jelly Filled Armored telephone cable	
113	498	EX-4300, 24-Port 10/100/1000 BaseT, etc.	
114	565	PS Services	
115	797	Molex Cat. 6 I/O only	
116	933	Transactional email with high deliverability	
117	935	XG 750 Security Appliance, etc.	
118	801	Prowessdx CMIE Database Indian Economy Pvt. Ltd., New Delhi	
<b>Mehcanical Engg. Department</b>			
119	1071	Buckling Testing Machine, etc.	
120	95	Serial Communication Cable (RS232 Cable), etc.	

S.No.	Indent No.	Particulars	Used for Courses / Thesis / dissertation Computational / Administrative Work
121	698	GilAir ® Plus Basic Single Starter kit	
122	889	Heat Exchanger Service Unit, etc.	
123	1024	Tissue Culture Hood	
<b>Medical Centre</b>			
124	464	Multipara Patient Monitor (G-30)	
125	613	PocketChem A1c, portable HbA1c Analyzer	
<b>Pharmacy</b>			
126	722	Rudolph Research Digital Polarimeter	
127	736	Paper-cum-Immuno Electrophoresis Apparatus	
128	748	Mitos Duo XS-Pump, etc.	
129	779	Melting Point Apparatus	
130	783	Microcontroller Based Flame Photo Meter	
131	862	Thermo Scientific Sorvall MX 150 Plus Micro-Ultracentrifuge	
132	864	Digital Ultrasonic Cleaner	
133	891	Aluminium Tube Crimping Machine	
134	892	Shaking Water Bath	
135	893	High Pressure Seamless N2 gas cylinder with regulator	
136	1002	CO2 Gas Cylinder Capacity	
137	1221	FreeZone Triad Benchtop Stoppering Tray Dryer and Lyophilizer	
138	1260	Centrifuge 5430R, etc.	
139	200	UPS 10 KVA	
<b>Physics</b>			
140	716	Measuring insert with open liquid cell	
141	780	Aplab 4.5 Digit Digital Multimeter	
142	781	Scientific SM6023 Precision LCR Meter	
143	832	Programmable Spin Coating System	
144	962	Vibrating String Apparatus, etc.	
145	1104	Current balance/force acting on a current-carrying, etc.	
146	1105	Tripod Base, etc.	
147	1118	Magnetic Hysteresis Loop Tracer	
148	472	Rotary Vane Vacuum Pump	
149	612	Hydraulic Crimping Machine CR2032	
150	660	Klystron Power Supply, etc.	
151	705	Mass Flow Controller, etc.	
152	706	HCS400-XR Hot and Cold Stage, etc.	
153	1006	Remi Centrifuge Machine	
154	1007	Picoammeter/Voltage Source, Part No. 6487	
155	1010	X326813IN8-Vostro 3268 Desktop, etc.	
156	1011	Opto-Electronic Measurement Unit	
157	1012	Precision LCR Meter	
158	399	Ambulance	TSS
159	555	Chassis Dyno & Accessories, etc.	WILPD
160	813	Annotator, Wacom DTK-1651	WILPD
161	239	Ricardo Software, Type: Grant, Term: 3 Years	WILPD

S.No.	Indent No.	Particulars	Used for Courses / Thesis / dissertation Computational / Administrative Work
162	843	Compound die set, etc.	Workshop
163	871	Dell Desktops	Workshop

**LIST OF SOFTWARE / LICENSE PROCURED FOR THE YEAR 2018**

1	1284	HP Server	ARCD
2	1194	Vlife MDS @ 4.6 Software	Bio
3	792	2 TB Cloud Storage, etc.	CAHU
4	866	3 Years LabVIEW standard service program inactive	Chem. Engg.
5	1084	Turbomole Software Upgrade	Chemistry
6	1137	Q-Chem 5.1 Software	Chemistry
7	1196	ChemDraw Professional 17 windows Annual	Chemistry
8	713	Rocscience Academic Bundle Advanced: includes S/w	Civil
9	1190	Visual Modflow Flex Premium	Civil Engg.
10	1191	Perpetual Single User License to NCSS 12	Civil Engg.
11	1192	Upgradation & Annual Technical support of Desktop University Lab Kit	Civil Engg.
12	1193	Heat Transfer Module, Single User	Civil Engg.
13	1100	Software Maintenance Service Dongle No.: 42337	EEE
14	1156	Synopsys EDA Tools	EEE
15	1179	VLSI Lab OS & Installation	EEE
16	1195	Advanced Control Education Kit	EEE
17	371	COM-1827 Continuous Phase Modulation Modem	EEE
18	1187	Microsoft OVS-ES Subscription Renewal	IPC
19	1189	Turnitin Originality Check License	IPC
20	359	AV Software Subscription Renewal	IPC
21	766	Grammarly Premium (Academic Annual)	Management
22	767	SmartPLS 3 Professional, Single User	Management
23	768	Nvivo 11 Pro Full License	Management
24	776	NumXL 1.6X Annual License	Management
25	1210	Heat Transfer Module, Class Kit License, etc.	Mech. Engg.
26	229	Mastercam Educational Suite	Mech. Engg.
27	361	IBM SPSS Base Module Version 25.0, etc.	Mech. Engg.
28	306	Adobe Acrobat Pro 2017 Edu Lic.	VC Branch
29	215	PTC Global Support Renewal for University Plus	WILPD
30	216	Minitab 18 Academic Multiuser	WILPD
31	217	Content development for WILP program	WILPD

## CUMULATED LIST OF BOOKS PUBLISHED UNDER THE AUTHORSHIP OF BITS FACULTY

### A. Text Books

S.No.	Author	Title	Publisher	Year
<b>Bio Sciences</b>				
1.	Rastogi, S.C.	An outline of Developmental Physiology	Rajasthan Hindi Granth Academy, Jaipur	1973
2.	Rastogi, S.C.	Essentials of Animal Physiology	Wiley Eastern, New Delhi	1977
3.	Rastogi, S.C.	Experimental Physiology	Wiley Eastern, New Delhi	1982
4.	Mitra, Sandhya	Elements of Molecular Biology	MacMillan	1982
5.	Rastogi, S.C.	Cell Biology	Tata McGraw Hill, New Delhi	1988
6.	Rastogi, S.C.	Biochemistry	Tata McGraw Hill, New Delhi	1993
7.	Rastogi, S.C., Sharma, V.N., Tandon, A.	Concepts in Molecular Biology	Wiley Eastern, New Delhi	1993
8.	Mitra, Sandhya	Essentials of Genetics	Tata McGraw Hill, New Delhi	1994
9.	Mitra, Sandhya	Business of Living	Wiley Eastern, New Delhi	1994
10.	Roy, U., Saxena V.	A Handbook of Genetic Engineering	Kalyani Publications	2007
11.	Ashish Runthala	Hunting Drugs for Potent Antigens in the Silicon Valley	IGI GLOBAL	2010
<b>Chemical</b>				
12.	Khan, F.I., Abbasi, S.A.	Risk assessment of chemical process industries: advanced techniques	Discovery Pub. House	1998
13.	Abbasi, S.A., Krishnakumari, Khan, F.I.	Hot topics: Global warming, acid rain, ozone hole, industrial disasters, disinfection	Oxford India Pr.	1999
14.	Babu, B.V.	New Optimization Techniques in Engineering	Springer-Verlag, Heidelberg, Germany	2004
15.	Babu, B.V.	Process Plant Simulation	Oxford University Press, India	2004
16.	Babu, B.V.	One Chapter in the Book Advances in Computational Optimization and its Applications	Universities Press, Hyderabad	2007
17.	Babu, B.V., Angira, R.	One Chapter in the Book Soft Computing Applications in Industry	Springer Verlag	2007
18.	Babu, B.V., Angira, Rakesh	Optimization of Industrial Processes using Improved and Modified Differential Evolution	In Soft Computing Applications in Industry, Edited by Bhanu Prasad, Springer-Verlag, Heidelberg, Germany.	2008
19.	Babu, B.V., Ramakrishna, V.	Water Crisis: Origin Identification and Management	In India's Water Crisis, Edited by K R Gupta, Atlantic Publishers, New Delhi	2008
20.	Babu, B.V., Gupta. S.	Removal of Heavy Metal Pollutants from Wastewater Using Low Cost Absorbents	In India's Water Crisis, Edited by K R Gupta, Atlantic Publishers, New Delhi	2008
21.	Ashish M. Gujarathi and B. V. Babu (contributed a chapter in Advances in Chemistry and Chemical Engineering)	Advances in Optimization and Simulation of Low Density Polyethylene (LDPE) Tubular Reactor	Nova Science Publishers, USA	2010
22.	Ashish M. Gujarathi and B. V. Babu (contributed a chapter in Handbook of Optimization)	Multi-objective Optimization of Low Density Polyethylene (LDPE) Tubular Reactor using Strategies of Differential Evolution	Springer, Germany	2010
<b>Chemistry</b>				
23.	Choudhari, Roy T.	Basic Engineering Thermodynamics	Tata McGraw Hill, Bombay	1973
24.	Choudhari, Roy T.	Applied Engineering Thermodynamics	Tata McGraw Hill, Bombay	1973
25.	Gupta, S.P.	Quantum Biology	New Age, New Delhi	1997



S.No.	Author	Title	Publisher	Year
26.	Khan, F.I., Abbasi, S.A.	Risk assessment of chemical process industries: advanced techniques	Discovery Pub. House	1998
27.	Srivastava, R.C., Saha, S.K., Jain, A.K.	Thermodynamics- A Core Course	Prentice Hall, New Delhi	2004
28.	Gupta, S.P., Gupta, R.R.	QSAR & Molecular Modeling Studies in Heterocyclic Drugs II	Springer-Verlag, Berlin	2007
<b>Civil Engineering</b>				
29.	Moondra, H.S. & Gupta, Rajiv	Laboratory manual for civil engineering	CBS, New Delhi	1992
30.	Gupta, Rajiv	Construction planning & technology Second Edition	CBS New Delhi	1994
31.	Ghoshal, S.	Microprocessor based system design	Macmillan Publishers, Gurgaon	1996
32.	Ghoshal, S.	Computer-Aided analysis & design	PHI Learning Pvt. Ltd., New Delhi.	1997
33.	Raju KS, Sarkar AK and Dash ML (Ed);	Integrated Water Resources Planning and Management;	Jain Brothers, New Delhi.	2004
34.	Kumar, Kamlesh	Basic Geotechnical Earthquake Engineering	New Age International Publishers, Limited, New Delhi.	2006
35.	Raju, K.S.	Prediction in Ungauged Basins for Sustainable Water Resources Planning and Management	Jain Brothers, New Delhi	2007
36.	Kulkarni, D.M. & A.K. Sarkar	Engineering graphics with AutoCAD	PHI Learning Pvt. Ltd. , New Delhi.	2009
37.	K. Srinivasa Raju & D. Nagesh Kumar	Multicriterion Analysis in Engineering and Management	PHI Learning Pvt. Ltd. , New Delhi.	2010
38.	K. Srinivasa Raju & A. Vasani (Ed.)	Sustainable Water Resources Management and Impact of Climate Change	B.S. Publications, Hyderabad.	2010
39.	Sarkar A.K; V R Rao; S S Arkatkar; I Ghosh	Fundamentals of Transportation Systems (Class XI)	Central Board of Secondary Education; New Delhi.	2013
40.	Singh, S. B.	Analysis and Design of FRP Reinforced Concrete Structures,	McGraw-Hill Education Pvt. Ltd., New Delhi & New York	2014, 2015
41.	Kumar, Kamlesh	Basics of Environmental Resource Management	New Age International Publishers, Limited, New Delhi.	2015
42.	Kumar, Kamlesh	Basic Geotechnical Earthquake Engineering	2nd Edition, New Age International Publishers.	2017
<b>Computer Science</b>				
43.	Mathur, A.P., Arora K.S., Reddy U.S.	Introduction to Pascal	Tata McGraw Hill, New Delhi	1983
44.	Mathur, A.P.	Introduction to Microprocessors (Third Ed.)	Tata McGraw Hill, New Delhi	1989
45.	Sharan, S.N.	Fundamentals of Expert System	CBS, New Delhi	1993
46.	Banerjee, Rahul	Architecture and Conceptual Design of the Unix System	Khanna Publishers	1993
47.	Banerjee, Rahul	Internetworking Technologies: An Engineering Perspective	Prentice Hall of India	2003
48.	Ghosh, S.	Programming in C	Prentice Hall of India	2004
<b>Electrical &amp; Electronics Engineering</b>				
49.	Maheshwari, L.K., Anand, M.M.S.	Laboratory Manual for Introductory Electronics Experiments	New Age International Publisher	1979
50.	Jain, R.P.	Modern Digital Electronics	Tata McGraw Hill, New Delhi	1984
51.	Jain, R.P., Anand, M.M.S.	Digital Electronics	Tata McGraw Hill, New Delhi	1984
52.	Ramanan, K.V.	Functional Electronics	Tata McGraw Hill, New Delhi	1984
53.	Iyer, T.S.K.V.	Circuit Theory	Tata McGraw Hill, New Delhi	1985
54.	Nagrath, I.J., Kothari, D.P.	Modern Power System Analysis (Second Ed.)	Tata McGraw Hill, New Delhi	1989
55.	Nagrath, I.J.	Basic Electrical Engineering	Tata McGraw Hill, New Delhi	1991
56.	Maheshwari, L.K., Kapoor, A.	Digital Electronics	McMillan India, New Delhi	1992

S.No.	Author	Title	Publisher	Year
57.	Khare, R.P.	Analysis Instrumentation	CBS, New Delhi	1993
58.	Nagrath, I.J., Kothari, D.P.	Power Systems Engg.	Tata McGraw Hill, New Delhi	1994
59.	Nagrath, I.J., Kothari, D.P.	Theory and Problems of Electrical Machines (TMH outline series)	Tata McGraw Hill, New Delhi	1996
60.	Nagrath I.J., Kothari, D.P.	Electric Machines (Second Ed.)	Tata McGraw Hill, New Delhi	1997
61.	Nagrath, I.J.	Electronics: Analog and Digital	Prentice-Hall of India, New Delhi	1998
62.	Nagrath, I.J. Kothari, D.P.	Theory and Problems & Basic Electrical Engineering	Prentice-Hall of India, New Delhi	1998
63.	Nagrath, I.J. Sharan, S.N. Ranjan, R. Kumar, S.	Signals and Systems	Tata McGraw Hill, New Delhi	2001
64.	Anand, M.M.S.	Electronics Instruments & Instrumentation Technology	PHI	2003
65.	Ghosh, S.	Fundamentals of Electrical and Electronics Engineering	Prentice Hall of India	2003
66.	Khare, R.P.	Fiber Optics and Optoelectronics	Oxford University Press	2004
67.	Bansal, R.C.	One Chapter in the Book Electric Vehicles	CRC Press	2005
68.	Ghosh, S.	Electrical Machines	Pearson Education	2005
69.	Maheshwari, L.K., Anand, M.M.S.	Analog Electronics	Prentice Hall of India, New Delhi	2005
70.	Maheshwari, L.K., Anand, M.M.S.	Laboratory experiments and PSPICE simulations analog electronic	Prentice-Hall of India	2006
71.	Bhattacharya, D.K., Sharma, Rajnish	Solid State Electronic Devices	Oxford University Press, New Delhi	2007
72.	Surekha Bhanot	Process Control-principles and applications Rejuvenation without medicines	Oxford University Press	2008
73.	Khare, R.P., Dixit, R.K.	[English translation of 'Bina Aushadhiyon ke Kayakalp' (in Hindi) by Pt Shriram Sharma Acharya]	Shri Vedmata Gayatri Trust, Shantikunj, Haridwar	2008
74.	Shambhudass, Khare, R.P.	Companions in Solitude [English translation of 'Sunsan ke Sahachar' (in Hindi) by Pt Shriram Sharma Acharya – Translation by V. A. Shivshankaran]	Shri Vedmata Gayatri Trust, Shantikunj, Haridwar	2008
75.	Navneet Gupta	Principles of Material Science and Engineering	Dhanpat Rai & Co., New Delhi	2001
76.	Navneet Gupta	Semiconductor Materials and Devices	Dhanpat Rai & Co., New Delhi	2006
77.	Navneet Gupta	Fundamentals of Electronic Devices	Dhanpat Rai & Co., New Delhi	2009
78.	L.S. Bobrow and Navneet Gupta	Foundation of Electrical Engineering: Asian Edition	Oxford University Press, New Delhi	2013
79.	William Stallings & V K Chaubey (adaptation)	Wireless Communications Networks	Pearson Education Second Edition Indian Subcontinent adaptation	2009
<b>English</b>				
80.	Krishna Mohan, Manerjee, Meera	Developing Communication Skills	MacMillan India Ltd., New Delhi	1990
81.	Sharma, R.C. Krishna Mohan	Business Correspondence and Report Writing (2nd Ed.)	Tata McGraw Hill, New Delhi	1994
82.	Krishna Mohan, Raman, Meenakshi	Effective English Communication	Tata McGraw-Hill, New Delhi	2000
83.	Raman, Meenakshi [Ed.]	English Language Teaching	Atlantic Publishers and Distributors Ltd, New Delhi	2004
84.	Raman, Meenakshi, Singh, Prakash	Business communication.	Oxford University Press	2006
85.	Lata, Pushp Sanjay Kumar	Communicate or Collapse	Prentice Hall of India, New Delhi	2007
86.	Krishna, M., Sharma Sangeeta	Frozen Ripple	Future Publishers, Howrah	2007

S.No.	Author	Title	Publisher	Year
87.	Sarangi, J., Mishra Vinod	Explorations in Australian Literature	Sarup and Sons, New Delhi	2007
88.	Meenakshi Raman and Sangeeta Sharma.2017.	Technical Communication- Principles and Practice For Gujarat technological University. .	2nd Edition. OUP: New Delhi..	2017
89.	Raman, Meenakshi Sangeeta Sharma	Technical Communication: English Skills for Engineers	OUP, New Delhi.	2009
90.	Pushp Lata and Sanjay Kumar	Communicate to Conquer: A Handbook of Group Discussion and Job Interviews with DVD	New Delhi: Prentice Hall of India (PHI)	2010
91.	Chauhan Gajendra S. and Sharma Sangeeta	Soft Skills- An integrated approach to maximize personality (Coauthor)	Wiley: New Delhi.	2015
92.	Chauhan Gajendra S.	Soft Skills- An integrated approach to maximize personality (Coauthor)	Wiley: New Delhi.	2015
93.	Sharma Sangeeta,	Technical Communication- Principles and Practice (Coauthor)	Third Edition. OUP: New Delhi.	2015
94.	PushpLata	Co-author,Communication Skills,	Second Edition, New Delhi: Oxford University Press (OUP),	2015
<b>Engineering</b>				
95.	Nagrath I.J., Madan Gopal	Systems : Modelling and Analysis	Tata McGraw Hill, New Delhi	1982
96.	Nagrath I.J., Madan Gopal	Control Systems Engineering (Second Ed.)	Wiley Eastern, New Delhi	1982
97.	Subramanian, K.R.V., Kadayam, S.R.	System Simulation: An Introduction to GPSS	CBS Publishers, New Delhi	1992
98.	Gupta, A.	Systems Analysis	CBS, New Delhi	1993
99.	Bansal, R.C., Bhatti, T.S., Kothari, D.P.	Small Hydro Power System	Dhanpat Rai and Company	2004
100.	Ghosh, S.	Control Systems: Theory and Applications	Pearson Education	2004
101.	Gupta, Rajiv, Nagrath, I.J.	Introduction to Systems	New Age International Publishers	2005
102.	Ghosh, S.	Network Theory: Analysis and Synthesis	Prentice Hall of India	2005
<b>Humanistic Studies</b>				
103.	Prakash, Nirupama, Dash, Motilal	Conflict Resolution: Peace Development	Jain Brother, New Delhi	2004
104.	Dash, Motilal, Dhyani, Umesh	Entrepreneurship Culture	Allied Publishers, New Delhi	2005
105.	Sachdev, K.N.	Ethics: A Virtue Theoretic Approach	Adhyayan Publishers & Distributors, Delhi	2005
106.	Sachdev, K.N., Maharana, S.K.	Perspectives on Indian Ethics	Icon Publishers, New Delhi	2007
107.	Maharana, Suryakant	Bhārtrhari on Word and Consciousness: The Advaita Perspective” in Dr. K.S.Prasad (ed.) Language and Mind The Classical Indian Perspective, Vol 2	Decent Books (D.K. Printworld Publishers), New Delhi, pp. 147-148	2008
108.	Prakash, Nirupama	Safe motherhood in globalized world	Routledge, London	2009
<b>Instrumentation</b>				
109.	Anand, M.M.S.	Electronic Instruments and Instrumentation Technology	Prentice Hall, New Delhi	2004
<b>Mathematics/Physics</b>				
110.	Bose, R.K., Joshi, M.C.	Methods of Mathematical Physics	Tata McGraw Hill, New Delhi	1984
<b>Mathematics</b>				
111.	Krishnamurthy, V., Mainra, V.P., Arora, J.L.	Introduction to Linear Algebra	Affiliated East-West Press Pvt. Ltd., New Delhi	1976
112.	Pant, J.C.	Project Management: CPM, PERT, PERT with Linear Programming (Third Ed.)	Jain Brothers, New Delhi	1994
113.	Patnaik, R.K.	Calculus - Differential and Integral	CBS Publishers, New Delhi	1994
114.	Pant, J.C.	Introduction to Optimization:	Jain Bros., New Delhi	2000

S.No.	Author	Title	Publisher	Year
		Operations Research (Fifth Ed.)		
115.	Prasad, Devi	Introduction to Numerical Analysis	Narosa, Publishing House	2005
116.	Johnson, R.A., Gupta, C.B.	Miller and Freund's Probability and Statistics For Engineers	Pearson Education, New Delhi	2005
117.	Prasad, Devi	Elementary linear algebra.	Narosa Publishing House	2006
118.	Ganesh, M.	Introduction to fuzzy sets and fuzzy logic.	Prentice-Hall of India	2006
119.	Mishra, B.N., Mishra, B.K.	Optimization: linear programming	Ane Books	2006
120.	Dubey, Balram	Introductory Linear Algebra	Asian Books, New Delhi	2007
121.	Gupta, C.B.	Quantitative Methods	Asian Books, New Delhi	2007
122.	Sathpathi, D.K., Mishra, B.K.	Mathematical Modeling	Ane Books India, New Delhi	2007
123.	Ganesh, M.	Basics of Computer Aided Geometric Design : An Algorithmic Approach	IK International Publishing house Pvt. Ltd., New Delhi	2008
124.	Gupta, C.B., Mallik, K.	Engineering Mathematics-I	New Age Publications, New Delhi	2008
125.	Gupta, C.B., Mallik, K.	Engineering Mathematics-II	New Age Publications, New Delhi	2008
126.	Gupta, C.B.	Application of Optimization in Operations Research	IK International Publishing house Pvt. Ltd., New Delhi	2008
127.	Sharma, B.K.	A Text Book of Engineering Mathematics II	Asian Books Pvt. Ltd., New Delhi	2008
128.	Gupta, C.B.	Advanced Mathematics	NAIL, New Delhi	2009
129.	Krishnamurthy, V.	Combinatorics - Theory and Applications	East-West Press Pvt. Ltd., New Delhi. Also repub- lished by Ellis Horwood, U.K.	1985, 1986
130.	CB Gupta, SR Singh and Sandeep Kumar	Advanced Discrete Structure	IK International, New Delhi	2010
131.	DS Chauhan, KN Singh, Paresh Vyas, Rakesh Pandey, Subhash Yadav, Trilok Mathur	Beez Ganita (Algebra)	Vardhman Mahaveer Open University, Kota	2010
132.	SP Goyal, AK Goyal, Vimlesh Soni, Sunil Saxena, Trilok Mathur	Sammishra Vishleshan (Complex Analysis)	Vardhman Mahaveer Open University, Kota	2010
133.	Gupta, Kantesh, Garg, Atul, Shekhawat, K.S., Shekhar Chandra, and Goswamy, Pranay	Differential Equations, Calculus of Variations and Special Functions	Vardhman Mahaveer Open University, Kota	2010
134.	Gupta, C.B., Singh S. R. and Kumar, Mukesh	Engineering Mathematics	Tata MCGraw Hill Education, New Delhi	2015
<b>Management Studies</b>				
135.	Dhyani, Umesh, Dash, Motilal, Kumar, Arya	Grass Roots Entrepreneurship- Strategy for Development	Jain Book Agency	2004
136.	Sharma, Sangeeta, Singh, Raghuveer	Advertising: Planning and Implementation.	Prentice-Hall of India	2006
137.	Anubhavananda Swami, Kumar, Arya	Management with Difference	Ane Books India, New Delhi	2007
138.	Bhat, Anil, Kumar, Arya	Management – Principles, Processes and Practices	OUP, New Delhi.	2008
139.	Chaudhary, Omvir & Singh, Prakash	Principals of Management	New Age International Publishers	2011
140.	Mechanical Engineering			
141.	Vaishwanar, R.S., Lakshmi-narayanan, V.	A Textbook of Practical Geometry (Ninth Ed.)	Jain Brothers, New Delhi	1992
142.	Mittal, R..K, Nagrath, I.J.	Robotics & Control	TMH	2003
143.	Parasar, B.S.N., Mittal, R.K.	Workshop Practice	Prentice Hall of India	2003
144.	Mittal, R.K., Sharma, N.N.	Emerging Mechanical Technology	RPS Press, Chennai	2007
145.	Prakash, Ravi	Nondestructive Testing Techniques	New Age Int. Publishers, New	2007

S.No.	Author	Title	Publisher	Year
146.	Parashar, B.S.N.	Cellular manufacturing systems	Delhi PHI, New Delhi	2009
<b>Pharmacy</b>				
147.	Parimoo, P.	Textbook of Medicinal Chemistry	CBS, New Delhi	1995
148.	Mithal, B.M.	Textbook of Pharmaceutical Formulation (Sixth Ed.)	Vallabh Prakashan, New Delhi	1997
149.	Mithal, B.M.	Textbook of Forensic Pharmacy (Tenth Edition)	Vallabh Prakashan, New Delhi	1998
150.	Parimoo, P.	Pharmaceutical Analysis	CBS, New Delhi	1998
151.	Mithal, B.M., Saha, R.N.	Handbook of Cosmetics	Vallabh Prakashan, New Delhi	2000
152.	Sriram, D. Yogeeswari, P.	Medicinal Chemistry	Pearson Education, New Delhi	2007
<b>Physics</b>				
153.	Srivastava, Rajesh & Choubisa, Rakesh	Atomic and Molecular Physics	Narosa Publishing House	2011
<b>Science &amp; Technology</b>				
154.	Mitra, C.R., Mandke, Parimal	S & T in Action	Prentice Hall, New Delhi	1988
155.	Mitra, C.R., Mandke, Parimal	Managing S&T – Conceptual Design of Management Tasks	Wiley Eastern Ltd, New Delhi	1989
<b>Economics &amp; Finance</b>				
156.	Machiraju, H.R.	Working of Stock Exchanges in India	Wiley Eastern, New Delhi	1994
157.	Machiraju, H.R.	Principles and Practice of Merchant Banking	Wiley Eastern, New Delhi	1994
158.	Arya Kumar and Anil Bhat	Principles of Management- Competencies/Processes/ Practices/ 2 <sup>nd</sup> edition of the book	Oxford University	2016
<b>B. Other Than Text Books</b>				
159.	Misra, S.D.	Amarakosh with Krishnamitra's Commentary in Sanskrit	Indira Prakashan, Patna	1972
160.	Sharma, R.C.	An approach to King Lear	McMillan, Madras	1975
161.	Mehta, H.C.	Science and Society in the University	Jain Bros., New Delhi	1976
162.	Prasad, S.N.	Studies in Gunedhya	Choukhamba Or-ientalia, Varanasi	1977
163.	Gaur, V.P.	Mahatma Gandhi : A study of his Message of Non- violence	Sterling, New Delhi	1977
164.	Krishna Mohan (Ed.)	Higher Education – A BITS Experiment	BITS, Pilani	1977
165.	Tewary, V.K.	Mechanics of Fibre Composites (International Edition)	Wiley Eastern, New Delhi John Wiley, New York	1978
166.	Prasad, S.N.	Katha Sarit Saagar Tatha Bhartiya Sanskriti	Choukhamba Or-ientalia, Varanasi	1978
167.	Krishna Mohan, Chatterjee, B.	A Practice Book of English Structure & Composition	Ram Prasad & Sons, Agra	1978
168.	Misra, S.D.	Advait Vedantamen Abhasavada	Indira Prakashan, Patna	1979
169.	Srivastava, G.P., Tiware, S.Y.	Special Relativity (Hindi)	Rajasthan Hindi Granth Akadami, Jaipur	1979
170.	Mandke, V.V.	BITS Practice School, A case study in Industry- University Collaboration	BITS, Pilani	1980
171.	Krishna Mohan (Ed.)	Practice School: A New Concept in Higher Education	BITS, Pilani	1980
172.	Sharma, R.C. & others	Scientific Contexts	Tata McGraw Hill, New Delhi	1980
173.	Prasad, S.N.	Kalyanamalla's Anangaranga on Indian Erotics	Choukhamba Ori-entalia, Varanasi	1982
174.	Sharma, R.C. (Ed.)	Modern India, Shifting Perspectives, in honour of Dr. C.R. Mitra	S. Chand & Co., Delhi	1982
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191.	Raman, Meenakshi [Ed.]	Critical Perspective in American Literature	Atlantic Publishers and Distributors Ltd., New Delhi	2005
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194.	Ghosh, S.	Control Systems for the JNTU	Pearson Education	2005
195.	Sachdev, Kumar Neeraj	Ethics: A Virtue-theoretic Approach	Adhyayan Publishers & Distributors, Delhi	2005
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202.	Mishra, Binod	Critical Response to Feminism.	Sarup & Sons Publishers, New Delhi	2006
203.	Mishra, Binod	Grammar in Use (A series of three books for Class VI, VII and VIII)	Arvind Publications, Meerut.	2006
204.	Ghosh, Smarajit	Signals and systems	Pearson Education	2006
205.	Fatmi, S.N.	Social Ecology and Agrarian Classes	Icon Publications, New Delhi	2006
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209.	Modak, Pintu	Stretch and relax	Khel Sahitya Kendra, New Delhi	2009
210.	Krishna Mohan, Meenakshi Raman	Advanced Communicative English	TMH, New Delhi	2009
211.	Raman, Meenakshi	Soft Skills: Cornerstone of Professional Success	Jain Brothers, New Delhi	2009
212.	Raman, Meenakshi, Sangeeta Sharma	Communication skills for Mumbai University	OUP, New Delhi	2009
213.	Raman, Meenakshi, Sangeeta Sharma	Professional Communication for UPTU	OUP, New Delhi	2009
214.	Raman, Meenakshi, Sangeeta Sharma	Communicative English for BPUT	OUP, New Delhi	2009
215.	Sharma, Sangeeta	Pester power effect of advertising on Children	CIPS, Jaipur	2009
216.	Sharma, Sangeeta & Binod Mishra	Communication Skills for engineers and scientists	PHI, New Delhi	2009
217.	Mishra, Binod & Gajendra S. Chauhan	Communication in a globalised world	Authors Press, New Delhi	2009
218.	Lata, Pushp & Sanjay Kumar	Communicate to conquer	PHI, New Delhi	2009
219.	Raman, Meenakshi & Sharma, Sangeeta	Technical Communication	Oxford Higher Education	2011
220.	Geetha, B. & Sarwal, Amit	Exploring Science Fiction	SSS Publications, New Delhi	2011
221.	Modad, Pintu & Debnath, KK	Science of Sports Training: A Comprehensive Approach	Sports Publications, New Delhi	2011
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224.	Rajiv Gupta and David James	Edited the papers of International Conference on Sports Engineering (ICSE 2017), October 23-25, Jaipur	Excel Printing, New Delhi	2017
225.	Bahurudeen, A, Prasanta K. Sahu, and Nikhil Saboo	Construction materials and technology", National Mission Project on Pedagogy (Main Phase), outcome based technical notes, 2017	Sponsored by IIT Kharagpur.	2017
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229.	D. Sriram, P. Yogeeswari	Medicinal Chemistry	Pearson Education, II edition	2010
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11. Choubisa, Rajneesh reviewed articles for Computers in Human Behavior Published by Elsevier Science Direct [ISSN: 0747-5632]; Journal of Happiness Studies Published by Springer [ISSN: 1573-7780]; Cogent-Psychology (Taylor & Francis) [ISSN: 2331-1908]; Peer Reviewer and Scientific Committee Member (5<sup>th</sup> World Congress of Positive Psychology, Montreal, Canada.); Reviewer for 78<sup>th</sup> Annual Meeting of the Academy of Management (OB/HR Track) - (10-14th August 2018; Chicago, Illinois.); Reviewer (Research & Practice Track) for 6<sup>th</sup> World Congress of Positive Psychology scheduled on 19-25 July 2019 at Melbourne (Australia); Consulting Editor for Pakistan Journal of Psychological Research, National Institute of Psychology, Islamabad, Pakistan.
12. Sailaja Nandigama provided services as a reviewer for the SCOPUS indexed journal titled, Women's Studies International Forum (Elsevier).
13. Sailaja Nandigama is invited as an Editorial member of the Open Journal of Women's Studies which is an international open access journal dedicated to gender studies in developing societies.
14. Sailaja Nandigama is providing her services as the Editorial member of the Journal of International Women's Studies which is an international journal dedicated to gender studies.
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16. Meenakshi Raman and Sangeeta Sharma. Technical Communication 3e (Combo for KIIT). OUP. New Delhi. 2018.
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41. Deepali Gupta, Radhakrishnan Mahesh, *Antidepressant therapy for depression: An update, Understanding Depression: Volume 2. Clinical Manifestations, Diagnosis and Treatment*, Springer Nature Singapore Pvt. Ltd.
42. Surve Dhanashree Hemant, Paul Atish Tulsiram, Jindal Anil B, *Nanotechnology based delivery of nutraceuticals in Environmental Nanotechnology, Environmental Chemistry for a Sustainable World (Volume 2)*, Springer.
43. Vinayak S Mharugde, Sudeep Pukale, Saurabh Sharma Sharma, Anupama Mittal, Deepak Chitkara , *Advancements in polymeric systems for nucleic acid delivery, Molecular Medicines for Cancer: Concepts and Applications of Nanotechnology*, CRC Press, Taylor Francis, Florida, USA.
44. Gautam Singhvi, Saswata Banerjee, Archana Khosa, *Lyotropic liquid crystal nanoparticles: A novel improved lipidic drug delivery system, Organic Materials as Smart Nanocarriers for Drug Delivery*, Elsevier.
45. Gautam Singhvi, Rapalli Vamshi Krishna, Kowthavarapu V. Krishna, Sunil Kumar Dubey, *Alginate: Drug Delivery and Application, Alginates: Versatile Polymers in Biomedical Applications and Therapeutics* Apple Academic Press.

#### **Book Published**

##### **Department of Pharmacy:**

46. Deepak Chitkara, Anupama Mittal, and Ram I. Mahato, *Molecular Medicines for Cancer: Concepts and Applications of Nanotechnology*, CRC Press, Taylor Francis, Florida, USA.

## SENIOR OFFICERS AT PILANI CAMPUS

### Institute Wide:

**Vice-Chancellor:** Prof. Souvik Bhattacharyya  
**Registrar:** Mr. Ernest Samuel Ratnakumar J  
**Chief Financial Officer:** Mr. Arun Khetan  
**Dean, Academic-Undergraduate Studies (AUGS):** Prof. Ajit Pratap Singh  
**Dean, Academic-Graduated Studies & Research (AGSR):** Prof. Srinivas Krishnaswamy  
**Dean, Alumni Relations:** Prof. Arya Kumar  
**Dean, Faculty Affairs:** Prof. Souri Banerjee  
**Dean, International Programmes and Colloboration:** Prof. Suman Kapur  
**Dean, Practice School:** Prof. S. Gurunarayanan  
**Dean, Sponsored Research and Consultancy:** Prof. Sunil Bhand  
**Dean, Work Integrated Learning Programmes:** Prof. S. Balasubramaniam

### Campus Specific:

**Director:** Prof. Ashoke Kumar Sarkar  
**Dean, Administration:** Prof. Sanjay Kumar Verma  
**Associate Dean, Academic- Undergraduate Studies:** Prof. Suresh Gupta  
**Associate Dean, Academic- Graduate Studies & Research:** Prof. Jitendra Panwar  
**Associate Dean, Faculty Affairs:** Prof. Anshuman Dalvi  
**Associate Dean, Sponsored Research and Consultancy:** Prof. Navneet Gupta  
**Associate Dean, International Programmes and Collaboration:** Prof. Dalip Kumar  
**Associate Dean, Work Integrated Learning Programmes:** Prof. P. Srinivasan  
**Associate Dean, Work Integrated Learning Programmes:** Prof. Hitesh Datt Mathur  
**Associate Dean, Practice School:** Prof. Anil Gaikwad Bhanudas  
**Associate Dean, Student Welfare Division:** Prof. Srikanta Routroy  
**Associate Dean, Alumni Relations:** Dr. Rajeev Sakhuja

### Off-Campus:

**Associate Dean, WILP:**  
1. Prof. G. Venkiteswaran  
2. Prof. P.B. Venkataraman  
**Associate Dean, Practice School :** Prof. Annapoorna Gopal

**UNIT CHIEFS**

<u>UNIT</u>	<u>NAME</u>
1. Centralised Purchases	Prof. N.V. Muralidhar Rao
2. Placement & Workshop	Prof. K.S. Sangwan

**HEADS OF DEPARTMENTS**

<u>DEPARTMENT</u>	<u>NAME</u>
1. Biological Sciences	Prof. Prabhat Nath Jha
2. Chemical Engineering	Prof. Hare Krishna Mohanta
3. Chemistry	Prof. Saumi Ray
4. Civil Engineering	Prof. Anshuman
5. Computer Science & Information Systems	Prof. Poonam Goyal
6. Economics & Finance	Prof. Arun Kumar Giri
7. Electrical & Electronics Engineering	Prof. V.K. Chaubey
8. Humanities & Social Sciences	Prof. S.K. Choudhary
9. Management	Prof. Jyoti
10. Mathematics	Prof B.K. Sharma
11. Mechanical Engineering	Prof. Mani Sankar Dasgupta
12. Pharmacy	Dr. Paul Atish Tulshiram
13. Physics	Prof. Raj Kumar Gupta

**FACULTY-IN-CHARGE/OFFICIAL**

<u>CENTRE/SECTION/ENTITY</u>	<u>NAME</u>
1. First Degree Admissions Tests	Dr. S.U Belgamwar
2. Higher Degree & Ph.D. Admissions Tests	Prof. Shamik Chakraborty
3. Estate Management	Prof. Dipendu Bhunia
4. Public Relations, VFAST, Transport & Cafeteria	Prof. Virendra Singh Nirban
5. Entrepreneurial Leadership	Dr. Satyendra Kumar Sharma
6. Educational Technology Support	Dr. Virendra Singh Shekhawat
7. Institutional Knowledge Analysis Cell (IKA Cell)	Prof. Vishal Saxena
8. Infant Care Centra and Institute Functions	Prof. Devika
9. Societal Development (NSS and Nirmaan)	Dr. Ashish Tiwari
10. Publications and Media Relations	Prof. Sangeeta Sharma
11. Timetable	Prof. Udayan Chanda
12. Registration & Counseling	Dr. Jitendra Singh Rathore
13. Information Processing Centre and SD&ET	Prof. Yashvardhan Sharma
14. Instrumentation & Reprography	Prof. Karunesh Kumar Gupta
15. Teaching Learning Center	Dr. Kaushar Vaidya
16. Security Section	Shri Kishore Singh
17. Medical Center	Dr. Sanjana R Bhat (Officiating Superintendent)
18. HR Section	Mr. Arvind Soundarajan

**CHIEF WARDEN**

Prof. Navin Singh

**WARDENS**

**BHAWAN**

1. Ashok Bhawan
2. Bhagirath Bhawan
3. Budh Bhawan
4. Gandhi Bhawan
5. Meera
  
6. Malviya - A,B,C
7. Ram Bhawan
8. Rana Pratap Bhawan
9. Krishna Bhawan
10. Sir C.V. Raman Bhawan
11. Vishwakarma Bhawan
12. Srinivas Ramanujam
13. Vyas Bhawan
14. Day Scholar (Warden)

**NAME**

Dr. Kumar Sankar Bhattacharya  
Dr. Shuvendu Narayan Patel  
Dr. Sharad Shrivastava  
Dr. Nitin Chaturvedi  
Prof. (Ms.) Surekha Bhanot  
Prof. (Ms.) Kusum Lata  
Dr. Trilok Mathur  
Prof. Dipendu Bhunia  
Dr. Amol M Marathe  
Dr. Arun Kumar Jalan  
Dr. Paritosh Shukla  
Dr. Krishnendra Shekhawat  
Dr. Krishna M  
Dr. Sunil Kumar Dubey  
Prof. Ravi Kant Mittal

**NON-RESIDENT WARDENS**

**BHAWAN**

1. Ashok
2. Bhagirath
3. Budh
4. Day Scholars
5. Gandhi
6. Krishna
7. Malaviya
8. Malaviya (MSA)
9. Meera
  
10. Ram
11. Rana Pratap
12. Sir C.V. Raman
13. Srinivas Ramanujan
14. Vishwakarma
15. Vyas

**NAME**

Dr. Harikrishanan Gopinadhan Nair  
Dr. Murali Palla  
Dr. Niladri Sarkar  
Prof. Ravi Kant Mittal  
Prof. Devendra Kumar  
Dr. Bibhas Ranjan Sarkar  
Dr. Biswanath Layek  
Dr. Praveen Kumar A V  
Prof. Devika  
Prof. Rakhee  
Dr. Sailaja Nandigama  
Dr. M M Pandey  
Dr. Kamlesh Tiwari  
Dr. Rajiv Taliyan  
Dr. Rajdeep Chowdhury  
Dr. Prashant U Manohar  
Dr. Ashish Tiwari

**LIBRARIAN**

Shri Giridhar M. Kunkur

**HEAD, ACCOUNTS & FINANCE**

Shri Satyen Sharma

BITS Pilani

# annual report 2018

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**Part B2: K.K. Birla Goa Campus**

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## BITS PILANI - KK BIRLA GOA CAMPUS

### B2.1 SENIOR OFFICERS

#### New appointments

During the year, the following new administrative appointments were made:

The names and designations of senior officers of Goa Campus are given in 'Annexure B2-1'.

### B2.2 ADMISSIONS

The number of students admitted in each of the semester is given below.

	Integrated First Degree Programmes	Higher Degree Programmes	Doctoral Programmes (PhD)	Total
Second Semester 2017-18	-	-	40 (12)	40 (12)
First Semester 2018-2019	898 (81)	169 (52)	41 (18)	1108 (151)

The programme-wise details are given in Annexure B2-2 (Part B2).

### B2.3 DUAL DEGREES AND TRANSFERS

#### (a) Dual Degree

During the Academic year 2017-2018, 240 students were permitted to work concurrently for two first degrees under the Dual Degree scheme. See Annexure B2-3 (Part B2) for details

#### (b) Transfer

During the Academic year 2017-18, 14 students [(i) Within same tier :11; (ii) Integrated First Degree to Higher Degree : 00, (iii) Higher Degree to Ph.D.: 03] were permitted to transfer.

### B2.4 ACADEMIC CALENDAR

The Academic year of the Institute is divided into two semesters and a summer term.

	Starting Date	Ending date	Number of Instruction days (excluding examination days)
Second Semester 2017-2018	6-Jan-2018	14-May-2018	78
First Semester 2018-2019	1-Aug-2018	14-Dec-2018	84
Summer Term 2017-2018	22-May-2018	14-Jul-2018	47

### B2.5 COURSES OFFERED

The number of courses, offered during the year 2018 is as follows:

	Number of Courses offered
Second Semester 2017-2018	275
First Semester 2018-2019	304
Summer Term 2017-2018	8

During the year, the following new courses were introduced.

S.No	Comp code	Course No	Course Title
1	2264	BIO F217	Lab For Wat, Sani & Soli Waste
2	2018	BIO G661	Gene Toxicology
3	2277	BITS F314	Game Theory & Its Application
4	2265	BITS F315	Introduction To Cognitive Neur
5	2178	CHE F422	Petroleum Refining Technology
6	1583	CHEM F333	Chemistry Of Materials
7	2034	CHEM G521	Environmental Chemistry
8	1380	ECE F211	Electrical Machines
9	1381	ECE F212	Electromagnetic Theo I
10	1383	ECE F214	Electronic Devices
11	1382	ECE F215	Digital Design
12	2184	ECON F345	Behavioral Economics
13	1547	ECON F355	Buss Anal & Valuation
14	1254	EEE F422	Modern Control Systems
15	1257	EEE F435	Digital Image Processing
16	1942	FIN F414	Financial Risk Analy & Manag
17	1131	GS F212	Environ Dev & Climate Ch
18	1171	GS F233	Public Policy
19	2278	HSS F313	Intro To Contempory Arts
20	1588	HSS F314	Maritime Studies & Blue Econ
21	1906	HSS F353	Philosophy Of Aesthetics
22	1882	MATH F420	Mathematical Modeling
23	2190	MATH F423	Intro To Algebraic Topology
24	1481	MATH F431	Distribution Theory
25	1869	ME F485	Num Tech FI Flow & Heat Trans
26	2063	MEL G622	Intro To Artif Neural Net
27	932	MEL G625	Adv Analog & Mix Sig Des

## B2.6 REGISTRATION OF STUDENTS

The registration processes for both the semesters was completed on the first day of each semester.

	Number of students registered
Second Semester 2017-2018	3174
First Semester 2018-2019	3689
Summer Term 2017-2018	595

Details of Registration of students for the Second Semester 2017-2018 are given in **Annexure B2-4**.

## B2.7 ACADEMIC AND PROFESSIONAL COUNSELING

During the year, the Academic Counseling Board (ACB), estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of On-campus students under its purview during the year is given below:

	II Semester 2017-2018	I Semester 2018-2019
Total number of students under the purview of ACB at the beginning of the semester	85	77
No. of students declared out of its purview at the end of the semester	58	44
No. of students who left the Institute during the semester	0	0
No. of new students who came under the purview of ACB at the end of the semester	50	30
Total No. of students under the purview of ACB during the next semester	77	63

Academic Counseling cell organized the counseling of students who were under the purview of ACB. It involved the involvement of faculty members as advisors and an external professional counselor whom the students could consult. The parents of students were also called to interact with the ACB.

## B2.8 AWARD OF DEGREES AND MEDALS

### Award of Degrees

During the year, a total of 625 students graduated. The details on the award of degrees are given below.

	Number of degrees awarded
<b>83th Award (vide Board of Governors meeting)</b>	
83.01 held on 28.3.18	5(3)
83.02 held on 25.6.18	8(3)
83.03 held on 11.7.18	725(90)
83.04 held on 11.7.18	1(1)
83.05 held on 19.7.18	1(0)
83.06 held on 19.7.18	2(1)
<b>84nd Award (vide Board of Governors meeting)</b>	
84.01 held on 28.9.18	4(2)
84.02 held on 3.12.18	2(2)
84.03 held on 4.1.19	1(0)
<b>84nd Award</b>	
84.04	3(0)
84.05	48(7)
84.04 , 84.05 (subject to approval from vide Board of Governors meeting in its next meeting)	
<b>Total:</b>	<b>800(112)</b>

Statistical details of these degrees are given in 'Annexure B2-5, Annexure B2-6'

**Award of Medals For Academic Year 2017-2018**

The list of students who were awarded various medals, for the students graduated at the end of First Semester, Second Semester and Summer Term of the academic year 2017-2018 in the following table:

S.N.	ID.No.	Name	Sex	CGPA Obtained	Position Obtained	Type of Medal to be Awarded
<b>Integrated First Degree Programmes (No. of students: 568)</b>						
1	2014A7TS0403G	AMIT AGARWAL	M	9.91	FIRST	GOLD
2	2014A7PS0001G	QUADROS KAREN ADITI	F	9.77	SECOND	SILVER
3	2014A3TS0170G	ADVAIT PRASAD KOPARKAR	M	9.73	THIRD	BRONZE

**B2.9 CAMPUS INTERVIEWS AND PLACEMENT FOR THE AY 2017-18**

Number of companies which conducted campus interviews	152
No of Students interviewed	3553
No of offers made	549

The statistics (discipline-wise) and the list of organizations which conducted campus interviews during the year is given in Annexure B2-7 (Part B2).

## B2.10 DEPARTMENT-WISE REPORT

In the following pages, a brief summary of the main activities and achievements of different departments of the campus is highlighted.

### B2.10.1 Department: Biological Sciences

Number of faculty members (as on 31 December 2018):18

Senior Professors, Professors	05
Associate Professors	08
Assistant Professors, Gr-I	05
Assistant Professors, Gr-II	00
Visiting Faculty	00

**Head of the Department :** Prof. Srikanth Mutnuri

**Contact details (email):** srikanth@goa.bits-pilani.ac.in

**Number of PhD Scholars: 47**

**Number of Project Fellows: 03**

#### Ph.D. Degree awarded during the year:07

1. Mr. Ajay Ghosh Chalasani (ID NO.2011PHXF015G ) defended his Ph.D thesis titled "Exploration of a narrow-spectrum and strong antimicrobial compound from a wild-type *Bacillus* sp." under the supervision of Dr. Utpal Roy.
2. Ms. Ansie Martin (2012PHXF0009G) defended her Ph.D thesis titled "Study of metal nano-oxide induced stress on *Type 2 Pneumocytes* cultured *in vitro*". under the supervision of Dr. Angshuman Sarkar
3. Mr. Mohammed Monsoor Shaik (ID. No –2011PHXF0404G) defended his Ph.D thesis titled "Studies on Fabrication of Bilayer Scaffolds incorporating Antibacterial and Antioxidant Agents for Wound Healing Applications" under the supervision of Dr. Meenal Kowshik.
4. Ms. Ramya R (ID. No –2011PHXF0005G) defended her Ph.D thesis titled "Purification, Biochemical and Functional Characterization of Bacillomycin-type Lipopeptides of *Bacillus subtilis* RLID 12.1 and Optimization for the Selective Production of the Most Potent Antifungal variant". under the supervision of Dr. Utpal Roy
5. Ms. Bandekar Divya Ramesh (ID. No –2012PHXF0008G) defended her Ph.D thesis titled "Structural and Functional Studies on VC0395\_0300 Protein from *Vibrio cholerae*". under the supervision of Dr. Sumit Biswas
6. Ms. Jigni Pathan (ID. No –2011PHXF0006G) defended her Ph.D thesis titled "Studies On The Effects Of Russell's viper Venom on Human Alveolar Cancer Cells and The Involvement of Small GTPases". under the supervision of Prof. Dibakar Chakrabarty
7. Ms. Akriti Rastogi (ID. No –2009PH290004G) defended her Ph.D thesis titled " Studies on Anticoagulant Potential of Moon Jellyfish (*Aurelia aurita*) and Barrel Jellyfish (*Rhizostoma pulmo*) Tentacle Extracts ". under the supervision of Prof. Dibakar Chakrabarty

#### Ph.D. Thesis Submitted during the year: 07

1. Ankush Ashok Saddhe (2013PHXF0403G) submitted his Ph.D thesis titled "DNA Barcoding of Goan Mangroves and Functional Characterization of Sodium/Proton Antiporters for Salt Tolerance in *Rhizophora* species." under the supervision of Dr. Kundan Kumar.
2. Ms. Deepthi Das (2010PH290008G) submitted her Ph.D thesis titled "Bioprospecting of halophilic archaea from Indian solar salterns." under the supervision of Dr. Judith M. Braganca.
3. Om Prakash Chouhan (2012PHXF0405G) submitted his Ph.D thesis titled "Physicochemical studies on the mutants of the VC0395\_0300 protein." under the supervision of Dr. Sumit Biswas.
4. Ms. Mansi Baveja (2010PH29405G) submitted her Ph.D thesis titled study of Hemotoxic and Cytotoxic Agents from Sea star Coelomic Fluid" under the supervision of Dr. Dibakar Chakrabarty.

5. Rakesh Manuka (2014PHXF0002G) submitted his Ph.D thesis titled "Identification and functional characterization of abiotic stress responsive with No Lysine kinase in rice". under the supervision of Dr. Kundan Kumar
6. Nupur Kumar (2012PHXF0010G) submitted her Ph.D thesis titled "Tissue engineering of mesenchymal stem cells isolated from human placenta into a functional pancreatic construct" under the supervision of Dr Anasuya Ganguly.
7. Gautam Krishnan (2010PHXF0813G) submitted his Ph.D thesis titled ": "Cloning and expression of key antigenic proteins of pathogenic microorganisms: special focus on Mycobacterial family" under the supervision of Dr. Utpal Roy.

#### Sponsored Research activities:18

##### (i) Ongoing projects:

1. Utpal Roy: "Exploration of Antifungal Lead Molecules from the Wild-type *Bacillus subtilis* RLID 12.1– purification and molecular characterization along with optimizing production" DBT, INR 48.69 Lacs, 3 years
2. Kundan Kumar,Co-PI: Utpal Roy, Screening, Isolation and Identification of Novel Antimicrobial Compounds from Potential Mangroves of Goa ,CSIR ,20 lakhs, 3 years.
3. Malabika Biswas , Studies on the gene regulation involved in the lytic-lysogenic switch in *Staphylococcus aureus* temperate bacteriophage Phi11 , DST-SERB, 21 Lakhs. 3years.
4. Malabika Biswas as Co-PI; Development of PCDA-liposome based detection kit for Alzheimer's disease biomarker"; b.DST-SERB;c.3yrs(2017-2020);d.Rs.26,63,200. Srikanth Mutnuri "Developing Bioactive Compound-Enriched Functional Food Ingredients from *Dillenia indica* and valorization of its pomace", DBT under North East Twinning Program in collaboration with Assam Agricultural University, 3 years
5. Srikanth Mutnuri "Pilot study, testing the use and production of Terra Preta and other soil improving products like Struvite / PROM", German Technical Cooperation (GIZ), 1.4 years
6. Srikanth Mutnuri "Onsite electrochemical wastewater treatment and recycling technology", Bill & Melinda Gates foundation project in collaboration with Caltech, USA, 1 years
7. Srikanth Mutnuri "Analytics Sensor Test-Kit for Advanced Process Control", Bill & Melinda Gates foundation project in collaboration with Cranfield University, UK, 1.5 years
8. Srikanth Mutnuri "Demonstration of River Sal cleaning by Vertical wetlands and river bed filtration", DBT, 2017-2019
9. Srikanth Mutnuri "Demonstration of a waste to energy by anaerobic digestion of food waste and septage", DBT, 2017-2019
10. Srikanth Mutnuri "Hybrid Electrochemical-MFC Waste Processing: Functional blocks for low energy disinfection and denitrification of human waste streams", Bill & Melinda Gates foundation project sub contracted by RTI international, 2017-2018
11. Kundan Kumar,Study on the role of TIP family members in arsenite accumulation and their transport in rice. BRNS, 29.40 lakhs, 3 years
12. Prof. Meenal Kowshik "Lanthanide doped hydroxyapatite based nano-materials for theranostics applications: Sensing, imaging and therapeutics", DST SERB, Rs.39,64,771/-, 03 years
13. Home Automation and Smart Wheelchair based on EEG signals produced in the Brain
14. Funding Agency Cognitive Science Research Initiative – Department of Science and Technology [DST – CSRI]
15. PI: Veeky Baths, Studies on the effect of Max Planck literacy and cognition project, Max Planck institute for psycholinguistics, Nijmijen, Netherlands, 4.3 lakhs
16. Cloning and characterization of one spot blotch disease resistance gene(s) in wheat.CIMMYT (15 Lakhs) as PI (Rajesh Mehrotra)
17. Co Principal investigator in Introducing cyanobacterial bicarbonate transport into C3 Plants for enhanced photosynthetic performance. Funded by Department of Science and Technology (37.8 lakhs) (Rajesh Mehrotra)
18. Principal Investigator in,"Introducing cyanobacterial bicarbonate transporters into C3 plants for enhanced photosynthetic performance" SERB Core Research Grant; Rs. 37.73 lakhs. 3 years (2017-2020)" (Sandhya Mehrotra)

**(ii) Projects sanctioned during the year: 10**

1. PI: Dibakar Chakrabarty Studies on the effect of Russell's Viper Venom on regulation of cell morphology, apoptosis and further characterization of the active compound(s), ICMR, 28 lakhs.
2. PI: Srikanth Mutnuri Studies on the effect of Bioremediation of red mud using acidogenic fermentation byproducts and by biopiling, ABSTCPL & BITS, 71.5 lakhs.
3. PI: Rajesh Mehrotra Studies on the effect of Cloning of Spot Blotch disease resistance gene in wheat, CIMMYT, Mexico, 15 lakhs
4. PI: Srikanth Mutnuri Studies on the effect of Vitamin D increase in Mushrooms by exposing to UV light, Tropical Mushrooms & Zuari Foods, 3.06 lakhs
5. PI: Srikanth Mutnuri Studies on the effect of Academia Engagement on Decentralized Sanitation under Sanitation Capacity Building Platform, National Institute of Urban Affairs, 12.8 lakhs
6. PI: Jiss Maria Louis, Mentor : Indrani Talukdar, Studies on the effect of TNF Alpha Mediated Alternative Splicing in Type 2 Diabetes; A genome Wide Approach, DST-WOS A, 20 lakhs.
7. PI: Arnab Banerjee, Studies on the effect of Exploring the effects of polyamine and associated metabolic regulation of hypothalamic GnRH-GnIH synthesis and release during ageing in BALB/cJ mice, SERB, 38 lakhs
8. PI: Utpal Roy, Studies on the effect of Evaluation of antifungal activity of Lipopeptides from a wild type Bacillus sp. Mouse Models of invasive Candidiasis, Cryptococcosis and Aspergillosis, SERB, 72.51 lakhs (Approved)
9. PI: Manjuri Kumar Co PI: Sumit Biswas, Studies on the effect of Synthesis of mononuclear as well as homo and hetero dinuclear complexes of Cu(II) and Zn(II) with hard-soft donor ligands and evaluation of their anticancer activities", DST-SERB, 2018, 28 lakhs
10. FIST (Department of Biology) Funding Agency : DST, 161 lakhs.

**Projects completed this year: Nil****Publications in 2018: 37**

1. Dharm S Jain, Raviprasad Aduri, Sanket R Gupte, Title : A Data Driven Model for Predicting RNA-Protein Interactions based on Gradient Boosting Machine, Journal: Nature Scientific Reports Vol: 8, Pg No: 9552 Impact Factor 4.609 (5 year IF)
2. Mansi Baveja, Dibakar Chakrabarty, Title: Hemotoxic and Wound Healing Potential of Coelomic Fluid of Sea-star Astropecten indicus, Journal: Journal of Basic and Applied Zoology, Springer Vol: 79, Pg No: 27
3. Anant Yadav, Srikanth Mutnuri, Florent Chazarenc, Title: Development of the "French system" Vertical flow Constructed Wetland to treat raw domestic wastewater in India, Journal: Ecological Engineering, Vol:113, Pg No: 88-93 Impact Factor 3.023.
4. Ram Chavan, Srikanth Mutnuri Title: Tertiary Treatment of Domestic Wastewater by Spirulina platensis Integrated to Microalgal Biorefinery. Journal: Biofuels, Pg No: 1-12
5. Guruprasad Talekar, Srikanth Mutnuri, Korneel Rabaey, Peter Clauwaert, Priya Sharma and Anant Yadav, Title: Sanitation of blackwater via sequential wetland and electrochemical treatment. Journal: Nature Partnering Journal - Clean Water
6. Starlaine Mascarenhas, Anasuya Ganguly, Srikanth Mutnuri Title: Silica - A Trace Geogenic Element with Emerging Nephrotoxic Potential, Journal: Science of the Total Environment Vol: 645, Pg No: 297-317 Impact Factor 4.9
7. Starlaine Mascarenhas, Anasuya Ganguly, Amrita Chatterjee, Narendra Nath Ghosh, Ram U. Gawas, Barun Kumar Ghosh, Mainak Banerjee Title: Water-Dispersible Rhodamine B Hydrazide Loaded TiO<sub>2</sub> Nanoparticles for "Turn On" Fluorimetric Detection and Imaging of Orthosilicic Acid Accumulation In-Vitro in Nephrotoxic Kidney Cells. Journal: Journal of Nanoscience and Nanotechnology. Vol: 18, Pg No: 1-13 Impact Factor 1.35
8. Nupur Kumar, Anasuya Ganguly, Heer Joisher Title: Polymeric Scaffolds for Pancreatic Tissue Engineering – A Review, Journal: The Review of Diabetic Studies. Vol: 14, Pg No: 334-353 Impact Factor 3.5 Issued No: 4
9. Paul M Jones, William Leone, Quentin Lonne, Pedro Talaia, Glenn J. T. Leighton, Gerardine G. Botte, Srikanth Mutnuri, Title: A Straightforward Route to Sensor Selection for IoT Systems, Journal: Research-Technology Management Vol: 61, Pg No: 41-50 Impact Factor 1.796 Issued No: 5

10. Priya Sharma, Srikanth Mutnuri, Devendra Kumar Title: UPLC-MS/MS method validation of Ciprofloxacin in human urine: Application to biodegradability study in Microbial Fuel Cell. Journal: Biomedical chromatography, Impact Factor 1.723
11. Shaik, M. Monsoor, Meenal Kowshik, Title: Ellagic acid containing collagen-chitosan scaffolds as potential antioxidative bio-materials for tissue engineering applications. Journal: International Journal of Polymeric Materials and Polymeric Biomaterials. Pg No: 1-8 Impact Factor 2.127 Issued No: <https://doi.org/10.1080/00914037.2018.1443927>
12. Gauri Achari, Meenal Kowshik, Title: Recent Developments on Nanotechnology in Agriculture: Plant Mineral Nutrition, Health, and Interactions with Soil Microflora, Journal: Journal of Agricultural and food chemistry, Vol: 66, Pg No: 8647-8661 Impact Factor 3.154 Issued No: 33
13. Rakesh Manuka, Kundan Kumar, Ankush Saddhe. Title: Expression of OsWNK9 in Arabidopsis conferred tolerance to salt and drought stress. Journal: Plant Science, Vol: 270, Pg No: 58-71 Impact Factor 3.8
14. Ankush Saddhe, Kundan Kumar, Manali Malvankar Title: Selection of reference genes for quantitative real-time PCR analysis in halophytic plant *Rhizophora apiculata*. Journal: PeerJ Vol: 6, Pg No: e5226 Impact Factor 2.1
15. Subhadeep Banerjee, Apeksha Ashok Phadte, Anjan Chattopadhyay, Joseph RD Fernandes, Akanksha Vinod Savardekar, Arnab Banerjee. Title: Synthesis and photophysical characterization of heterocyclic dihydrotetracenes and their utility in the fluorescence imaging of HeLa cells, Journal: Tetrahedron Letters, Impact Factor 2.2
16. Merina Dhara, Veeky Baths, P. Danumjaya, Title: Mathematical modeling and dynamics of tuberculosis infection among diabetic patients in India. Journal: The Journal of Analysis (2018), Pg No: 1-13
17. Avijit Das, Malabika Biswas, Title: Cloning, overexpression and purification of a novel two-domain protein of *Staphylococcus aureus* phage Phi11, Journal: Protein expression and purification. Vol: 154, Pg No: 104 – 111 Impact Factor <https://doi.org/10.1016/j.pep.2018.10.005>
18. Viraj G. Naik, Sharanabasava D. Hiremath, Avijit Das b, Dishant Banwari a, Ram U. Gawas a, Malabika Biswas b, Mainak Banerjee \*a and Amrita Chatterjee \*a, Title: Sulfonate-functionalized tetraphenylethylenes for selective detection and wash-free imaging of Gram-positive bacteria (*Staphylococcus aureus*). Journal: Materials Chemistry Frontiers, Issed No: 10.1039/C8QM00417J
19. Zigmee T Bhutia, Avijit Das, Malabika Biswas, Amrita Chatterjee, Mainak Banerjee, Title: 7-Oxa-4-thia-1-aza-bicyclo [3.2. 1] octane 4, 4-Dioxides: Mechanochemical Synthesis by Tandem Michael Addition–1, 3-Dipolar Cycloaddition of Aldoximes and Evaluation of  
Journal: European Journal of Organic Chemistry, Vol: 2018, Pg No: 506-514
20. Avijit Das, Sumit Biswas, Malabika Biswas, Title: Expression of Phi11 Gp07 Causes Filamentation in *Escherichia coli*, Journal: The open microbiology journal, Vol: 12, Pg No: 107
21. Nayan Mate, Arnab Banerjee, Title: Rodent Models for Polycystic Ovary Syndrome, Journal: ISSRF News Letter, Pg No: 25-27, Issued No: 21.
22. Subhadeep Banerjee, Apeksha, Ashok Phadtea, Anjan Chattopadhyaya, Joseph R.D. Fernandes Akanksha Vinod Savardekara, Arnab Banerjee, Keisham Sarjit Singh, Title: Synthesis and photophysical characterization of heterocyclic dihydrotetracenes and their utility in the fluorescence imaging of HeLa cells. Journal: 2018. Tetrahedron Letters. Impact Factor: 2.38
23. Sidhali U, Parsekar, Joseph Fernandes, Arnab Banerjee, Om Prakash Chouhan, Sumit Biswas, Manjuri K. Koley, Title: DNA binding, cleavage and cytotoxicity studies of three mononuclear Cu(II) chloro-complexes containing N–S donor Schiff base ligands.
24. A Martin, A. Sarkar Title: Epithelial to Mesenchymal transition, eIF2alpha phosphorylation and Hsp70 expression enable greater tolerance in A549 cells to TiO2 over ZnO nanoparticles, 2018, Journal: Scientific Reports, Nature Publication (2018)
25. Mansi Baveja, A. Sarkar, Dibakar Chakrabarty, Title: Hemotoxic and wound healing potential of coelomic fluid of sea-star *Astropecten indicus*, Journal: The Journal of Basic and Applied Zoology 2018. Pg No: 79:27 Issued No: <https://doi.org/10.1186/s41936-018-0038-2>.
26. Joshi RS, Mukherjee DD, Mukherjee DD, Chakrabarty S, Martin A, Jadhao M, Chakrabarti G, Sarkar A, Ghosh SK, Title: Unveiling the Potential of Unfused Bichromophoric Naphthalimide to Induce Cytotoxicity by Binding to Tubulin: Breaks Monotony of Naphthalimides as Conventional Intercalators, Journal: J Phys Chem B. 2018 Mar 21, Issued No: doi: 10.1021/acs.jpcc.7b10429.
27. Ansie Martin, Angshuman Sarkar, Title: Overview on biological implications of metal oxide nanoparticle exposure to human alveolar A549 cell line. Journal: Nanotoxicology, Pg No: 11(6):713-724



28. Om Prakash Chouhan, Sumit Biswas, Title: Subtle changes due to mutations in the GGDEF domain result in loss of biofilm forming activity in the VC0395\_0300 protein from *Vibrio cholerae*, but no major change in the overall structure, Journal: *Protein Pept Lett.* 2018 Jun 28
29. Das, Kirti Ranjan, Meenal Kowshik, MK Praveen Kumar, Savita Kerkar, S. K. Shyama, and Samir Mishra. Title: Native hypersaline sulphate reducing bacteria contributes to iron nanoparticle formation in saltpan sediment: A concern for aquaculture.", Journal: *Journal of environmental management* 206 (2018), Pg. No: 556- 564
30. Purva Bhalothia, Sneha Lata, Zaiba Hasan Khan, Brijesh Kumar, Sandhya Mehrotra, Rajesh Mehrotra, Title: enome Wide Analysis of Protein Phosphatase 2C (PP2C) Genes in Glycine max and Sorghum bicolor, Journal: *Current Biotechnology*, Pg.No : 7, Issued No: DOI : 10.2174/2211550107666171219163648
31. Rajesh Mehrotra, Gary Loake, Sandhya Mehrotra, Title: Promoter choice: Selection vs. rejection, Pg.No: 38-41, Issued No: 13(2018) <https://doi.org/10.1016/j.genrep.2018.08.008>
32. Saddhe, A. A. Shweta, Mosa, K. A. Kumar, K. Prasad , M. and Dhankher , O. P. (2018) Genome-wide characterization of Major Intrinsic Protein (MIP) gene family in *Brachypodium distachyon*. *Current Bioinformatics*(doi: 10.2174/1574893612666171023152558).
33. Saddhe, A. A. and Kumar, K. (2018) DNA barcoding of plants: Selection of core markers for taxonomic groups. *Plant Science Today* 5:9-13.
34. Bhakti B. Salgaonkar, Kabilan Mani, & Judith M. Bragança (2018). Sustainable Bioconversion of Cassava Waste to Poly (3-hydroxybutyrate-co-3-hydroxyvalerate) by *Halogeometricum borinquense* Strain E3. *Journal of Polymers and the Environment*, 1-10. Impact Factor 1.971
35. Bhakti B. Salgaonkar, Divya T. Sawant, Saranya Harinarayanan, & Judith M. Bragança (2018) Alpha-amylase Production by Extremely Halophilic Archaeon *Halococcus* Strain GUVSC8. *Starch-Stärke*, 1800018. Impact Factor 2.173
36. Gautam Krishnan and UTPAL ROY (2018): A New Functional Model for prediction of Chaperone Activity of the Recombinant *M. tb* Acr ( $\alpha$ -crystallin) using Insulin as Substrate. *Canadian Journal of Infectious Diseases and Medical Microbiology*. (In Press) *Scopus-indexed* and *SCI-indexed*
37. Gautam Krishnan and UTPAL ROY (2018): Role of Molecular interactions and oligomerisation in Chaperone Activity of Recombinant *Mycobacterium tuberculosis* Acr. *Iranian Journal of Biotechnology* (In Press). *Scopus-indexed* and *SCI-indexed*

#### Conferences attended/papers presented : 11

1. South Asian Biotechnology Conference 2018, Biotechnology: Role in Regional Development at Colombo, Sri Lanka organized by South Asian University and International Centre for Genetic Engineering and Biotechnology (ICGEB) from 28-30 March 2108. Title of Presentation: Development of DNA barcodes for delineating representative mangrove species of west coast India.
2. Plant Responses to light and stress: emerging issues in climate change. Organized by International Centre for Genetic Engineering and Biotechnology (ICGEB) from 10-12 October 2018. Title of presentation: The role of OsWNK9 in conferring increased tolerance to salt and drought stress
3. IACPCon 2018 – Indian Association for Cerebral Palsy Conference 2018, Nov 24-25, 2018, Calcutta Medical College and Hospital, Kolkata.
4. Ramya R, A. Ghosh, A. Chakrabarty, Utpal Roy" 'New Antifungal Lipopeptides from Wild- type *Bacillus subtilis*', 20th Congress Internal Society of Human & Animal Mycology, (ISHAM) 2018) at Amsterdam, July 2018.
5. Rajesh Mehrotra presented a paper Genome wide analysis of AAAG and ACGT cis- elements reveals preferred orientation of AAAG(N)ACGT over ACGT(N)AAAG in *Arabidopsis thaliana* International Plant Physiology Conference, Lucknow, 2nd to 5th December, 2018.
6. Achari, G. A. and Kowshik, M "Sustained release zinc-chitosan nanoparticles boosts seedling vigor in *Capsicum annum* L." presented at the 2<sup>nd</sup> National Postdoc Symposium, held during 3<sup>rd</sup> to 5<sup>th</sup> October, 2018 at CSIR-Centre of Cellular and Molecular Biology, Hyderabad, Telangana, India organized by CCMB, Hyderabad and, NCBS and InStem, Bangalore (Poster).
7. Achari, G. A. and Kowshik M "Zinc-chitosan nanoconjugates as nanofertilizers for improving plant nutrition" presented at the International Conference on Nanoscience and Technology (ICONSAT-2018), held during March 21st-23rd 2018 at Indian Institute of Science, Bengaluru, India, Sponsored by Nano Mission, Department of Science and Technology, Govt. of India (Poster No. 162).

8. Workshop for Woman in Science Administration and Management organized by the British Council, IISER Pune and IndiaBioscience through the Newton-Bhabha Fundat National Centre for Biological Sciences, Bengaluru, Karnataka, India during November 26<sup>th</sup>- 29<sup>th</sup> 2018.
9. Workshop on Engineering Economics Entrepreneurship in collaboration with Fulbright Educational Exchange Program at BITS Pilani K K Birla Goa Campus, Goa, India, during May 28<sup>th</sup> 2018 to Friday, July 6<sup>th</sup> 2018. Mentor: Fulbright Specialist (FS) Prof. Ashok Kumar Ghosh (Ph.D., P.E) from the New Mexico Tech, USA and Prof. Anasuya Ganguly, BITS Pilani KK Birla Goa Campus. Business proposal on 'Production of Biofertilizers' was presented.
10. Bio-Entrepreneurship, Grant Writing and Funding Opportunities, workshop organized by BITS BIRAC BioNEST at BITS Pilani KK Birla Goa Campus on February 5<sup>th</sup> 2018.

#### Refresher course

11. Science Academies' Refresher course on 'Nanotechnology and its applications' at KS Rangasamy College of Technology, Tiruchengode, Tamil Nadu, 16<sup>th</sup> to 28<sup>th</sup> April 2018. Sponsored by the Indian Academy of Sciences, Bengaluru; Indian National Science Academy, New Delhi and the National Academy of Sciences, Allahabad under the Science Academies Education Programme.

#### D. Books Published/Edited during the year: 04

1. Kumar, K. and Saddhe, A.A. (2018). Targeting Aquaporins for Conferring Salinity Tolerance in Crops . In Vinay Kumar, S. H. Wani, P .Suprasanna, L .P. Tran edit: Salinity Responses and Tolerance in Plants, Volume 1: Targeting Sensory, Transport and Signaling Mechanisms. Springer. Chapter 3.
2. Reviewed papers for Journals such as Plant Physiology and Biochemistry, Comprehensive Reviews in Food Science and Food Safety, Journal of Wood Science, Scientific Reports, Plant Methods and International Journal of Phytoremediation.
3. Rajesh Mehrotra acted as a reviewer for Plant journal, Plant molecular biology, Plos One.
4. Pallavee Srivastava, Pallavee Srivastava, Title: Mechanisms of bacterial heavy metal resistance and homeostasis: an overview, In Heavy Metals in the Environment: Microorganisms and Bioremediation, Journal: Ed: Edgardo Donati, CRC Press, Taylor and Francis Group

#### E. Conferences, Seminars & Workshops conducted: 06

1. Angshuman Sarkar , The 'XLII All India Cell Biology Conference and the 2nd TCMB' Department of Biological Sciences, BITS Pilani K K Birla Goa Campus from 21<sup>st</sup> – 23<sup>rd</sup> December 2018.
2. Srikanth Mutnuri , The 4th Asia Pacific - International Society of Microbial Electrochemistry and Technology (AP-ISMET) Department of Biological Sciences, BITS Pilani K K Birla Goa Campus from 13<sup>th</sup> – 16<sup>th</sup> November 2018.
3. Srikanth Mutnuri , One day International Conference on Urban Rural Nutrient and Carbon Cycle – towards Soil protection and rehabilitation on 26<sup>th</sup> November 2018 at ) Department of Biological Sciences, BITS Pilani K K Birla Goa Campus.
4. Veeky Baths , " International Symposium on Bilingualism and cognition 2018, Department of Biological Sciences, BITS Pilani K K Birla Goa Campus, from 1<sup>st</sup> to 3<sup>rd</sup> November 2018
5. Veeky Baths , workshop on Data sharing for open innovation in community-based rehabilitation , organized by Cognitive Neuroscience Lab, Dept. of Biological Sciences along with University of Leeds on 28<sup>th</sup> - 29<sup>th</sup> of Sept, 2018.
6. Vijayshree Nayak "International symposium Academic-Industry-Government partnerships to accelerate Radiation Research and clinical Translation" (AIG 2018) , on 8-9 October 2018. Venue : Goa University.

#### F. Invited Talks given by BITS faculty: 08

1. Western regional seminar on frontiers and innovations in plant sciences, organized by Department of Botany at ParvatibaiChowgule College of Arts and Science, Goa. 16-17<sup>th</sup> March 2018. Title of presentation: Understanding the role of rice WNKs in abiotic stress tolerance (Dr. Kundan Kumar)
2. An invited talk in Molecular Biology Division (MBD), Bhabha Atomic Research Centre ( BARC, <http://www.barc.gov.in/>), Mumbai, on 12 December, 2018.(Dr. Sukanta Mondal)
3. UK Sensory Motor Conference 2018, June 21-23, 2018, University of Leeds, Using EEG to decipher Consumer Choice. 9 (Dr. Veeky Baths)
4. International Conference on Discrete mathematics and its application in Network Sciences [ ICDMANS – 2018 ] , July 7-10, 2018, BITS Pilani, K K Birla Goa Campus, Using EEG and Graph Theory to decipher Consumer Choice, (Dr. Veeky Baths)
5. Talk on Innovation in Indian Railway, at Konkan Railway Madgaon, (Dr. Veeky Baths)

6. Rajesh Mehrotra delivered a Plenary talk entitled Genomic analysis of cis element and its validation using model plant *A thaliana* in B NBadodkar college, Thane 12-13 January 2018
7. Rajesh Mehrotra delivered an invited talk entitled Analysis of ACGT cis elements across plant genomes and its characterization using protein phosphatase 2C like promoter from *Arabidopsis thaliana* in LSRIEAS 2018 in BITS, Pilani Nov 1-3, 2018
8. Vijayashree Nayak Faculty immersion program Visited University of Texas, MD Anderson Cancer Center Duration May 17th to July 30th

#### **G. Invited talks arranged in the department: 08**

1. Prof. Corinne Dejours from Univ. Bordeaux, France delivered a guest lecture on "Smart Microsystems for Chemical and Biological Transduction using Love Acoustic Waves and Nanotechnologies", 23rd October 2018.
2. Raja Bhattacharyya, PhD Department of Neurosciences, Harvard Medical School and Massachusetts General Hospital, Boston delivered a guest lecture on "Trafficking and processing of Amyloid Precursor protein (APP) in Alzheimer's disease", 12th October.
3. Prof. Mukesh Doble, Professor (Emeritus), Department of Biotechnology, Bhupat & Jyoti Mehta School of Biosciences, IIT Madras, delivered a guest lecture on "Polymers in Medical Applications", 19th September 2018
4. Prof. Gerardine G. Botte, PhD, Distinguished Professor, Russ Professor - Chemical and Biomolecular Engineering, Director - Center for Electrochemical Engineering Research (CEER), Director - Consortium for Electrochemical Processes and Technology (CEProTECH), Ohio University, USA, delivered a guest lecture on "Electrochemical Conversion of Ammonia: from Wastewater Treatment to Ammonia Synthesis", 31st August 2018.
5. Dr. Somnath Shinde, M. Tech., Ph.D., PGDCTM, Postdoctoral Research Associate, Department of Chemical & Biomolecular Engineering, University of Tennessee, Knoxville, TN 37996, USA, BioSciences Division, Oak Ridge National Laboratory, Oak Ridge, USA delivered a guest lecture on "Insight into an alkaline deconstruction of genetically modified *Populus* by AFEX and EA pretreatment processes", 26th March 2018
6. Dr. Jolly Basak, Department of Biotechnology, Visva-Bharati, Shantiniketan. delivered a guest lecture on "Phaseolus vulgaris microRNAs are significant regulators of mungbean yellow mosaic India virus infection", 13th October 2018
7. Prof. Ranjit P. Bahadur, Department of Biotechnology, IIT, Kharagpur. delivered a guest lecture on "Dissecting macromolecular recognition sites in ribosome: implication to its self-assembly", 15th October 2018.
8. Dr. Ashok Kundapur delivered a guest lecture on Solar Cookers, Environment and Energy Pro Activist, Acclaimed Expert on Solar Cookers, 03rd December, 2018

#### **H. Awards and recognitions won by faculty and students: 21**

1. Prof. Kundan Kumar Joined Editorial Board Member of Journal PLOS ONE.
2. Rehan Ahmed Deshmukh awarded the ICMR-Senior Research Fellowship under the supervision of Prof. Uptal Roy.
3. Jiss Maria Louis awarded Women Scientist under WOSA scheme by DST under the supervision of Prof. Indrani Talukdar.
4. ZANTYE PRANJITA GANESH awarded the DST- CEFIPRA Fellowship For ESONN Programme 2018, for undergoing training in the field of Nano-sciences and Nanotechnology to be held at Grenoble, France (Aug-Sept 2018) under the supervision of Prof. Meenal Kowshik.
5. Dr. Bhakti Salgaonkar (CSIR RA), student from Prof. Judith Bragança's group, received BIRAC (Biotechnology Industry Research Assistance Council) SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) Appreciation Award for her work entitled "Polyhydroxyalkanoates Production by Microorganisms from Sustainable Resources" carried during the Biotech Innovation Ignition School-3 (BIIS-3) on "Opportunity for Women biotechnology students to work on grassroots innovations and microbial diversity" at Ahmadabad, Gujarat, India from April 30 to May 29, 2018.
6. Dr. Bhakti Salgaonkar (CSIR RA), student from Prof. Judith Bragança's group, received First best Oral Presentation Award for the paper entitled "Polyhydroxyalkanoates Production by Extremely Halophilic Archaea from Sustainable Resources" at International Conference on "Microbial Technology for Better Tomorrow (ICMTBT-2018)", Organized by Dr. D. Y. Patil Arts, College, Pune, Maharashtra, India in association with Microbiologist Society, India, from 17-19<sup>th</sup> February, 2018.

7. Chitra Nair awarded the ICMR-Senior Research Fellowship under the supervision of Prof. Dibakar Chakrabarty.
8. Starlaine Mascarenhas awarded the ICMR-Senior Research Fellowship under the supervision of Prof. Anasuya Ganguly.
9. Joseph Fernandes awarded the ICMR-Senior Research Fellowship under the supervision of Dr. Arnab Banerjee.
10. Avjit Das awarded the CSIR-Senior Research Fellowship under the supervision of Dr. Malabika Biswas
11. Priya Sharma awarded the Summer School on Resource Recovery and Reuse by International Water Management Institute for undergoing training in the International Water Management Institute to be held at Colombo, Srilanka (July 22 – 28, 2018) under the supervision of Prof. Srikanth Mutnuri.
12. Anumeha Vats awarded the Summer School on Resource Recovery and Reuse by International Water Management Institute for undergoing training in the International Water Management Institute to be held at Colombo, Srilanka (July 22 – 28, 2018) under the supervision of Prof. Srikanth Mutnuri.
13. PRAJAKTA PATIL awarded the Bill & Melinda Gates Foundation for undergoing training of Teachers programme in Sanitation at IHE Delft Institute for Water Education to be held at Delft, Netherlands (28th May -30th November 2018) under the supervision of - Prof. Srikanth Mutnuri
14. Mansi Baveja who has won the 1st Prize in oral presentation at the NATIONAL CONFERENCE ON BIOACTIVE MARINE NATURAL PRODUCTS AND THEIR THERAPEUTIC APPLICATION at The Satyabhama Institute of Science and Technology, Chennai, from 24-25th January 2018 under the supervision of Prof. Dibakar Chakrabarty.
15. Mansi Baveja who has won the 1st prize in poster presentation in life science category at the National Biomedical Research Competition 2018 held at AIIMS Rishikesh on 15th October 2018, under the supervision of Prof. Dibakar Chakrabarty.
16. Mansi Baveja who has won the 4th prize in poster presentation in Innovative Ideas and Patents Category at the National Biomedical Research Competition 2018 held at AIIMS Rishikesh on 15th October 2018, under the supervision of Prof. Dibakar Chakrabarty
17. Jiss Maria Louis for Prof. N.J. Chinoy best (second position) poster presentation award under the supervision of of Dr. Indrani Talukdar
18. Joseph Fernandes for Prof. N.J. Chinoy best (second position) oral presentation award under the supervision of Dr. Arnab Banerjee.
19. Pinky (2015PHXF0427G), a Research Scholar at the Biological Department working under the supervision of Prof. Rajesh Mehrotra has been selected for the EMBO short-term fellowship. She will be visiting Prof. Tony Miller's lab., at John Innes Centre, Norwich starting January 2019 to March 2019 for her research work.
20. Mansi Baveja published Newspaper articles in Times of India And Machine Times about bioactive potential of starfish in India under the supervision of Prof. Dibakar Chakrabarty.
21. Nupur Kumar, 6th prize in poster presentation in Medical Sciences category at National Biomedical Research Competition 2018 held at AIIMS Rishikesh on 15th oct 2018

#### **Post Doctoral Researchers of the Department : 03**

1. Dr. Gauri A. Achari joined Science and Engineering Research Board (SERB) National as Postdoctoral Research Fellowship on 04.05.2017 under Prof. Meenal Kowshik. Title of Project: Novel sustained release biodegradable polymer coated urea and zinc nanofertilizers for synchronizing fertilizer uptake, improving productivity and prevention of bacterial wilt disease in chilli (*Capsicum annum L.*)
2. Dr. Bhakti B. Salgaonkar joined as CSIR Research Associate (CSIR-RA) on 4<sup>th</sup> May, 2017 under Prof. Judith Bragança's lab on project entitle: 'Application of Polyhydroxyalkanoates obtained from Halophilic Archaea as potential Biomaterial in Tissue Engineering'.
3. Dr. Lalita Vithal Baragi joined Science and Engineering Research Board (SERB) National as Postdoctoral Research Fellowship on 02.04.2018 under Prof. Srikanth Mutnuri. Title of Project: Response of Copepods to crude oil pollution and warming.

#### **I. Faculty Development, International Collaboration & Industry Immersion: Nil**

#### **J. Significant new equipments/experimental facility added during the year:**

1. New course started: Introduction to Cognitive Neuroscience Course Code: BITS F315

#### **K. Departmental association/club activities: Nil**

**B2.10.2 Department: Chemistry**

Number of faculty members (as on 31 December 2018): 16+1 (DST-INSPIRE Faculty)

<b>Senior Professors, Professors</b>	04
<b>Associate Professors</b>	07
<b>Assistant Professors, Gr-I</b>	05
<b>Assistant Professors, Gr-II</b>	00
<b>Visiting Faculty</b>	00
<b>DST INSPIRE Faculty</b>	01

**Head of the Department:** Prof. Anjan Chattopadhyay, Associate Professor**Contact details (email):** anjan@goa.bits-pilani.ac.in**Number of PhD Scholars** -Fulltime: 23 + Part Time: 2 + Aspirant: 1**Ph.D. Thesis awarded during the year:** 07**Ph.D. Thesis Submitted during the year:** 02**A. Sponsored Research activities:****(i) Ongoing projects:**

<b>Name of Investigator</b>	<b>Title of Project and duration</b>	<b>Amount sanctioned (Rs)</b>	<b>Funding Agency</b>
Prof. Narendra Nath Ghosh (PI)	Development of Photocatalyst embedded Graphene based membranes for Treatment of Dye containing waste water under sunlight. (2018- 2021)	53 L	The Aditya Birla Science and Technology Company Private Limited and BITS Pilani
Prof. Narendra Nath Ghosh (PI)	Development of Mesoporous Silica (or Alumina)- SiC-metal nanoparticle-based nanocomposites for Radar Absorption Application at High Temperature (2018-2019)	15.13 L	DRDO
Prof. Amrita Chatterjee (PI) Prof. Narendra Nath Ghosh (Co-PI)	Design and synthesis of graphene oxide based AIE-sensor for selective detection of Hg(II) and organic mercury in aqueous medium." CSR-KN/CRS-91/2016-17/1132; 3 years	7 L	DAE-UGC consortium, India
Prof. Amrita Chatterjee (PI)	Development of PCDA-liposome based detection kit for Alzheimer's disease biomarker (EMR/2016/001416); 3 years	26.6 L	SERB
Prof. Bhavana P(PI)	Steric and Conformational Influences on the Performance of Nonplanar and Highly Functionalized Phenyl- And Heteroaryl- Porphyrins in the Sensing of Anions and Heavy Metal Ions(EMR/2016/002367)	28.2L	SERB
Dr. Subhasish Roy (PI)	Cyclic Peptide-based Nanotubes for Efficient Proton Conducting Material (2017-2022)	35 L	DST India
Prof. R N Behera (PI)	Computational Study of the Catalytic Mechanism of some Diaryldiselenide-based Glutathione Peroxidase Mimetics, 2017 - 2020	16.4L	SERB

Name of Investigator	Title of Project and duration	Amount sanctioned (Rs)	Funding Agency
Dr. Jayadevan K (PI) & Prof. R. N. Behera (Co-PI)	Experimental and Computational Study of Boron Doped TiO <sub>2</sub> and ZnO Nanocrystals, 2017-2020	23.3L	SERB
Prof. Mainak Banerjee	A comprehensive study on mechanochemical sp <sup>2</sup> C-H bond activation in five-membered heteroaromatics in a Ball-Mill: Can first row transition elements be a potential replacement of late transitional elements—a question to investigate. 3 YEARS	30.6 L	SERB
Prof. Mainak Banerjee	Design and synthesis of smart supramolecular dyes based on TPE modified PDI–cucurbituril conjugates: their binding and photophysical studies and application in the detection of biogenic polyamines. 3 YEARS	28 L	BRNS
Dr. Nabarun Bhattacharyya (CDAC Kolkata) Prof Sunil Bhand, CCPI (BITS Pilani Goa Campus) Prof Rajib Bandyopadhyay (Jadavpur University Kolkata)	Multi-institute Consortium Project entitled “Development of sensing system for residual pesticide and harmful chemical detection in fruits and vegetables” funded by R.D. Tata Trust, Aug. 2016- feb 2019.	Total Rs. 212 L BITS share 53 L	RD Tata Trust Mumbai
Prof. Lalit Bharadwaj (AINT Delhi) Prof Sunil Bhand CCPI (BITS Goa) Dr Irani Mukherji (IARI, ICAR N Delhi)	Multi-institute Consortium Project entitled “Nano-based detection of organophosphate pesticides using metal-organic framework conjugates” funded by National Agricultural Science Fund, ICAR Govt. of India. (Jan. 2017- Dec .2019)	Rs. 177 L , BITS goa share Rs 43.20 L	National Agri. Science Fund, ICAR
Prof. Sunil Bhand BITS Goa Campus. Principal Collaborator: Dr R. Balasubramaniam, (BARC, Mumbai).	Development of field portable device for the analysis of contaminant in water” funded by BRNS, DAE Govt of India No. Ref No: (36)/14/25/2014-BRNS-445 Funding & duration: Rs. 24.138 lakh : 3 years (2015-Dec 2018) Extension for field deployment sought till June 2019	Rs 24.38 L	DAE BRNS Mumbai

## (ii) Projects sanctioned during the year\*:

Name of Investigator	Title of Project and duration	Amount sanctioned (Rs)	Funding Agency
Prof. Narendra Nath Ghosh (PI) * (* this sanctioned project is already mentioned under the ongoing projects)	Development of Mesoporous Silica (or Alumina)- SiC-metal nanoparticle-based nanocomposites for Radar Absorption Application at High Temperature (2018- 2019)	15.13 L	DRDO
Prof. Mainak Banerjee*	Design and synthesis of smart supramolecular dyes based on TPE modified PDI–cucurbituril conjugates: their binding and photophysical studies and application in the detection of biogenic polyamines. 3 YEARS	28 L	BRNS

\*Mention if the sanctioned project is already under the ongoing projects.

**(iii) Projects approved during the year:**

Name of Investigator	Title of Project and duration	Amount proposed (Rs)	Funding Agency
Prof. Halan Prakash , PI, Indian Leader for Drinking water work package	Photo-irradiation and Adsorption based Novel Innovations for Water-treatment –PANI Water treatment Submitted Feb 27, 2018, Approved on June, 2018, Project duration; Feb 2019 to Jan 2023 (4 years)	291 L	DST, Govt of India. ( Under the call DST-EU Horizon 2020 water )

**(iv) Projects completed this year:**

Name of Investigator	Title of Project and duration	Amount sanctioned (Rs)	Funding Agency

**B. Publications of 2018 (Jan-Dec):****Authors names, "Title", journal (in italics), year, volume, page number -**

- MadhuryaChandel, Priyanka Makkar, Barun Kumar Ghosh, DebabrataMoitra and Narendra Nath Ghosh, A facile synthesis methodology for preparation of Ag–Ni-reduced graphene oxide: a magnetically separable versatile nanocatalyst for multiple organic reactions and density functional study of its electronic structures, *RSC Advances*, 8, 37774–37788 (2018).
- Ram U Gawas, Shivesh Anand, Barun K Ghosh, PrinceeShivbhagwan, Kushav Choudhary, Narendra Nath Ghosh, Mainak Banerjee, Amrita Chatterjee, Development of a Water-Dispersible SBA-15-Benzothiazole-Derived Fluorescence Nanosensor by Physisorption and Its Use in Organic-Solvent-Free Detection of Perborate and Hydrazine, *ChemistrySelect*, 38, 10585-10592, (2018).
- MadhuryaChandel, DebabrataMoitra, Priyanka Makkar, Harshit Sinha, Harshdeep Singh Hora, and Narendra Nath Ghosh, Synthesis of Multifunctional CuFe<sub>2</sub>O<sub>4</sub>-Reduced Graphene Oxide Nanocomposite: An Efficient Magnetically Separable Catalyst as well as High Performing Supercapacitor and First-Principles Calculations for its Electronic Structures, *RSC Advances* 8, 27725- 27739 (2018)
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  22. Mechanochemical synthesis of 7-oxa-4-thia-1-azabicyclo [3.2.1] octane-4,4-dioxides via tandem Michael addition-1,3-dipolar cycloaddition of aldoximes and evaluation of their antibacterial activities, Zigmee T. Bhutia, Avijit Das, Malabika Biswas, Amrita Chatterjee and Mainak Banerjee, *Eur. J. Org. Chem.* 2018, 506–514.
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  24. Krishna Kumari Swain, and Sunil BhandA dual-readout magnetic nanoparticle-based enzyme assay for the sensitive detection of Hg (II) ions in drinking water. *ACS Earth Space Chem.* Just accepted Publication Date (Web): November 13, 2018 (Article). DOI: 10.1021/acsearthspacechem.8b00142; <https://pubs.acs.org/doi/10.1021/acsearthspacechem.8b00142>
  25. A. Sharma, R. Khan, G. Catanante, T.A. Sherazi, S. Bhand, A. Hayat and J.L. Marty Designed Strategies for Fluorescence-Based Biosensors for the Detection of Mycotoxins Toxins (2018)10(5), 197; <https://doi.org/10.3390/toxins10050197>
  26. Namita Ashish Singh, Naresh Kumar, H. V. Raghu, Sunil Bhand, Sudhir Chandra, Pradeep Kumar Sharma. A spore-based miniaturized novel assay for rapid aflatoxin detection in milk. *Environmental Chemistry Letters* Nov. 2018. <https://doi.org/10.1007/s10311-018-00834-0>
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**Patents:**

1. Dr. Naresh Kumar, Namita Ashish Singh, Vanai Kumar Singh, Sunil Bhand and RK Maik. A Process of preparing a spore inhibition based enzyme substrate assay for monitoring aflatoxin M1 in milk. Patent Grant No. 292836, Date of Grant 13/02/2018 (Assignee ICAR, Govt. of India).
2. Prof. Utpal Roy, Rehan Deshmukh, Prof. Sunil Bhand. Indian Patent Application no. 201821027800 filed Aug. 2018 (Applicant BITS Pilani)
3. Dr. Nabarun Bhattacharyya Prof. Sunil Bhand, Dr A.K. Barooah, Mr Subhankar Mukherjee, Mr Abhra Pal, Mr Souvik Pal, Mr Devdulal Ghosh, Mr Subrat Sarkar, Mr Arun Jana, Mr Ravi Shankar, Dr Raktim Pal, Dr Sangeeta Brochetia. "A field portable uniform illumination Imaging biosensory system (UIIS) for remotely screening chemical contaminants in agri based ssetup. Indian patent application no.201731004018A. Published: Indian Patent Office Journal No. 32/2018 dated 10.08.2018, 30684. Dr Sunil Bhand is inventor from BITS Pilani, Goa Campus.
4. Prof. Halan Prakash, ParakhPriyadarshini, Prasad Panzade Subramanian Gokulakrishnan, A BACTERICIDAL COMPOSITION FOR DISINFECTING WATER, Application no. 201711009974, 20 March, 2017, The Indian Patent Office, Filed in name of BITSHalan Prakash as lead investigator. Publication date 28/09/2018

**C. Conferences attended/papers presented & Invited Talks given:**

1. Prof. A.P. Koley attended 9th Asian Biological Inorganic Chemistry Conference held at National University of Singapore (NUS), Singapore during 9 to 14 December 2018 and presented the following paper, "EFFICIENT HYDROLYTIC CLEAVAGE OF DNA AND ANTIPROLIFERATIVE EFFECT ON HUMAN CANCER CELLS BY COMPLEXES OF CU(II) AND ZN(II)"
2. Prof Raghu Nath Behera, A. Panda, V. R. Chary, R. Chittoory, "Computational Study of Catalytic Mechanism of some Diselenide-based Glutathione Peroxidase Mimetic", Computational Chemistry Gordon Research Conference: "Towards Next-Generation Challenges in Computational Chemistry: From Quantum Chemistry and Molecular Simulation to Data Discovery and Quantum Computing", West Dover, VT, USA, July 22-27, 2018.
3. Prof Raghu Nath Behera, Ramya Chittoory and KomalDipule, "Theoretical investigations on the reduction of hydrogen peroxide by diselenide-based glutathione peroxidase mimics", 6th International Conference on Research Frontiers in Chalcogen Cycle Science & Technology (Joint G16 & ABWET Conference), University of Naples Federico II, Italy, Dec 6-7, 2018.
4. (Invited Talk) Prof. Narendra Nath Ghosh "Development of Mesoporous Alumina based Adsorbents for Removal of Fluoride from Water" DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018) at Birla Institute of Technology & Sciences (BITS), KK Birla Goa Campus, Indian 23rd -26th May, 2018
5. (Poster presentation) Debabrata Moitra, Barun Kumar Ghosh, Manoj Kumar Patra, Sampat Raj Vadera, and Narendra Nath Ghosh, "Development of Reduced Graphene Oxide- ferrite nanocomposites as Efficient Light Weight Microwave Absorbers in X-Band Region" DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018) at Birla Institute of Technology & Sciences (BITS), KK Birla Goa Campus, Indian 23rd -26th May, 2018
6. Prof. Ranjan Dey delivered a talk at Department of Chemistry, University of Cambridge, 18<sup>th</sup> June, 2018.
7. Prof. Ranjan Dey delivered an invited talk at SCIFFI on Popular Science, Sharda Mandir School, Mirmar, Panjim, 27<sup>th</sup> Nov, 2018. He was also the SCIFFI Resource Scientist for 75<sup>th</sup> Talk at Mount Litera Zee School, Sancoale, 18<sup>th</sup> December, 2018.
8. Prof. Amrita Chatterjee gave Invited talks in ICCS 2018 (EMN 2018 meeting); Rome, Italy; June 2018 and in the Department of Chemistry, University of Turino, Italy. July 2018
9. Mr. Santosh Kokate, Research Scholar (under Prof. Halan Prakash) Department of Chemistry, presented a paper titled Degradation of organic pollutants in water by nickel based activated peroxo compounds in the the conference Xenowac, 2018 (Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse) , 10-12 October, 2018 held at University of Cyprus, Cyprus, 2018. [www.xenowac2018.com](http://www.xenowac2018.com)
10. Prof. Halan Prakash, attended DSIR meeting at BITS, Pilani, Hyderabad campus. "Innovation Equity of Science & Technology" on 27.01.18 at BITS, Pilani, Hyderabad Campus. Workshop focused to promote students/faculty for proposal submissions to DSIR, India.
11. Sharan Hiremath, Prof Mainak Banerjee and Prof Amrita Chatterjee Design and synthesis of graphene oxide based AIE-sensor for selective detection of Hg(II) in aqueous medium. 14<sup>th</sup> DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2018).Jan 3 - Jan 7, 2018, BARC, Mumbai

12. Sharan Hiremath, Prof Mainak Banerjee and Prof Amrita Chatterjee, A reduced graphene oxide based "turn-on" fluorescent assay for selective detection of Hg(II) in aqueous medium DAE - BRNS Eighth Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC-2018). 23-26 May, 2018 Department of Chemistry, BITS-Pilani KK Birla Goa Campus
13. Zigme T. Bhutia, Dharmendra Das, Amrita Chatterjee and Prof Mainak Banerjee International Conference on Organometallics and Catalysis (ICOC 2018). Mechanochemistry: A Greener way to Heterocyclic Scaffolds. 13-16 December, 2018 Hotel Holiday Inn, Goa.
14. Prof Sunil Bhand delivered Invited talk "Novel sensors based on molecularly imprinted polymers" at National seminar "IoT inspired Food Safety & Residue Detection" organized by CDAC Kolkata, MeitY, Govt of India and RD Tata Trust in Association with BITS Pilani KK Birla Goa Campus and Jadavpur University Kolkata on 18 Dec 2018 at Kolkata.
15. Prof Sunil Bhand delivered invited lecture "Frontiers in Interdisciplinary research –from invention to innovation" as Mentor at INSPIRE Internship Science Camp organized by Christ College, Rajkot affiliated to Saurashtra University, during 10-14 July 2018 Sponsored by Department of Science and Technology, DST N Delhi (Govt. of India).
16. Prof Sunil Bhand delivered an invited lecture "Chemical contaminant analysis using biosensors" at Indo-Israel Workshop on Nanoelectronic Materials and Devices (I2NMD) 2018 held on 2<sup>nd</sup> November, 2018, organized by Department of Electrical and electronics Engineering BITS Pilani, Pilani Campus in association with Tel Aviv University, Israel.
17. Prof Sunil Bhand delivered an invited lecture "Recent developments in biosensors for food toxin analysis" at International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS 2018) organized by BITS Pilani, Pilani Campus during Nov. 1-3, 2018.
18. Prof Sunil Bhand delivered Invited talk "New frontiers in Societal applications of Biosensors" at National Seminar on Trends and Applications of ICT in Agriculture (TRACT,2018) organized jointly by CDAC Kolkata and India Metrology Society (IMS), March 13, 2018 Kolkata.
19. Prof Sunil Bhand made oral presentation "Biosensors for Food Traceability" at Indo-Norway First RE-Food Symposium "Sustainable technologies for food processing and preservation" jointly organized by BITS Pilani, IIT Kharagpur and SINTEF Ocean NORWAY. Feb 8 & 9 2018 at BITS Pilani K.K. Birla Goa Campus, India.
20. Krishna Kumari Swain, Prof Sunil Bhand "A colorimetric magnetic nano particle based enzyme assay for sensitive detection of Cd(II) ions in drinking water" International conference on Biomaterials, BioEngineering and BioTheranostics (BioMET) 2018 VIT, Vellore, India 26th -28th July, 2018 (Poster presented by Krishna Kumari Sawain)
21. G. Bacher, A.C. Singh, Prof Sunil Bhand, "Performance Evaluation of Immunosensor Based on Stability of Self-Assembled Monolayers (SAMs) Using EIS" poster presentation in 28<sup>th</sup> WORLD BIOSENSOR CONGRESS- 2018 held at Florida USA (Poster)

#### D. Books Published/Edited during the year:

1. Harichandra U. Chandekar, Vikas V. Chaudhari, Sachin D. Waigaonkar, Narendra N. Ghosh, "Thermal and Dynamic Mechanical Analysis of Jute Polypropylene Composites" in *Advanced Polymeric Materials for Sustainability and Innovations* (Editor: Sajith Thottathil, Sabu Thomas, Nandakumar Kalarikkal, Didier Rouxel) Publisher: Apple Academic Press, USA (ISBN-13: 978-1771886338 & ISBN-10: 1771886331) page: 367-376 (2018).
2. M.H. Asif, A Razaq, S. Bhand, M. Willander, B. Danielsson (2018) Nanotechnology and Biosensors. A volume in *Advanced Nanomaterials*. pp 29-49. Chapter 2 – Biosensors for Intracellular and Less Invasive Measurements Based on Nanostructured Metal Oxides. (Eds.) Dimitrios Nikolelis Georgia Paraskevi Nikoleli. ELSEVIER. DOI: <https://doi.org/10.1016/B978-0-12-813855-7.00002-7>.
3. Bhand S., Bacher G. (2018) Impedimetric Sensors in Environmental Analysis: An Overview. In: Bhattacharya S., Agarwal A., Chanda N., Pandey A., Sen A. (eds) *Environmental, Chemical and Medical Sensors. Energy, Environment, and Sustainability*. Springer, Singapore. (page no...) DOI [https://doi.org/10.1007/978-981-10-7751-7\\_4](https://doi.org/10.1007/978-981-10-7751-7_4)

#### E. Conferences, seminars & workshops conducted: 03

1. 8<sup>th</sup> DAE-BRNS Symposium on Emerging Trends in Separation Science and Technology" (SESTEC-2018) 23<sup>rd</sup> May
2. Recent Trends in Chemistry: Students' Meet-2018, 25<sup>th</sup> Feb 2018
3. School on Advanced Oxidation Processes, S-AOP-2018, 16th November.

**F. Invited talks arranged in the department: 03**

1. Dr. Silas Cook, Associate Professor, Department of Chemistry, INDIANA UNIVERSITY, BLOOMINGTON, USA  
Title of the talk: Changing Perceptions: Advancing Cross Coupling through Radical Organometallics  
Date: 17-12-2018
2. Prof. Swadhin K. Mandal, Associate Professor, IISER, Kolkata  
Title of the talk: The First Isolated Abnormal NHC Date: 19-02-2018.
3. Dr. Prakash P Wadgaonkar, Chief Scientist, Polymers Science and Engineering Division, NCL Pune  
Title of the talk: From Agricultural Waste Products to Value Added Monomers: Exploitation of Cashew Nut Shell Liquid (CNSL) and Lignin-Derived Aromatic Chemicals, 09-03-2018.

**G. Awards and recognitions won by faculty and student**

1. Prof. Ranjan Dey became an Elected Fellow of the Royal Society of Chemistry (FRSC), U.K. October 2018.
2. Prof. Narendra Nath Ghosh received Visiting Scholar Award and visited Department of Chemistry of University of Tartu, Estonia during 29th September -10th October 2018 to teach a course Nanomaterials and Nanotechnology and their applications in Analytical Chemistry for EACH - Excellence in Analytical Chemistry (Erasmus Mundus Joint Master Degree programme).
3. Prof. Narendra Nath Ghosh has been appointed as a member of the editorial board of journal "Advances in Nanomaterials", publish by Science Publishing Group, USA.
4. Prof. Halan Prakash received Outstanding reviewer of Journal of Hazardous Materials, Chemical Engineering Journal, and Journal of Environmental Chemical Engineering
5. Best Poster Award (Second Prize) Krishna Kumari Swain, R. Balasubramanian, Prof. Sunil Bhand "Development of an enzyme coupled nanoprobe for analysis of Hg<sup>2+</sup>, Cd<sup>2+</sup> and Pb<sup>2+</sup> ions; applications to drinking water and fish" in a two-day DAE-BRNS sponsored symposium on "Analytical Science at NCCCM: A Journey over 25 Years" NCCCM/BARC, Hyderabad, India 30<sup>th</sup> Nov-1<sup>st</sup> Dec, 2018.

**H. Faculty Development, International Collaboration & Industry Immersion**

1. Prof. Halan Prakash was accepted as a scientific committee member, and chair for emerging contaminants sessions from Asia region for Xenowac II conference (Oct 2018) at International Water Research Center, University of Cyprus, Europe.
2. Prof. Halan Prakash was invited as a Visiting Faculty at NIREAS. Taught one course on Advanced Oxidation Processes titled – Analytical Methods in Advanced Oxidation Processes'.
3. Prof. Sunil Bhand appointed as expert reviewer by Swiss National Science Foundation for review of project proposals.
4. Prof. Sunil Bhand appointed by French Embassy for the review of ongoing projects in the area of biosensors.
5. Prof. Sunil Bhand invited by BIRAC for review of major projects under BIPP program.
6. Prof. Sunil Bhand was invited for review of IMPRINT project proposals.
7. Prof. Sunil Bhand elected as Chairman IIM Goa Chapter for 2018-2019.
8. Prof Sunil Bhand invited by UGC-HRDC, Goa University, to conduct a grant writing workshop at 102nd Orientation program in Dec 2018 to the freshly joined academicians
9. Prof. N.N. Ghosh Sessioned Chair at DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018) at Birla Institute of Technology & Sciences (BITS), KK Birla Goa Campus from 23<sup>rd</sup> -26<sup>th</sup> May, 2018.
10. Prof. Ranjan Dey visited the Department of Chemistry, Cambridge University, U.K. June – July 2108 under the University Immersion Program.
11. Prof. Mainak Banerjee visited the Department of Chemistry, University of Turin, Italy and initiated an International collaboration with Prof. Giancarlo Cravotto.

**I. Significant new equipments/experimental facility added during the year**

- I. TOC
- II. Fluorometer
- III. Flash Chromatograph

**B2.10.3 Department: Chemical Engineering**

Number of faculty members (as on 31 December 2018): 16

<b>Senior Professors, Professors</b>	<b>02</b>
<b>Associate Professors</b>	<b>02</b>
<b>Assistant Professors, Gr-I</b>	<b>11</b>
<b>Assistant Professors, Gr-I</b>	<b>00</b>
<b>Visiting Faculty</b>	<b>01</b>

**Head of the Department:** Prof. Saroj Sundar Baral**Contact details (email):** ssbaral@goa.bits-pilani.ac.in**Number of PhD Scholars:** 09(full time), 08 (part time), 15 Project Fellows = **32****Number of Project Fellows:** 15**No. of Post-Doctoral Scientists:** 00**Ph.D. Thesis awarded during the year:** 0**A. Sponsored Research activities:****(i) Ongoing projects:** 17

<b>Name of the Investigator</b>	<b>Title of the project and duration</b>	<b>Amount sanctioned (Lakhs)</b>	<b>Funding Agency</b>
Srinivas Krishnaswamy K.N. Ponnani (Co-PI)	Experimental and Simulation Studies on Coke Mitigation in Petroleum Refinery Systems (3 years)	<b>Total outlay</b> Rs. 3,23,20,000/- <b>BITS share:</b> 1,32,97,000/-	Centre for High Technology (CHT)
Asima Shaukat	Rheological dynamics of polymer –layered silicate/ graphene nano-composites (3 years)	35	INSA INSPIRE, DST
Asima Shaukat	Viscoelastic, viscoplastic and thixotropic behavior of biogreases and its influence on lubrication (tribological) behavior	54 lakhs	Early Career Research Award, DST-SERB
Jegatha Nambi Krishnan	Ion selective sensors for heavy metal ion detection in water medium	15 (5 years) (After Review of Opera Award Assessment, on 3rd year, it has been extended for the remaining period upto 10/9/2018 and the grant has been revised to Rs.3.60 lakhs per year	BITS Pilani (OPERA Award)
Sutapa Roy Ramanan (PI) Meenal Kowshik (Co-I)	Synthesis of hydroxyapatite based biocompatible functional magnetic nanoparticles and investigation of its interaction with biomolecules	Rs.45000	UGC-DAE-CSR and BARC Mumbai
Meenal Kowshik (PI) Sutapa Roy Ramanan (Co-PI)	Lanthanide doped hydroxyapatite based nano-materials for theranostics applications: Sensing, Imaging, and Therapeutics	Rs.3964771	DST
Saroj Sundar Baral	Development of efficient bioleaching process for the metal recovery from spent catalysts,	Rs. 29,56,600/	Department of Biotechnology, Government of India.
Saroj Sundar Baral	Investigating the effect of co-digestion and advanced sludge	Rs.27,48,860/-	Department of Biotechnology,

Name of the Investigator	Title of the project and duration	Amount sanctioned (Lakhs)	Funding Agency
	pre-treatment methods on the anaerobic conversion potential of the organic wastes (As Co-Investigator)		Government of India
Jegatha Nambi Krishnan	Chlorine resistant Nano Enhanced Polymer Blend Membranes, 3 years	3174281	DST - SERB
Jegatha Nambi Krishnan	Ion Selective Sensor for Arsenic Detection in Water medium, 2 years	2 lakhs	DSTE, Govt. Of Goa
S D Manjare (Principal Investigator)	"Process improvements in Urrakh and Feni production in Goa"	Total grant Rs. 7,50,000/-	department of Science, Technology & Environment, Govt of Goa
Srinivas Krishnaswamy	Unmixed Reforming (UMR) of Methane for Hydrogen Production	56,11,100/- + 6,00,000/-	DST – SERB / BPCL Corporate R&D
S D Manjare	Air Quality Impact Assessment of Cargo handling at Mooring Dolphins" September 2018 – March 2019.	Rs 16,75,600/-	Mormugao Port Trust (MPT), Vasco,
S D Manjare	Life Cycle Assessment study for Maharashtra Aldehydes and Chemicals Ltd" November 2018- January 2019	Rs 7.0 Laks	Maharashtra Aldehydes and Chemicals Ltd, Mahad, Mumbai
S D Manjare	Performance assessment studies on the production process of Thiamethoxam" July 2018 – December 2018.	Rs 3, 00,900/-	DeccanFine Chemicals (India) Pvt Ltd. Hyderabad
Manjuri Kumar	Synthesis of mononuclear as well as homo and hetero dinuclear complexes of Cu(II) and Zn(II) with hard-soft donor ligands and evaluation of their anticancer activities", (sanctioned on 6-11-18)	2305578	DST- EMR
Saroj Sundar Baral	Development of suitable material for visible light induced photocatalytic hydrogen production from industrial wastewater	Total cost Rs. 53,32,000/-	Department of Science and Technology, Government of India

## (ii) Projects sanctioned during the year: 6

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
Vivek Rangarajan	Formulation of bio-functionalized cosmetic emulsions using biosurfactant and essential oil as green ingredients (Aug 2018 to July 2021)		DST SERB
Vivek Rangarajan	Improvement in Feni/Urrak production		DST-GOIA
Vivek Rangarajan	Isolation and characterization of biopolymer producing bacteria, and media optimization based on cheaper substrates for the optimal production of biopolymer (2018-2019)		ACG, BITS Pilani
Richa Singhal	Early Career Research Award: "Mechanistic approach to design composite metal-carbon nanofiber oxygen electrodes for high-	45.599 lakhs	Science and Engineering Research Board (SERB)-DST

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
	performance metal-air batteries"		
Richa Singhal	Additional Competitive Grant: "Aqueous rechargeable metal-air batteries for large scale energy storage"	8.77 lakhs	BITS Pilani
Pradeep Kumar Sow	Electrochemical Process for Hydriodic Acid decomposition in Iodine Sulphur cycle	11.69 lakhs	ONGC

(iii) Projects approved during the year (new): 0

(iv) Projects completed this year: 2

Name of the Investigator	Title of the project and duration	Amount sanctioned (Rs.)	Funding Agency
S D Manjare	"Performance assessment studies on the production process of MTB (a herbicide)"	Rs. 2, 44,850/-	Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad
S D Manjare	Performance assessment studies on the production process of CPTAP"	Rs. 2, 56,650/-	Deccan Fine Chemicals (India) Pvt Ltd. Hyderabad

#### B. Publications: 16

- Manjuri K. Koley, Sidhali Uday Parsekar, Natarajan Duraipandy, Manikantan Syamala Kiran, Babu Varghese, Periakaruppan T. Manoharan and Aditya P. Koley: DNA binding and cytotoxicity of two Cu(II) complexes containing a Schiff base ligand along with 1,10-phenanthroline or imidazole as a coligand. *Inorganica Chimica Acta*, Elsevier, 478, 211-221, (2018).
- Sidhali U. Parsekar, Joseph Fernandes, Arnab Banerjee, Om Prakash Chouhan, Sumit Biswas, Manohar Singh, Durga P. Mishra and Manjuri Kumar: DNA binding, cleavage and cytotoxicity studies of three mononuclear Cu(II) chloro-complexes containing N-S donor Schiff base ligands. *Journal of Biological Inorganic Chemistry*, 23, 1331-1349, (2018).
- A. D. Patil, S. S. Baral, P. B. Dhanke, C. S. Madankar U. S. Patil, Parametric studies of methyl esters synthesis from Thumba seed oil using heterogeneous catalyst under conventional stirring and ultrasonic cavitation, *Materials Science for Energy Technologies*, 2018, Accepted, Elsevier.
- G Surendran, S. S. Baral, Bio-sorption of Cr(VI) from wastewater using *Sorghastrum Nutans* L. Nash, *Chemistry and Ecology*, Accepted, 2018, Taylor & Francis (IF 1.463).
- Saroj S. Baral, P. Venkateswara Rao, G. Surendran, Pretreatment of organic composite waste mixtures for enhanced biomethanation, *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 40 (2018) 1380-1387 Taylor & Francis (IF 0.527).
- Srinivas Krishnaswamy, Amol Deshpande & K. N. Ponnani, "Modelling of unmixed combustion based packed bed reactor system for heat transfer applications", *Chemical Engineering Science*, 178, (2018), 367 – 376
- Parul Sahu, Srinivas Krishnaswamy, K. N. Ponnani & N. K. Pande, "A thermodynamic approach to selection of suitable hydrate formers for seawater desalination" *Desalination*, 436, (2018), 144 – 151
- Vivek Rangarajan, Gunaseelan Dhanarajan, Pinaki Dey, Dipankar Chattopadhyay, Ramkrishna Sen. Bacillus lipopeptides - Powerful capping and dispersing agents of silver Nanoparticles. *Applied Nanoscience* (Accepted) (IF-2.95)
- Vivek Rangarajan and Mahesh Narayanan. Biosurfactants in Soil Bioremediation. *Advances in Soil Microbiology: Recent Trends and Future Prospects*. Springer (2018). DOI 10.1007/978-981-10-6178-3\_11 (Book Chapter)
- Gunaseelan Dhanarajan, Partha Patra, Vivek Rangarajan, Ponisseril Somasundaran and Ramkrishna Sen. Modeling and analysis of micellar and microbubble dynamics to derive new insights in molecular interactions impacting the packing behavior of a green surfactant for potential engineering implications. *ACS Sustainable Chemistry & Engineering* (2018). DOI: 10.1021/acsuschemeng.7b04428 (IF-6.14)

11. C.H. Kung, B Zahiri, P.K. Sow, W Mérida, "On-demand oil-water separation via low-voltage wettability switching of core-shell structures on copper substrates" *Applied Surface Science* 444 (2018) 15–27, Impact Factor: 3.387
12. C.H. Kung, B Zahiri, P.K. Sow, W Mérida, Electrochemical Wettability Control on Cu/Cu<sub>2</sub>O Core-Shell Dendrites: In-Situ Droplet Modulation and On-Demand Oil-Water Separation, *MRS Advances*, (2018)1-7. doi:10.1557/adv.2018.335
13. P Haldar, A Chatterjee, "Extent Of Dissolution Determines The Structural Similarity Between Dealloyed Nanoporous Materials Synthesized At Unrelated Dissolution Conditions", *Acta Materialia*, 152 (2018), 186-198.
14. Sow, Pradeep Kumar; Ishita; Singhal, Richa (2018): Sustainable approach to recycle waste polystyrene to high-value submicron fibers using solution blow spinning and application towards oil-water separation. *Journal of Environmental Chemical Engineering*, ISSN 2213-3437, <https://doi.org/10.1016/j.jece.2018.11.031>.
15. Li, Fang-Fang; Singhal, Richa; Ren, Jiawen; Johnson, Marcus; Lefler, Matthew; Licht, Stuart (2018): Solar Electrochemical Thermal Process (STEP) Ammonia: Optimization of the Electrolysis Conditions. *ChemRxiv*. Preprint. <https://doi.org/10.26434/chemrxiv.6667496.v1>
16. Tanmay Singhal and Manjare S. D., "Modeling Studies on Reactive Absorption of Carbon Dioxide in Monoethanolamine Solution from Flue Gas in Coal Based Thermal Power Plants", "Journal of Sustainable Development of Energy, Water and Environment Systems, Volume 6, Issue 3, pp 481-493, 2018, (SNIP 0.574, SJR 0.321, Cite Score 1.10), DOI: <http://dx.doi.org/10.13044/j.sdewes.d6.0227>

#### Patents: 00

#### B. Conferences attended/papers presented: 22

1. Parsekar Sidhali Uday , Joseph Fernandes, Arnab Banerjee, Manjuri K. Koley\* , ROS - Mediated Cytotoxicity of Cu(II) complexes against Human Cervical Cancer HeLa Cell line . International Conference on Reproductive Physiology and Comparative Endocrinology ( ICRPCE ) and 36 th Annual Meeting o f the Society for Reproductive Biology and Comparative Endocrinology ( SRBC E - XXXV I ). 20 t h - 22 n d Ja nu a ry , 2 0 1 8 .
2. Sidhali Uday Parsekar and Manjuri Kumar \* : DNA binding and in vitro cytotoxicity studies of a mixed - ligand mononuclear copper(II) complex . Biological Engineering Society India . Annual Meeting and Conference BESCON 2018 , IIT Bombay, 26 - 27 October 2018.
3. Manjuri K. Koley, Sidhali U. Parsekar, Joseph Fernandes and Arnab Banerjee: Synthesis, in vitro cytotoxicity and anticancer activity of some C U (II) complexes containing N 2 S (thiolate) and N 4 S (disulfide) cores. 9th Asian Biological Inorganic Chemistry Conference ( AsBIC 9 ) Stephen Riady Centre, National University of Singapore 9 - 14 December 2018 .
4. H. M. Mouna, S. S. Baral, Bioleaching of Nickel and Vanadium from the spent fluid catalytic cracking catalyst using *Aspergillus niger*, 13th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES- 2018, 30th September - 4th October, 2018, at Palermo, Italy. Accepted for oral presentation.
5. Shuchi, S. S. Baral, Visible light induced photocatalytic degradation of phenol using TiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-RGO composite catalyst, 13th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES- 2018, 30th September - 4th October, 2018, at Palermo, Italy, Accepted for Poster presentation
6. H. M. Mouna, S. S. Baral, Bioleaching of iron from Spent Fluid Catalytic Cracking (FCC) catalyst by *Aspergillus niger*, DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018), May 23-26, 2018, BITS Pilani K.K. Birla Goa Campus, Goa.
7. Ganesan Surendran, Dileep M, S. S. Baral, Attribute based specification, comparison and selection of adsorbents for the treatment of Cr(VI) contaminated wastewater using fuzzy logic approach, DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018), May 23-26, 2018, BITS Pilani K.K. Birla Goa Campus, Goa.
8. J. Nambi Krishnan\*, V. Kaarthick Raaja, S. Gautham, S. Narang and S. Mehra, "Sulfonated PBI based blend membranes for Desalination", International Conference on Desalination (InDA 2018) Clean India Technologies, Role of Desalination and Swachh Bharat Mission, NIT Tiruchirappalli, India.
9. J. Nambi Krishnan\*, V. Kaarthick Raaja and S. Gautham, "Acid polymer rich acid-amphiphilic blend membranes and their properties", The 6th International Water Association Regional Membrane Technology Conference (IWA-RMTC 2018), The M. S. University of Baroda, Gujarat, India.
10. K. Vatsa, A. K. Ajay, M. Patil, B. Simhachalam, V. Singh and J. Nambi Krishnan\*, "Investigation of Electroless plating system for Sn-Zn alloy deposition", 71st Annual Session of Indian Institute of Chemical

Engineers, CHEMCON-2018, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India.

11. J. Nambi Krishnan\*, V. Kaarthick Raaja and S. Gautham, "Amphiphilic polymer rich amphiphilic-acid blend membranes and their properties", The 15th International Conference on Polymer Science and Technology (SPSI-MACRO-2018), Indian Institute of Science Education and Research (IISER), Pune, Maharashtra, India.
12. Shivam Monga, Prateek Srivastav, Buch Khantil Parag, Siddharth Das, Vivek Khanna, Balusu Susritha, Sourav Kumar and Vivek Rangarajan. A novel strategy to utilize citrus peels for pectinase production ICAFB 2018, Karunya University
13. Sourav Kumar, Divya Mathias, Vivek Rangarajan. Citrus peels for pectinases production. BESCON 2018, IIT Bombay
14. Divya Mathias, Sourav Kumar, Vivek Rangarajan. A feasibility study on bioethanol production using citrus peel as lignocellulosic feedstock. ICBSEE 2018, NIT Rourkela
15. C.H. Kung, B Zahiri, P.K. Sow, W Mérida, Low-Voltage Reversibly Switchable Wettability through Electrochemical Manipulation of Oxidation State, 233rd ECS Meeting, May 13-17, 2018, Seattle, Washington.
16. Aravind S., Sontakke, S.M., Roy, A. Kinetic modelling of simultaneous photocatalytic degradation, 2018 AIChE annual meeting, Pittsburgh, USA (Oct 2018).
17. Aravind S., Sontakke, S.M., Roy, A. Kinetic modelling of simultaneous photocatalytic degradation, SCHEMCON 2018, Mumbai, India (Oct 2018).
18. Manan Sarupria, S. D. Manjare, Mohan Girap, "Environmental impact assessment studies for mining area in goa Using the new approach" published in the proceedings of 13<sup>th</sup> Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES- 2018, held during 30<sup>th</sup> September - 4<sup>th</sup> October, 2018, at Palermo, Italy.
19. Amit Shanbag and Sampatrao Manjare "Life Cycle Assessment of Methyl Bromide Production Process" published in the proceedings of 13<sup>th</sup> Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES- 2018, held during 30<sup>th</sup> September - 4<sup>th</sup> October, 2018, at Palermo, Italy
20. Anirvan K. Majumdar and S. D. Manjare, "Multivariable Impact Assessment using Fuzzy Logic based model", presented and published in the proceedings of 12th ISDSI (Indian Subcontinent Decision Sciences institute) International Conference held at SPJIMR, Mumbai, during December 27-30, 2018.
21. Ambika N. Parab, Sampatrao .D. Manjare , Halan Prakash, "Studies on removal of atrazine herbicide by chemical degradation" published in the proceedings of DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018), May 23-26, 2018, BITS Pilani K.K. Birla Goa Campus, Goa.
22. Sampatrao D. Manjare; Kabir Dhingra, "Supercritical Fluids in Separation and Purification: A Review" published in the proceedings of DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018), May 23-26, 2018, BITS Pilani K.K. Birla Goa Campus, Goa.

**D. Books Published/Edited during the year: Nil**

**E. Conferences, seminars & workshops conducted: Nil**

**F. Invited Talks given by BITS faculty: Nil**

**G. Invited talks arranged in the department: Nil**

**H. Awards and recognitions won by faculty and student: Nil**

**I. Faculty Development, International Collaboration & Industry Immersion : None**

**D. Significant new equipments/experimental facility added during the year:**

1. Shaking Incubator 5- 80 °C (LE-TT-A, Scigenics),
2. High Speed Cooling centrifuge, (NEYA 16 R, Remi),
3. Ultrasonicator (Qsonica),
4. High Speed Homogenizer (IKA)
5. Environmental Shaker (Remi),
6. Glass distillation setup



7. Biological cells filtration system (Tarsons),
8. Magnetic Stirrer-4 places (Tarsons)
9. Environmental shaker (Remi),
10. Refrigerator (LG),
11. Soxhlet extraction apparatus,
12. Mini Centrifuge (Remi)
13. Mini Environmental Shaker,
14. Bacteriological Incubator
15. Laminar Hood,
16. Autoclave

**K. Departmental association/club activities:** Nil

**Other activities:** NA

#### B2.10. 4 Department: Computer Science & Information Systems

**Number of faculty members (as on 31 December 2018):** 21

<b>Senior Professors, Professors</b>	<b>05</b>
<b>Associate Professors</b>	<b>03</b>
<b>Assistant Professors, Gr-I</b>	<b>06</b>
<b>Assistant Professors, Gr-II</b>	<b>03</b>
<b>Visiting Assistant Professor</b>	<b>03</b>
<b>Visiting Faculty</b>	<b>01</b>

**Head of the Department:** Prof. Ashwin Srinivasan

**Contact details:** ashwin@goa.bits-pilani.ac.in

**Number of PhD Scholars:** 23 [05 (Full Time) + 15 (Part Time) + 03 (Assistant Professors, Gr-II)]

**Ph.D. Thesis Submitted during the year:** 3

<b>Name</b>	<b>ID No</b>	<b>Thesis Title</b>
Geeta Patil	2011PHXF0409G	Design of Energy Efficient and Deterministic Memory Subsystem for Uniprocessor and Multicore Systems
S R K Prasad Talasila	2013PHXF0200G	Cell Model of Multidimensional Networks
Shubhangi K. Gawali	2011PHXF0020G	Design of Energy Efficient Schedulers for Multicore Hard Real Time Systems

#### A. Sponsored Research activities:

**Total number of Sponsored Projects in the department. Details are given below:**

**(i) Ongoing projects:** 2

<b>Sr.No.</b>	<b>Project Name</b>	<b>Principal Investigator</b>	<b>Funding Agency</b>	<b>Sanctioned Amount</b>	<b>Duration</b>	
					<b>From (Month/Year)</b>	<b>To (Month/Year)</b>
1	Secure Vehicular Communication And Routing In Future Intelligent Transportation Systems (ITS)	Dr.Debasis Das	SERB-DST	₹ 19.81 Lakhs	11-2016	11-2019
2	Development of Remotely Configurable Arbitrary Ramp Generator for FMCW Reflectometry,	Prof. Neena Goveas	BRNS	₹ 28 Lakhs	04-2017	03-2019

3	Knowledge-Rich Deep Models for Optimisation	Prof. Ashwin Srinivasan	SERB	₹ 27 Lakhs	3 years	
4	TCS Research Advisory Agreement	Prof. Ashwin Srinivasan	TCS	₹ 7.5 Lakhs	1 year	
5	Integrating AI-Planning and Machine-learning using Quantum Sampling	Prof. Ashwin Srinivasan	USRA	Access to the D-Wave	Jan 2018	July 2019
6	A Cost-Effective Approach of Making Software Dependable	Prof. Santonu Sarkar	Accenture	₹ 17.5 Lakhs (25000 USD)	Ongoing	
7	Home automation and smart wheel chair based on Electroencephalography (EEG) signals produced in brain	Dr. Veeky Baths (with Prof. Bharat Deshpande as Co-PI)	Cognitive Science Research Initiative (CSRI) of DST	₹ 39 Lakhs	July 2015	July 2018

**(ii) Projects sanctioned during the year: 3**

Sr. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount
1	Digital Mapping of Architectural heritage of Goa: Tracing Cultural, Religious and Regional Influences as Exhibited in Goan Monuments	Co-PI: Dr. Ramprasad S. Joshi	DST-ICDS	₹ 46.28 Lakhs
2	Mobile App for improving survival in fires through efficient egress: the role of impromptu indoor WiFi localization and georeferenced building maps	Prof Ashwin Srinivasan and Prof Vinayak Naik	DST and IC-IMPACS	₹ 115.56 Lakhs= ₹ 79 Lakhs (\$150K, Canada) + ₹36.56 Lakhs (India)
3	Erasmus+ Programme Mobile Unlimited Project with U. Porto	Ashwin Srinivasan	EU	₹ 19.81 Lakhs (24360 Euro, Shared equally)

**(iii) Projects completed this year: 3**

Sr.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration	
					From (Month/Year)	To (Month/Year)
1	Implementation of Wireless Sensor Network for Process Monitoring of GAIL's Pipeline	Prof Neena Goveas (Co-PI)	GAIL India Ltd	₹ 95.87 Lakhs	01-2015	09-2018
2	INSA Ramalinga Swamy Distinguished Visiting Professor Award	Prof. Ashwin Srinivasan	INSA	₹ 7 lakhs	3 months	
3	Addressing Challenges in Application Development for Heterogeneous Computing Platform for Speedup and Efficiency	Prof. Santonu Sarkar	SERB	₹ 37.55 L	Dec 2014	March 2018

**B. Publications: (Journals). 19**

1. Haimonti Dutta, Ashwin Srinivasan "Consensus-based modeling using distributed feature construction with ILP." *Machine Learning*, May 2018, Volume 107, Issue 5, pp 825–858
2. Antonio Pecchia, Stefano Russo, and Santonu Sarkar. "Assessing Invariant Mining Techniques for Cloud-based Utility Computing Systems". In: *IEEE Transactions on Services Computing* (2018), pp. 1–1. doi:10.1109/tsc.2017.2679715.
3. Santonu Sarkar, Ajai V George, and Sankar Manoj. "Thrust2D: A new design abstraction framework for structured grid class of algorithms". In: *Concurrency and Computation: Practice and Experience*(2018), e4740. doi: 10.1002/cpe.4740.
4. Nidhi Tiwari, Umesh Bellur, Santonu Sarkar, Indrawan M et al. "Optimizing MapReduce for energy efficiency". In: *Software: Practice and Experience*(2018). doi: 10.1002/spe.2599.
5. Sreekrishnan Venkateswaran and Santonu Sarkar. "Architectural partitioning and deployment modeling on hybrid clouds". In: *Software: Practice and Experience* 48.2 (2018), pp. 345–365. doi: 10.1002/spe.2496.
6. Soumyadip Bandyopadhyay, Dipankar Sarkar, Chittaranjan Mandal, "Equivalence checking of Petri net based models of program using static and dynamic cut-points", *Acta Informatica*, page 1-63
7. Debasis Das, and Rajiv Misra. "Improvised dynamic network connectivity model for Vehicular Ad-Hoc Networks (VANETs)." *Journal of Network and Computer Applications* 122 (2018): pp. 107-114 ( Core Ranking: Core A, SCI, Impact Factor:3.99)
8. Trupil Limbasiya, Debasis Das, Ram Narayan Yadav, A reputation-based truthfulness paradigm using multi-hop transmission in cognitive radio networks, *International Journal of Ad Hoc and Ubiquitous Computing*, Vol. x, No. x, 2018( Core Ranking: Core B, SCI, Impact Factor=0.7)
9. Debasis Das. "Positive and Negative Link Prediction Algorithm Based on Sentiment Analysis in Large Social Networks." *Wireless Personal Communications* 102, no. 3 (2018): pp. 2183-2198( Core Ranking: Core C, SCI, Impact Factor=1.2)
10. Trupil Limbasiya and Debasis Das, Secure Message Confirmation Scheme Based on Batch Verification in the Vehicular Cloud Computing, *Physical Communication*, Elsevier, 2018(SciMago: Q2, SCI, Impact Factor=1.5).
11. Limbasiya, Trupil, and Debasis Das. "An enhanced message verification system for vehicle-to-vehicle communication." *International Journal of Communication Networks and Distributed Systems* 21, no. 3 (2018): pp. 346-362[ SciMago: Q3, Scopus]
12. Ashu Sharma and Sanjay K. Sahay, "Group-wise classification approach to improve Android malicious apps detection accuracy", Accepted, *International Journal of Network Security*, 2018.
13. Shamanth Nagaraju, Lucy J. Gudino, Nikhil Tripathi, Sreejith V., Ramesha C.K., "Mobility assisted localization for mission critical Wireless Sensor Network Applications using Hybrid Area Exploration Approach", *Elsevier Journal of King Saud University - Computer and Information Sciences*, 2018
14. T. Dash, S.N. Dambekodi, P.N. Reddy, A. Abraham, "Adversarial Neural Networks for Playing Hide-and-Search Board Game Scotland Yard", *Neural Computing and Applications*, 2018; DOI: <https://doi.org/10.1007/s00521-018-3701-0>.
15. T. Dash, H.S. Behera, "A Comprehensive Study on Evolutionary Algorithm based Multilayer Perceptron for Real-world Data Classification under Uncertainty", *Expert Systems*, 2018; DOI: <https://doi.org/10.1111/exsy.12327>.
16. R.R. Swain, P.M. Khilar, T. Dash, "Fault Diagnosis and its Prediction in Wireless Sensor Networks using Regression Learning to achieve Fault Tolerance", *International Journal of Communication Systems*, 2018; DOI: <https://doi.org/10.1002/dac.3769>.
17. R.R. Swain, P.M. Khilar, T. Dash, "Multi-Fault Diagnosis in WSN using Hybrid meta-heuristic trained Neural network", *Digital Communications and Networks*, 2018; DOI: 10.1016/j.dcan.2018.02.001.
18. R.R. Swain, P.M. Khilar, T. Dash, "Neural network based automated detection of link failures in wireless sensor networks and extension to a study on the detection of disjoint nodes", *Journal of Ambient Intelligence and Humanized Computing*, pp. 1-18 (online first), 2018; DOI: 10.1007/s12652-018-0709-3.
19. Thakur, R.; Swain, S.; Siva Ram Murthy, C., "An Energy Efficient Cell Selection Framework for Femtocell Networks with Limited Backhaul Link Capacity," *IEEE Systems Journal*, vol. 12, no. 2, pp. 1969-1980, June 2018. [Impact Factor: 4.337]

**C. Conferences attended/Papers presented/P apers published/Paper Accepted: 38**

1. D. Jaisinghani, R. Balan, V. Naik, Y. Lee, and A. Misra. Experiences & Challenges with Server-Side WiFi Indoor Localization Using Existing Infrastructure. Accepted at The 15th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (Mobiquitous 2018), New York City, USA, Nov 5-7 2018
2. Soumyadip Bandyopadhyay, Dipankar Sarkar, Chittaranjan Mandal, "SamaTulyataOne: A path based equivalence checker", ISEC 2019
3. Trupil Limbasiya and Debasis Das, Geo-Data Transmission Scheme using Rabin Crypto-system for Vehicle-to-Vehicle Communication, The 15th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2018), October 8-12, 2018, Guangzhou, China [ Core Ranking: Core B, h-index= 15]
4. Harsha Vasudev, Debasis Das , Mutual Authentication Protocol for V2V Communication in VANET, The 15th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2018), October 8-12, 2018, Guangzhou, China [ Core Ranking: Core B, h-index= 15].
5. Nav Pal, Komal Gaikwad and Debasis Das, Trust Calculation and Route Discovery for Delay Tolerant Networks, IEEE TENCON 2018, 28-31 October 2018, Jeju, Korea( Core Ranking: Core C, h-index= 37).
6. Debasis Das, A Fast Handoff Algorithm for Wireless Mobile Networks, 15th International Conference on Distributed Computing and Internet Technology (ICDCIT 2019), Bhubaneswar, India, January 10 - 13, 2019, LNCS [ Core Ranking: Core C]
7. Varad Deshpande and Debasis Das, Efficient Searching Over Encrypted Database: Methodology and Algorithms, 15th International Conference on Distributed Computing and Internet Technology (ICDCIT 2019), Bhubaneswar, India, January 10 - 13, 2019, LNCS [ Core Ranking: Core C]
8. Harsha V. and Debasis Das, A Trust Based Secure Communication for Software Defined VANETs , The 32nd International Conference on Information Networking (ICOIN) 2018, January 10-12, 2018, Chiang Mai, Thailand [Conference Ranking: B1].
9. Debasis Das, Secure Cloud Computing Algorithm Using Homomorphic Encryption and Multi-Party Computation, The 32nd International Conference on Information Networking (ICOIN) 2018, January 10-12, 2018, Chiang Mai, Thailand [Conference Ranking: B1].
10. Madhur Poddar, Swathi Ganta, Swaraj K R and Debasis Das, Privacy in the Internet of Vehicles: Models, Algorithms, and Applications, 33th IEEE International Conference on Information Networking (ICOIN) 2019, January 9-11, 2019(Accepted)[ Conference Ranking: B1]
11. Harsha Vasudev and Debasis Das, Secure Lightweight Data Transmission Scheme for Vehicular Ad hoc Networks, IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS) 2018, Indore, India, 16-19 Dec 2018[ Conference Ranking: B3].
12. Harsha V. and Debasis Das, A Lightweight Authentication and Communication Protocol in Vehicular Cloud Computing, 33th IEEE International Conference on Information Networking (ICOIN) 2019, January 9-11, 2019(Accepted)[ Conference Ranking: B1]
13. Debasis Das, An Efficient Opportunistic Routing Algorithm in Vehicular Adhoc Networks(VANETs), Second International Conference on Advanced Computational and Communication Paradigms (ICACCP), Sikkim, India, 25th to 28th of February, 2019[Accepted]
14. TSRK Prasad, Shaik Asifullah, Neena Goveas, and Bharat M. Deshpande, Transit Timetables as Multi-layer Networks, COMSNETS 2018,
15. Prasad Talasila, Mihir Kakrambe, Anurag Rai, Sebastin Santy, Neena Goveas, and Bharat M. Deshpande , BITS Darshini: A Modular, Concurrent Protocol Analyzer Workbench ICDCN 2018 (2018)
16. Rizwan Parveen, Shubham Pradhan and Neena Goveas, Design and Feasibility Study of Health Related Devices using COTS Components IEEE ICPS 2018( 2018) (Accepted)
17. Hemant Rathore, Sanjay K. Sahay, Palash Chaturvedi and Mohit Sewak, "Android Malicious Application Classification Using Clustering" Accepted, 18th International Conference on Intelligent Systems Design and Applications, Dec. 6-8, 2018, Vellore, Proceedings in Springer, Advances in Intelligent Systems and Computing.
18. Hemant Rathore, Swati Agarwal, Sanjay K. Sahay, and Mohit Sewak, "Malware Detection using Machine Learning and Deep Learning", Accepted, Sixth International Conference on Big Data Analytics, Dec. 18-21, 2018, Warangal, India. Lecture Notes in Computer Science, vol 11297. pp 402--411
19. Mohit Sewak, Sanjay K. Sahay and Hemant Rathore, "An Overview of Deep Learning Architecture of Deep Neural Networks and Autoencoders", Accepted, International Conference on Intelligent Computing, Oct. 25-27, 2018, Amrita Uni- versity, Proceedings in Journal of Computational and Theoretical Nanoscience.

20. Sanjay K. Sahay and Ashu Sharma , “A Survey on the Detection of Android Malicious Apps”, Accepted, 3rd International Conference on Computer, Communication and Computational Sciences, Oct. 20-21, 2018, Bangkok, Proceedings in Springer, Advances in Intelligent Systems and Computing.
21. Sanjay K. Sahay and Mayank Chaudhari, “An Efficient Detection of Malware by Naive Bayes Classifier Using GPGPU”, Accepted, 3rd International Conference on Computer, Communication and Computational Sciences, Oct. 20-21, 2018, Bangkok, Proceedings in Springer, Advances in Intelligent Systems and Computing.
22. Sanjay K. Sahay, Ashu Sharma and Hemant Rathore, “Evolution of Malware and its Detection Techniques”, Accepted, 3rd International Conference on ICT4SD, Aug. 30-31, 2018, Goa, Proceedings in Springer, Lecture Notes in Networks and Systems.
23. Sanjay K. Sahay and Ashu Sharma, “A Survey on the Detection of Windows Desktops Malware”, Accepted, 3rd International Conference on Recent Advancements in Computer, Communication and Computational Sciences, Aug. 10-11, 2018, Ajmer, Proceedings in Springer, Advances in Intelligent Systems and Computing.
24. Mohit Sewak, Sanjay K. Sahay and Hemant Rathore, “An investigation of a deep learning based malware detection system”, ACM, pp. 26, Proceedings of the 13th International Conference on Availability, Reliability and Security (ARES), 27-30 Aug., 2018, University of Hamburg, Germany.
25. Mohit Sewak, Sanjay K. Sahay and Hemant Rathore, “Comparison of Deep Learning and the Classical Machine Learning Algorithm for the Malware Detection”, IEEE, pp. 293-296, 19th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD), 2018.
26. V. Sreejith, Rutuja Surve, Nikhil Vyas, K.R. Anupama, Lucy J. Gudino -"Area Based Routing Protocol for Mobile Wireless Sensor Networks"- Presented in 32nd International Conference on Information Networking (IEEE-ICOIN) Chiang Mai, Thailand, Jan-2018
27. Himanshi Sharma, Akash Sachan, Kandarp Gupta, Sreejith V., "A Received Signal Strength Based Fall Detection System Using Cognitive Sensing" -Presented in IEEE TENCON, Korea, Oct 2018
28. Siddarth Sreeni, Hari S R., Harikrishnan R., Sreejith V., "Multi-Modal Posture Recognition System for Healthcare Applications" - Presented in IEEE TENCON, Korea, Oct 2018
29. Nipun Sood, Shamanth Nagaraju, Sreejith V. and Lucy J. Gudino, "Collaborative Neighbor Discovery with Slow Scan for Directional Sensor Networks" Accepted in Proceedings of 28th IEEE ITNAC, Sydney, Australia, Nov 2018
30. Pratikkumar Desai, Deval Sanjay Garde, Sreejith V and Bijil Prakash-“Brain-Computer Interface Based Home Automation System for Paralyzed People”- Accepted in the Proceedings of IEEE RAICS, Trivandrum, India Dec 2018
31. T. Dash, A. Srinivasan, L. Vig, O.I. Orhobor, R. D. King, “Large-Scale Assessment of Deep Relational Machines”, In proc: 28th International Conference on Inductive Logic Programming (ILP 2018), September 2-4, 2018, Ferrara, Italy.
32. Alen K Sabu, Rituparna Ghosh and Biju Raveendran, SMILEY: A Mixed-Criticality Real-Time Task Scheduler for Multicore Systems, The 22nd IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications, Madrid, Spain, October 15-17, 2018 [Core B]
33. Santonu Sarkar, Gloria Vashi, and P. P. Abdulla. “Towards Transforming an Industrial Automation System from Monolithic to Microservices”. In: 23rd IEEE International Conference on Emerging Technologies and Factory Automation, ETFA 2018. IEEE, 2018, pp. 1256–1259. doi: 10.1109/ETFA.2018. 8502567.
34. Santonu Sarkar, P. Kandelwal, Soumyadip Bandyopadhyay, Holger Giese. “Analysis of GPGPU Programs for Data-race and Barrier Divergence”. In: 13th International Conference on Software Technologies. 2018.
35. Sreekrishnan Venkateswaran and Santonu Sarkar. “Modeling Operational Fairness of Hybrid Cloud Brokerage”. In: 18th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID). IEEE, 2018. doi: 10.1109/ccgrid.2018.00083.
36. Sreekrishnan Venkateswaran and Santonu Sarkar. “Best-fit Containerization as a Brokered Service”. In: IEEE Intl Conf on Parallel & Distributed Processing with Applications. 2018, pp. 940–947
37. Gargi Alavani, Kajal Varma, and Santonu Sarkar. “Predicting execution time of CUDA kernel using static analysis”. In: IEEE Intl Conf on Parallel & Distributed Processing with Applications. 2018, pp. 948–955.
38. Shubhangi K. Gawali, Mukund K. Deshmukh, “Energy Autonomy in IoT Technologies”, 5th International Conference on Power and Energy Systems Engineering, CPESE 2018, 19–21 September 2018, Nagoya, Japan.

**D. Posters: 2**

1. D. Jaisinghani, G. Singh, H. Fulara, M. Maity, and V. Naik. Elixir: Efficient Data Transfer in WiFi-based IoT nodes. Accepted as a Demo at The 24th Annual International Conference on Mobile Computing and Networking (MobiCom'18), Oct 29 - Nov 2, 2018, New Delhi, India
2. Aditya Asgaonkar, Pranav Palande, Ramprasad S Joshi: Is the Cost of Proof-of-Work Consensus Quasilinear? CODS-COMAD 2018, January 2018

**E. Patents:**

Prof. Ashwin Srinivasan is a co-inventor on the following patents with TCS Research. 26 filings of these have resulted in different geographies.

1. HYBRID BILSTM-SIAMESE NETWORK FOR FAQ CHATBOT
2. DEEPPREADER SYSTEM FOR INFORMATION EXTRACTION FROM IMAGES VIA CONVERSATIONAL INTERFACE AND DATABASE QUERYING
3. METHOD AND SYSTEM FOR CONTAINER LOADING SEQUENCE GENERATION USING REINFORCEMENT LEARNING (RL)
4. BILSTM-SIAMESE NETWORK BASED CLASSIFIER FOR IDENTIFYING TARGET CLASS OF QUERIES AND PROVIDING RESPONSES THEREOF
5. METHOD AND SYSTEM FOR EXTRACTING INFORMATION FROM HAND-MARKED INDUSTRIAL INSPECTION SHEETS
6. TRAINING INDUCTIVE LOGIC PROGRAMMING ENHANCED DEEP BELIEF NETWORK MODELS FOR DISCRETE OPTIMIZATION

**F. Books Published/Edited during the year: NIL****G. Book Chapters: NIL****H. Conferences, seminars & workshops conducted: 3**

1. 1st International workshop on Software Engineering aspects of cyber physical systems
2. Formal Methods Update Meeting
3. 73rd Meeting of IFIP Working Group 10.4 on Dependable Computing and Fault Tolerance, January 2018

**I. Invited Talks given by BITS Faculty: 4**

1. Santonu Sarkar: ABB Corp Research, NC USA, May 2018
2. Santonu Sarkar: IEEE CCEM Pre-conference workshop, March 2018
3. Santonu Sarkar: 2nd Symp on Applications of Formal Methods for Safety & Security of Critical Systems, Feb 2018
4. Sreejith V: Invited talk titled "Sensing without Sensors" at Dept of Computer Science & Engineering Department, Amrita college of Engineering and Technology, December 31, 2018, KK District, TN, India

**J. Invited talks arranged in the department:**

1. A series of student-focused talks on AI and ML by some of the best industrial researchers in the country:
  - I) Lovekesh Vig (TCS Research) on Deep Learning on 11-Jan-2018
  - II) Ramya Hebbalaguppe (TCS Research) on Augmented Reality on 11-Jan-2018
  - III) Indrajit Bhattacharya (TCS Research) on Probabilistic Models on 12-Jan-2018
  - IV) Vishnu Vardhan (Myntra Designs) on E-Commerce on 13-Jan-2018
  - V) Atul Kumar (IBM Research) on Adversarial ML on 13-Jan-2018
  - VI) Manik Varma (MSR) on Extreme Machine Learning on 15-Jan-2018
2. **Haimonti Dutta (University of New York at Buffalo)** Optimization Methods for Machine Learning (A part of the "Clever or Intelligent?" Series on AI and ML)

**K. Awards and recognitions won by faculty and students: 8**

1. Ms. Harsha Vasudev, Ph.D. Student working under the guidance of Dr. Debasis Das from the CSIS, BITS Pilani, Goa Campus, selected and participated as INDIAN DELEGATE in 3rd BRICS YOUNG SCIENTIST CONCLAVE which was held on 25 -29 June 2018, in Durban, South Africa.
2. Mr. Trupil Limbasiya, Ph.D. Student working under the guidance of Dr. Debasis Das from the CSIS, BITS Pilani, Goa campus selected and participated as Asiacrypt 2018( Core Ranking: Core A) Stipend Award( USD 900) in the 24th Annual International Conference on the Theory and Application of Cryptology and Information Security( Asiacrypt 2018) which was held on 2 Dec 2018 – 6 Dec 2018, Brisbane, Australia.
3. “Session Chair” (Track 2: Towards Smart City Services and Infrastructures Session ) in the IEEE The 15th IEEE International Conference on Ubiquitous Intelligence and Computing (IEEE UIC 2018) October 7-11, 2018, Guangzhou, China (Core Ranking: Core B).
4. “Session Chair” (E2: Vehicular Networks Session ) in the IEEE 32nd International Conference on Information Networking (ICOIN 2018) January 10-12, 2018, Chiang Mai, Thailand(Conference Ranking: B1).
5. Prof Neena Goveas has become a Senior Research Associate of the Abdus Salam International Center for Theoretical Physics (ICTP), Trieste, Italy. This appointment is for 6 years beginning from 2019.
6. Ms.Nipun Sood, an undergraduate CS&IS student received a student travel grant award of 600 AUD for presenting his paper in IEEE ITNAC, Australia. Nipus was working as a project student under the guidance of Dr.Sreejith in the area of wireless sensor networks
7. Mr. Tirtharaj Dash, Ashwin Srinivasan et al. won the Best Research Paper Award under student category from Springer’s Machine Learning Journal in the 28th International Conference on Inductive Logic Programming (ILP-2018) (Award: Certificate and USD 750).
8. Mr.Tirtharaj Dash won the a Travel Grant of 800 EURO from The European Association for Artificial Intelligence (EurAI) to attend Summer School on Statistical Relational AI (ACAI) and ILP-2018, Ferrara, Italy during August 27-31, 2018.

**L. Faculty Development, International Collaboration & Industry Immersion: 4**

1. Prof. Neena Goveas visited the Data Energy Cyber and Systems (DECS) Laboratory, College of Engineering & Mines, University of North Dakota as part of the Institute Immersion program. Collaboration with Dr. Prakash Ranganathan, Director for Cyber Security Programs, and Data Energy Cyber and Systems (DECS) Laboratory at the University of North Dakota (UND).
2. Prof. Santonu Sarkar: Currently visiting ABB Corp. Research Lab as a Research Consultant from Jan 2018
3. Prof. Ashwin Srinivasan: Visiting Professorial Fellow, School of CSE, University of NSW, Sydney, Australia
4. Prof. Ashwin Srinivasan : TCS Innovation Labs, Research Advisor

**M. Significant new equipments/experimental facility added during the year: 1**

1. Bought 10 nos. Turtle Bot Robots for AI teaching and research
2. Eleven SDN switches and Two SDN Wireless Access point

**N. Departmental association/club activities: 1**

1. Conducted two open-showcases dated 26th April & 27th Nov where SDPD & Pervasive students presented their work (which was done under the guidance of Dr. Sreejith V

**B2.10. 5 Department: Economics**

Number of faculty members (as on 31 December 2018): 09

<b>Senior Professors, Professors</b>	<b>00</b>
<b>Associate Professors</b>	<b>03</b>
<b>Assistant Professors, Gr-I</b>	<b>04</b>
<b>Assistant Professors, Gr-II</b>	<b>00</b>
<b>Visiting Assistant Professors</b>	<b>01</b>
<b>Visiting Faculty</b>	<b>01</b>

Head of the Department: Prof. Aswini Kumar Mishra  
 Contact details: 0832-2580-258  
[aswini@goa.bits-pilani.ac.in](mailto:aswini@goa.bits-pilani.ac.in)

Number of PhD Scholars: 19

Ph.D. Thesis Awarded during the year: One

1. **Ms. Preeti E Ramanathan** (ID No. 2013PHXF007G), defended her Ph.D thesis titled "FINANCIAL STRATEGIES OF SOCIAL ENTERPRISES: A CASE BASED ANALYSIS". She worked under the supervision of **Prof. Aswini Kumar Mishra**.

**A. Sponsored Research/Consultancy activities:**

- I. **Ongoing projects** : Nil
- II. **Projects completed this year** : Nil
- III. **Projects approved during the year** : Nil
- IV. **Consultancy (No. 1)** : Debasis Patnaik was Convenor and Resource Person (Rs1.97lakhs) Rural Saving Habits of India and Rural Insurance' for PNB Metllfe Executives on June 10, 2018.

**B.1. Publications in Journals (No. 20)**

- 1 Prasad, Ch.V.V.S.N.V., and Prabhdesai, R (2018): "An Empirical Study on TQM Practices and its Influences on Employee Satisfaction and Performance in Technical Institutions-Teachers' Perspectives", Journal of Management and Marketing Review, Vol.3:3, 169-178.
- 2 Prasad, Ch.V.V.S.N.V (2018): "Availability of Information and Communication Technology (ICT) Facilities in Secondary Schools", Journal of Emerging Technologies and Innovative Research, Vol.5:8, 588-593– UGC Approved
- 3 Prabhdesai, R. and Prasad, Ch.V.V.S.N.V, (2018): "What drives trust-performance relationship in SME alliances?" International Journal of Business and Globalisation, Vol.20:3, 316-327. – Scopus Indexed
- 4 Prabhdesai, R. and Prasad, Ch.V.V.S.N.V, (2018): "Understanding the international strategic alliances of SMEs: A case-study approach", International Journal of Entrepreneurship and Small Business, Vol.35:1, 102-125. – Scopus Indexed
- 5 Prabhdesai, R. and Prasad, Ch.V.V.S.N.V, (2018): "Analyzing the impact of perceived environmental uncertainty on SME alliance formation: An Indian perspective" International Journal of Global Business and Competitiveness, Vol.12:1, 37-43. – ABDC Indexed
- 6 Prasad, Ch.V.V.S.N.V, & Prabhdesai, R., (2018): "What drives SME explorative-exploitative alliance formation: An integrated perspective", International Journal of Business Innovation and Research, Vol.15:1, 79-98. – Scopus Indexed
- 7 Debasis Patnaik and Venkat Yaji (2018) Assessing Tax Elasticity of Governmental Expenditure in India 2018 in IJEMR.



- 8 Debasis Patnaik and Ram Charan (2018): "Analysis of Indian stock market", Journal of Accounting and Finance , FDA, Jaipur, Vol 32, 3-15 (UGC Indexed)
- 9 Saurav Jain, D Patnaik, R Gopal and Vani K. (2018): "Security Aspects in the Block Chain" Research Review International Journal of Multidisciplinary Research, ISSN: 2455-3085, Vol. 3:10, pp- 963-969 (UGC Listed Journal).
- 10 Rijul Arora, Debasis Patnaik and Ram Menon (2018): "A Study of the Impact of Introduction of GST on Consumers and Producers in the Pharmaceutical, Demerit and Financial Services Sector in India", An International Multidisciplinary Quarterly Research Journal, ISSN 2277-5730, Vol. VII-Issue-II-Part-1, pp.46-56. UGC (40776) Indexed.
- 11 Patil Siddhant and Debasis Patnaik (2018): "Asset Allocation Strategies in Taiwan and India using Analytical Hierarchy Process", An International Multidisciplinary Quarterly Research Journal, ISSN 2277-5730, and Vol.3:2, 29-37. UGC (40776) Indexed.
- 12 Riyanka Swain and Debasis Patnaik (2018): "Assessment of Corporate Governance Practices in Selected Cooperative Banks in Odisha", An International Multidisciplinary Quarterly Research Journal, ISSN 2277-5730, Vol.3:2, PP (141-148). UGC(40776) Indexed
- 13 D Patnaik and Abhijeet Selvi (2018): "Valuation Testing Post- Mergers and Acquisition scenario in Indian companies", Journal of Commerce and Social science, Vol 4 No-1., pp. (11-22).
- 14 Ritika Jaiswal & Rashmi Uchil (2018): "An Analysis of Gold Futures as an Alternative Asset: Evidence from India", International Journal of Economics and Financial Issues, Vol. 8:6, 144-150 (ABDC-Indexed)
- 15 Sassi F, Belloni A, Mirelman A, Suhrcke M, Thomas A, Salti N, Vellakkal S, Visaruthvong C, Popkin BM, Nugent R (2018): "Equity impacts of price policies to promote healthy behaviours." The Lancet, Vol. 391:10134, 19–25. Scopus Indexed, SCI Impact Factor 47.831
- 16 A Gupta, J Fledderjohann, H Reddy, VR Raman, D Stuckler, S Vellakkal (2018): "Barriers and prospects of India's conditional cash transfer program to promote institutional delivery care: a qualitative analysis of the supply-side perspectives." BMC Health Services Research 18:1, 40. Scopus Indexed, SCI Impact Factor 2.558
- 17 A.K. Mishra, Anil Kumar and Abhishek Sinha (2018)'Income Distributions and the Intensity, Shape & Decomposition of Change in Income Inequality in India: 2005-2012' accepted for publication in Journal of Economic Studies, Emerald Group Publishing Ltd.(An Emerging Sources Citation Index (ESCI) & SCOPUS Indexed Journal).
- 18 A.K. Mishra (2018) 'Household Income Inequality and Income Mobility: Implications towards Equalizing Longer-term Incomes in India' in International Economic Journal, (A SCOPUS Indexed Journal), Volume 32:2, 271-290.
- 19 A.K. Mishra, Anil Kumar, (2018) "What lies behind income inequality and income mobility in India? Implications and the way forward", International Journal of Social Economics, Volume 45:9, 1369-1384. (An Emerging Sources Citation Index (ESCI) & SCOPUS Indexed Journal)
- 20 R. Sen Gupta (2018) Risk Management and Intellectual Property Protection in Outsourcing, Global Business Review, Volume 19:2, pp.393–406 (Scopus Indexed)

### **B.2. Books Published/Edited/Chapters in Books (No. 1):**

K. Mishra, V Arunachalam & D Patnaik (eds.)(2018) "Current Issues in the Economy and Finance of India-ICEF 2018", Springer Proceedings in Business and Economics. Springer, Cham. ISBN 978-3-319-99554-0

### **B.3. Conference Proceedings (Full-length Paper only) (No. 12):**

- 1 Sudatta Banerjee, Saumen Chakraborty and Debasis Patnaik (2018): "Human Capital Spread across States in India" 12th World Congress on Regional Science, 29 May -1 June 2018 at BITS Goa.
- 2 Riyanka Swain and Debasis Patnaik (2018): "Governance of Central Banks Across the World", 12th World Congress on Regional Science from 29 May -1 June 2018 at BITS Goa.
- 3 Vedant Agarwal, Debasis Patnaik and David (2018): "Current Status of Niger, Nigeria, Togo, Ghana in African Development: An Econometric Exercise Context", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 4 Sudhir and D Patnaik (2018): "Country Risk Issues", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 5 Tamanna Pahooja, Debasis Patnaik and Bhuvan Gupta (2018): Behavioral Finance paper", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.

- 6 Babitha Viswanath and Debasis Patnaik (2018): "CSR and Indian Government: An Empirical Perspective", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 7 Parashram Patil and Debasis Patnaik (2018): "Forest accounting; Kohlapur district in India", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 8 Dona Ganguly and Debasis Patnaik (2018): "Insurgency in the North East of India", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 9 Ritika Jaiswal & Rashmi Uchil (2018): "Nonlinear Approach to analyze the Inflation Hedging Potential of Commodity Futures: An Indian Perspective", 8th India Finance Conference at the Indian Institute of Management, Calcutta (IIMC) jointly Organised by IIMC, IIMB and IIMA, during December 20-22, 2018.
- 10 Arfat Ahmad Sofi and Subash S. (2018): "FDI, Labour Market and Welfare: How Inequality Navigate Welfare Loss?" 13th Annual Conference of Forum for Global Knowledge Sharing (FGKS), at Tata Institute of Social Sciences, Mumbai, during November 16 – 18, 2018.
- 11 Vellakkal S (2018): "A quasi-experimental case study of estimating the effects of program design and implementation aspects on program outcomes in National Health Mission." 12th RSAI World Congress, May 29 - June 01, 2018, Goa, India.
- 12 R. Sen Gupta (2018): "Sustainable Development in Conflict Prone Regions through "Purchase for Progress" Contracts." 25th EBES CONFERENCE - BERLIN PROCEEDINGS, MAY 23-25, 2018, Berlin

### C. Presentations in Seminar/Conference/Workshop (No. 23):

- 1 Prasad, Ch.V.V.S.N.V ,& Prabhdesai, R., (2018): "An Empirical Study on TQM Practices and its Influences on Employee Satisfaction and Performance in Technical Institutions-Teachers' Perspectives", 7th Global Conference on Business and Social Sciences 2018 at Cinnamon Grand Hotel, Colombo, Sri Lanka, during August 20-21, 2018.
- 2 Prabhdesai, R., Prasad, Ch.V.V.S.N.V (2018): "Determining the Impact of Entrepreneurial Orientation on SME Alliance Formation, International Conference of Entrepreneurship and Family Business, at IIT Mumbai, during January 08-10, 2018.
- 3 Saha, P., "Requirement of Standardization of mHealth in India", 4th WHO Global Forum on Medical Devices, at Vishkhapatnam, India, during December 13-15, 2018.
- 4 Saha, P (2018): "Knowledge discovery based interactive decision support system for identifying associations among childhood healthcare interventions and health system building blocks", Proceedings of 12th World Congress of the RSAI (ISBN: 978-989-54216-0-2) at BITS Goa, India, during 29 May -1 June 2018.
- 5 Debasis Patnaik - Keynote Address (2018) on Ecological Imbalances and Its Impact on the Economy, National Conference at College of Arts and Commerce, Gadag, Karnataka on October 6 2018.
- 6 Debasis Patnaik and Ronit Datta (2018): "Pollution in Goa With Special Focus on Mining" Sixth International Conference on Advances in Bio-Informatics, Bio-Technology and Environmental Engineering – ABBE" at Hotel Novotel, Zurich City-West, Zurich, Switzerland, during 28–29 April, 2018.
- 7 Debasis Patnaik (2018): "Preference formation for Effective Economic Decision Making at Grassroots" 2nd International Conference on Science, Technology and Management (ICSTM-2018) at ICSSR Building-Chandigarh University venue on 16th September 2018.
- 8 Debasis Patnaik and Shubhransh Jagota (2018): "Measuring the Impact of various factors on crop Yield in Himachal Pradesh with special reference to Fertilizer Use", Indian Economic Association, at Vellore Institute of Technology, during December 27-29, 2018.
- 9 Shashi, L Yadav., Shetty, S.and Patnaik, D. (2018): "Economic character of data gaps in the illness studies of Dementia", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 10 Shah.,V., James.,R., Deshmukh.,A., Yeligar., V., and Patnaik, Debasis. (2018): "Development and growth drivers in Latin American countries- Violence impacts employment and HDI– Possible way out through Agricultural Transformation", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 11 Botchway. D., and Patnaik, Debasis. (2018): "Assessment of growth Factors in African growth story: An Input Output Analysis, 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 12 Banerjee.S., Bhattacharjee. S., and Patnaik, Debasis. (2018): "Effect of Quality Composition of Human Capital on Economic Growth. A study of the Indian states", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.

- 13 Shashi L Yadav, Debasis Patnaik, Babu Aiholi (2018): "Factors Influencing HIV/AIDS and Regional Pattern of Financing", 12th World Congress on Regional Science at BITS Goa, during 29 May -1 June 2018.
- 14 Debasis Patnaik, Vibha Sharma and Anitha Mannem (2018): "Water Resources and Sectoral Water Utilization in Trans Himalayan Rivers", National Conference on Trends in Indian Economy: Problems and Prospects, at ( Kadappa-Yogi Vemana University, Social Science Block Conference venue) during 14-15 October 2018.
- 15 Debasis Patnaik Invited and lecture delivered Lectures on 'Industrialization Processes in India' and 'Research trends in Social Sciences and Beyond' at Kadapa University, Andhra Pradesh during 22-23, December, 2018,
- 16 Rijul Arora, Debasis Patnaik and Ram Menon (2018): "A Study of the Impact of Introduction of GST on Consumers and Producers in the Pharmaceutical, Demerit and Financial Services Sector in India", Two day International Conference on Emerging Management Issues and Challenges at Rosary College of Commerce and Arts- Navelim, Salcete, Goa, during 6-7April 2018.
- 17 Patil Siddhant and Debasis Patnaik (2018): "Asset Allocation Strategies in Taiwan and India using Analytical Hierarchy Process", two day International Conference on Emerging Management Issues and Challenges at Rosary College of Commerce and Arts- Navelim, Salcete, Goa, during 6-7 April 2018.
- 18 Riyanka Swain and Debasis Patnaik (2018): Assessment of Corporate Governance Practices in Selected Cooperative Banks in Odisha", two day international conference on Emerging Management Issues and Challenges at Rosary college of commerce and arts- Navelim, Salcete, Goa, during 6-7 April 2018
- 19 Debasis Patnaik and Mavis Henriques (2018): "Psychological Stress and Productivity in Aviation Sector", International Conference on Economics and Finance (ICEF) at Department of Economics, BITS Pilani K.K. Birla Goa Campus during February 16-17 2018.
- 20 Debasis Patnaik and Sandra D Sa (2019): "Developing Benchmarks for approaches to Industrial Waste water pollution prevention", International Conference on Economics and Finance (ICEF) at Department of Economics BITS Pilani K.K. Birla Goa Campus, during February 16-17 2018.
- 21 Arfat Ahmad Sofi and Subash S. "FDI, Labour Market and Welfare: How Inequality Navigate Welfare Loss?" 16th International Convention of the East Asian Economic Association, at National Taiwan University, Taipei, during 27 - 28 October, 2018.
- 22 A K Mishra, Abhijit Khasnis, Sai Theja V. and Abhishek Sinha (2018): "Understanding Firm-Level Innovation and Productivity in India", International Conference on Economics and Finance (ICEF) at Department of Economics, BITS Pilani K.K. Birla Goa Campus during February 16-17 2018.
- 23 A K Mishra and Vedant Bharadwaj (2018): "Why Wealth Inequality Matters? Evidence From India", at 12TH WORLD CONGRESS OF THE RSAI organised by the Regional Science Association International in association with the Regional Science Association of India and held at BITS Pilani K.K. Birla Goa Campus during 29 May – 1 June, 2018.

#### **D. Talks/Seminar/Conference Organized by the Department (No.6):**

- 1 "International Conference on Economics and Finance (ICEF-2018)" was organized by the Department of economic, BITS-Pilani, K. K. Birla Goa campus in association with Indian Council of Social Science Research on 16-17 February 2018. Principal convener of the conference was Prof. Aswini Kumar Mishra.
- 2 Department of Economics, BITS-Pilani, K. K. Birla Goa campus acted as academic partner for "2nd International Conference on Economics and Development 2018" held on the 20th – 21st June, 2018 in Colombo, Sri Lanka.
- 3 12th World congress of the RSAI was organized at BITS-Pilani, K. K. Birla Goa campus by Department of Economics. Dr. Debasis Patnaik was joint convener of the congress.
- 4 Prof. Krishnaswami Srihari, Dean - Thomas J. Watson School of Engineering and Applied Science, SUNY Distinguished Professor and Director - Watson Institute for Systems Excellence, Binghamton University, Binghamton, New York, provided a talk to discuss career opportunities and explore collaborative academic partnerships, particularly in STEM disciplines on 3rd October, 2018.
- 5 Three days workshop on "Applied Time Series and Panel Data Econometrics" was organized by Department of Economics on 19-21 October, 2018.
- 6 Debasis Patnaik (2018): Lecture delivered on "Technical Analysis in Stock Market" by Prof. Babu Aiholi from Department of Economics, Goa University, on November 7 2018.

#### **E. Significant new equipment / experimental facility added during the year:**

- 1 Purchase of software-SPSS Modeler 18.2 Version

**F. Awards and recognitions won by faculty and student (No. 10):**

- 1 Best Paper Award was conferred to Prabhdesai, R., Dr.Prasad, Ch.V.V.S.N.V for a paper entitled "Determining the Impact of Entrepreneurial Orientation on SME Alliance Formation," presented at International Conference of Entrepreneurship and Family Business, IIT Bombay, January 08-10, 2018.
- 2 Prof. Debasis Patnaik has served as a Member, Scientific Committee, 2nd International Conference, ICED, TIIKM, Colombo Sri Lanka and was Conferred Certificate for Outstanding Reviewer Award in June 2018.
- 3 Prof. Debasis Patnaik has been Conferred with The Bharat Jyoti Puraskar 2018 by the Best Citizen Publishing House in March 2018.
- 4 Prof. Debasis Patnaik served as the Chairman of Technical Session on Ecological Imbalances and Bio-Diversity and Role of Youth in the National Conference on 'Ecological Imbalances in India' in College of Arts and Commerce, Gadag, Karnataka on October 6, 2018.
- 5 Dr Sukumar Vellakkal has been appointed as Academic Editor of the journal PLOS ONE (an international journal indexed in Scopus and Web of Science with SCI Impact Factor of 2.766), published by the Public Library of Science, the USA.
- 6 Dr Sukumar Vellakkal has been appointed as the member of the scientific committee for for the forthcoming (July 2019) World Congress of the International Health Economics Association (iHEA) in Basel (Switzerland).
- 7 Dr Sukumar Vellakkal has served as a Member, Scientific Committee, 2nd International Conference, ICED, TIIKM, Colombo Sri Lanka
- 8 Prof. Rajorshi Sen Gupta served as Member of Scientific Committee, 2nd International Conference, ICED, The International Institute of Knowledge Management TIIKM, Colombo Sri Lanka.
- 9 Prof. Aswini Kumar Mishra served as Member of Scientific Committee, 2nd International Conference, ICED, The International Institute of Knowledge Management TIIKM, Colombo Sri Lanka.
- 10 Prof. Aswini Kumar Mishra has been appointed as an Associate Editor of International Journal of Rural Management, A Prof. Sage publication in association with Institute of Rural Management Anand (A SCOPUS Indexed Journal)

**G. Any other information:**

- 1 Prof. Debasis Patnaik (2018): Chairman of Two Special Sessions on Issues of Regional Growth and Development where 6 papers were presented.
- 2 Prof. Debasis Patnaik served as chairman of Postal Panel Presentations (30th May) in 12th World Congress on Regional Science at BITS Pilani, K K Birla Goa Campus, during 29 May -1 June 2018.
- 3 Prof. Debasis Patnaik served as chairman for Workshop Session on Relationship of Anthropology with Other Social Sciences at Santa Catarina University at the World Congress of the International Union of Anthropological and Ethnological Sciences held in Florianopolis, Brazil on 18 July, 2018.
- 4 Prof. Debasis Patnaik participated in a two day National Seminar in Goa University hosted by Department of Economics, Goa University on 70th and 71st Round NSSO Surveys Results and Discussion on Situation assessment Survey on Agricultural Households, Land and Livestock Holdings and Debt & Investment (70th Round) and Social Consumption on Health and Education (71st round) during 11 - 12 Sept 2017.
- 5 Prof. Debasis Patnaik was invited by Indian Medical Council Goa Chapter to deliver a lecture on Health care Issues at HQ Hotel, Vasco Goa.
- 6 Prof. Debasis Patnaik was invited by Sun Pharma for two days workshop to teach Probit and Logit Models: Theorization and Applications in Gurgaon, Delhi-UP in November 2017.
- 7 Prof. Debasis Patnaik talked and Initiated Panel Discussions on 'Reactions' in J Krishnamurti in KFI, Cuttack during 24th Dec 2017
- 8 Prof. Debasis Patnaik delivered a talk on Theosophy-Hierarchy, Organization and Individual in The Theosophical Society, Cuttack on 25th December 2017.
- 9 Prof. Debasis Patnaik has been elected as a Member, Editorial Board for the Journal of Modern Management Forum, Universe Scientific Publishing House, Kuala Lumpur.(from 10-10-2017).
- 10 Prof. Debasis Patnaik has been Invited as Subject Expert by Chairman, Goa Public Service Commission on 7 November 2017 to Interview Candidates for Post of Assistant Professor in Economics in Government College of Goa State.
- 11 Prof. Debasis Patnaik Paper Reviewer (November 2017) for Amsterdam Journal 'Regional Science, Policy and Practice.

- 12 Prof. Debasis Patnaik has Participated in Neutral Fest, Goa in a Lecture by Dr Prakash Baba Amte Ambedkar on 17 November 2017 at Taj Vivanta hosted by Director- Shri Uttam Kumar ; Editor Shri Rupeshji.
- 13 Prof. Debasis Patnaik Participated in a Talk organized by Goa Institute of Management: Seminar on the Effects of Demonetization on Business & the Economy: Tango Hall, Taj Vivanta, Panjim, Goa on 28th November 2017
- 14 Prof. Debasis Patnaik Delivered a Series of Six Lectures on 'Industrialization of Indian Economy' to Japanese Students in Goa University, at Department of Economics during 6 - 11 December 2017.
- 15 Prof. Debasis Patnaik has been felicitated by the Department of Economics, Kadapa University, Andhra Pradesh.
- 16 Prof. Debasis Patnaik Participated in a Workshop by Public Health Association at Kochi, at Hotel La Meridian on 17 Feb 2018.
- 17 Prof. Debasis Patnaik Invited by CII, New Delhi for Workshop on Jobs and Occupations on 15 Feb 2018.
- 18 Prof. Debasis Patnaik Invited as Chief Guest and Speaker of Valedictory Session for Research Event "ANUSANDHAN-II" at Narayan Zantye College of Commerce, Bicholim. Delivered a lecture on Research Trends in Commerce on 24 Feb 2018.
- 19 Prof. Debasis Patnaik Invited as Subject Expert for Economics by NIT Goa on 17 April 2018 for Curriculum Redesign and Examination Question Pattern Evaluation Exercise.
- 20 Prof. Debasis Patnaik Participated in a Seminar on 'Food and Environment' by Prof Mart in ICG, Goa on 28 April 2018.
- 21 Prof. Debasis Patnaik has been selected as a Member, IUAES Committee for Children, Youth and Childhood from 2018.
- 22 Prof. Debasis Patnaik serves as Examiner for Seed Money Research Grant Proposal Titled 'Effect of Intellectual Property Rights (IPR) on Technological Progress (TP): A case of Developing Countries with special reference to India' for NIT Goa Faculty
- 23 Prof. Debasis Patnaik Reviewed a paper on "Behavior of Individual Investor in Indian Stock Markets for InderScience Publications International: Journal of Behavioral Accounting and Finance (IJBAF) on June 15 2018.
- 24 Prof. Debasis Patnaik Contributions in Masonic Activity in Hyderabad Lodge during June 16-17, 2018
- 25 Prof. Debasis Patnaik participated in Workshop on Faecal Sludge and Septage Management (FSSM) organized at Hotel Fortune Landmark, Ahmedabad, Gujarat by CEPT University, Ahmedabad and Indian Institute of Urban Affairs, GOI during 6 – 7 March 2018.
- 26 Prof. Debasis Patnaik Local Convenor, Member of Scientific Committee and Member Advisory Group for World Conference on Regional Science in May 29 - June1 2018 thematically titled as 'Spatial Systems: Social Integration, Regional Development and Sustainability' with Indian Regional Science Association (IRSA) as Co Organizer along with Regional Science Association International (RSAI).

**B2.10.6 Department: EEE****Department: Electrical & Electronics Engineering**

Number of faculty members (as on 31 December 2018): 24

<b>Senior Professors, Professors</b>	4
<b>Associate Professors</b>	4
<b>Assistant Professors, Gr-I</b>	11
<b>Assistant Professors, Gr-II</b>	2
<b>Visiting Faculty</b>	3

**Head of the Department:** Prof. A. Amalin Prince**Contact details:** hod.eee@goa.bits-pilani.ac.in**Number of PhD Scholars:** 25 (02 Lecturers +16 Full time students + 07 Part Time)**Ph.D. Thesis Submitted during the year:**

<b>Name</b>	<b>ID No</b>	<b>Thesis Title</b>
Praveen G.B	2012PHXP404G	Development of an intelligent system for analyzing brain disorders
Rajyalekshmi Kishore	2012PHXP401G	Performance Analysis of Energy Efficient Spectrum Sensing Techniques in Cognitive Radio Networks

**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department. Details are given below:

**(i) Ongoing projects: 04**

<b>Sr. No</b>	<b>Project Name</b>	<b>Principal Investigator</b>	<b>Funding Agency</b>	<b>Sanctioned Amount</b>	<b>Duration</b>	
					<b>From (Month/Year)</b>	<b>To (Month/Year)</b>
1	Development of SDR Based GNSS Receiver	Dr.Nitin Sharma(PI)	ISRO	33 Lakhs	Jan 2017	June 2019
2	Development of Remotely Configurable Arbitrary Ramp Generator for FMCW Reflectometry	Prof.A Amalin Prince(Co-PI) (Interdisciplinary)	BRNS	28.025 Lakhs	Jan 2017	Dec 2018
3	Development of sensing system for residual pesticide and harmful chemical detection in fruits and vegetables	Dr.GautamBacher (Co-PI) (Interdisciplinary)	R.D Tata Trust	53.5 lakhs	Aug 2016	Oct 2018
4	Development of PCDA-liposome based detection kit for Alzheimer's disease biomarker	Prof.Ramesha C K( Co-PI) (Interdisciplinary)	DST	26,63,200	March 2017	Feb 2020

**(ii) Projects approved/sanctioned during the year: 1**

<b>S.No</b>	<b>Project Name</b>	<b>Principal Investigator</b>	<b>Funding Agency</b>	<b>Sanctioned Amount</b>	<b>Duration</b>	
					<b>From (Month/Year)</b>	<b>To (Month/Year)</b>
1	MPSoC Based Automated Digital Signal Processing System for	Prof.A Amalin Prince(PI)	BRNS, DAE	35 Lakhs	Nov 2018	Oct 2021

	Tokamak Reflectometry					
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**(iii) Projects completed this year: 04**

S.NO	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration	
					From (Month/Year)	To (Month/Year)
1	Pilot Implementation of Wireless Sensor Network for Process Monitoring on Gas Pipeline	Prof.K.R.Anupama (PI) (Interdisciplinary)	GAIL	98.18 Lakhs	March 2015	Nov 2018
2	Analytics Sensor Test-Kit for Advanced Process Control.	Dr.Nitin Sharma(Co-PI) (Interdisciplinary)	Bill and Melinda Gates Foundation	115 lakhs	Jan 2017	May 2018
3	FPGA Based Fuzzy Logic Picomotor Controller for Laser Beam Pointing Stability Correction	Prof. A Amalin Prince (PI)	BRNS, DAE	24.46 Lakh	April 2016	March 2018
4	Development of field portable device for the analysis of contaminant in water	Dr.Gautam Bacher (Co-PI) (Interdisciplinary)	BRNS, DAE	24.138 lakh	Jan 2015	Oct 2018

**B. Publications:(Journals). 18**

1. Athokpam BS, Deshmukh, "MK Operational Testing of Rooftop SA-SPV System in Coastal Tropical climate of India. Energy for Sustainable Development", 47:17-22, 2018.
2. Nalband S, Valliappan CA, Prince A A, Agrawal A "Time-frequency based feature extraction for the analysis of vibroarthographic signals", Computers & Electrical Engineering, 69:720-731, 2018.
3. Nalband S, Prince A A, Agrawal, "A Entropy-based feature extraction and classification of vibroarthographic signal using complete ensemble empirical mode decomposition with adaptive noise", IET Science, Measurement & Technology 12 (3):350-359, 2018.
4. Singh AC, Asif MH, Bacher G, Danielsson B, Willander M, Bhand S (2019) Nanoimmunosensor based on ZnO nanorods for ultrasensitive detection of 17 $\beta$ -Estradiol. Biosensors and Bioelectronics 126:15-22. doi:<https://doi.org/10.1016/j.bios.2018.10.004>
5. Nitin Sharma, Souryendu Das, "Social fairness and channel loading effects in peer-to-peer connected networks", Peer-to-Peer Netw. Appl. May 2018, Volume 11, Issue 3, pp 450–461
6. Praveen G. B, Anita Agrawal, Shrey Pareek and Amalin Prince, "Brain abnormality detection using template matching", Bio-Algorithms and Med-Systems, Vol 14, issue 4, pp. 1-10, 2018.
7. A. Srinivasulu, G. Sravanthi, M. Sarada, and Dipankar Pal, "FinFET-based Miller encoder for UHF and SHF RFID application." International Journal of Electronics 105(1): 104-115, 2018.
8. M. Sarada, A. Srinivasulu & Dipankar Pal, "Novel, low-supply, differential XOR/ XNOR with rail-to-rail swing, for hamming-code generation", International Journal of Electronics Letters, Vol. 6, Issue 3, pp. 272-287, 2018
9. P. Vijaya Lakshmi, S. Musala, A Srinivasulu & Dipankar Pal, "Three novel single-stage full swing 3-input XOR", Accepted in International Journal of Electronics.
10. Alope Saha & Dipankar Pal, "DPL-based novel binary-to-ternary converter on CMOS technology", Int. J. Electron. Commun. (AEÜ), Elsevier, Vol. 92, pp. 69–73, 2018
11. Alope Saha, Rahul Pal, Akhilesh G. Naik & Dipankar Pal, "Novel CMOS Multi-bit Counter for Speed- Power Optimization in Multiplier Design", Int. J. Electron. Commun. (AEÜ), Elsevier, Vol. 95, pp. 189–198, 2018.
12. Singh P, Reniwal BS, Vijayvargiya V, Sharma V, Vishvakarma SK "Ultra low power-high stability, positive feedback controlled (PFC) 10T SRAM cell for look up table (LUT) design", Integration 62:1-13, 2018.
13. Reniwal BS, Vijayvargiya V, Singh P, Yadav NK, Vishvakarma SK, Dwivedi D An Auto-Calibrated Sense Amplifier with Offset Prediction Approach for Energy-Efficient SRAM. Circuits, Systems, and Signal Processing. (2018) doi:10.1007/s00034-018-0934-1

14. Shenoy MV, K.R Anupama “ Swarm-Sync: A distributed global time synchronization framework for swarm robotic systems”, *Pervasive and Mobile Computing*, 44:1-30, 2018.
15. Robert F., Prince A.A., Anita A. and Shibu C., (2018) ‘Modeling and Analysis of Scalable Arcless Micromechanical Switch for Battery Powered Electrical System’, *Journal of Micro Nano systems*, 10 (1):23-34, 2018
16. S. Baudha and D. K. Vishwakarma, “A Compact Broadband Printed Circular Slot Antenna with Stair Shaped Ground Plane,” *Progress in Electromagnetics Research Letters*, 74(2018), pp. 9–16.
17. Bharatbushan Singh Athokpam, M.K. Deshmukh, Operational Testing of Rooftop SA-SPV System in Coastal Tropical climate of India”, *Energy for Sustainable Development* 47 (2018) 17–22
18. G.B. Praveen, Anita Agrawal, Ponraj Sundaram, Sanjay Sardesai, "Ischemic stroke lesion segmentation using stacked sparse autoencoder", *Computers in Biology and Medicine*, vol. 99, pp. 38-52, 2018.

**C. Conferences attended/Papers presented/Papers published: 22**

1. Gibin C.G., Sriyash C., Abhishek M., and Prince, A. A., Efficient Architecture for Implementation of Hermite Interpolation on FPGA”, 12th IEEE Conference on Design and Architectures for Signal and Image Processing, (DASIP2018), October 10-12, 2018, Porto, Portugal, IEEE.
2. M. K. Deshmukh, Athokpam Bharatbushan Singh, Modeling of Energy Performance of Stand-Alone SPV System Using HOMER Pro, 2018 5th International Conference on Power and Energy Systems Engineering, CPESE 2018, 19–21 September 2018, Nagoya, Japan, *Energy Procedia* (2018)
3. Suparno Pal & Dipankar Pal, “Modified Time-Based Current Mode ADC” IEEE TENCON 2018, Jeju, Republic of South Korea, 28-31 October 2018 .
4. A. Bhargav, A. Srinivasulu, & Dipankar Pal, “An Operational Transconductance Amplifiers Based Sinusoidal Oscillator Using CNTFETs”, 23<sup>rd</sup> International Conference on Applied Electronics, University of West Bohemia, Pilsen, Czech Republic, 11-12 September 2018
5. Akhilesh G. Naik & Dipankar Pal, “Delay Estimation, Chip-Power Analyses and Comparison of Single-Level and Multi-Level Recursive Vedic Algorithm with Conventional Algorithms for Digital Multiplier”, International Conference on IC Design & Technology, Otranto, Italy, June 4 - 6, 2018
6. Akhilesh G. Naik & Dipankar Pal, “Analytical Comparison of Conventional Algorithms with Vedic Algorithm for Digital Multiplier”, Int. Conference on Education, World Academy of Science, Engineering & Technology (WASET), Prague, Czech Republic, March 22-23, 2018
7. Sudeep Baudha and Tapesh Bhandari, “An UWB Compact Microstrip Antenna for S Band, C Band and X Band Applications,” 12th European Conference on Antennas and Propagation (EuCAP 2018), London (United Kingdom) April 9-13, 2018.
8. Athokpam Bharatbushan Singh, M. K. Deshmukh, “Enhancement of Performance of Roof-mounted SPV System”, 2018 5th International Conference on Power and Energy Systems Engineering, CPESE 2018, 19–21 September 2018, Nagoya, Japan, *Energy Procedia* (2018)
9. Shubhangi K. Gawalia,, Mukund K. Deshmukh, Energy Autonomy in IoT Technologies, 2018 5th International Conference on Power and Energy Systems Engineering, CPESE 2018, 19–21 September 2018, Nagoya, Japan, *Energy Procedia* (2018)
10. Sudeep Baudha and Vishal Asnani, “Dual band Microstrip patch antenna with secondary patch,” 7th IEEE International Conference on Communication and Signal Processing (ICCSP 2018), Melmaruvathur (India) April 3-5, 2018.
11. Shruti Joshi, Sanket Deshpande and Sudeep Baudha, “Dual Band Antenna For Portable Consumer Devices,” 12th European Conference on Antennas and Propagation (EuCAP 2018), London (United Kingdom) April 9-13, 2018.
12. Shashidhara Mecha Kotian and K. N. Shubhanga, “Analytical Design of Static VAR Compensator-Based Subsynchronous Damping Controller,” Proc. of IEEE International Conference on Power, Instrumentation, Computing & Control (PICC 2018), Trichur, India, January 2018
13. Hrishikesh S. Sonalikar, “Temperature Dependent EM Investigation of Inhomogeneous Dielectric Wall for Application in Ablatable Radome”, Indian Conference on Antennas and Propagation (InCap), 16-19 December 2018, Hyderabad, India.
14. Joshi, A., Dhongdi, S., & Anupama, K. R., “Joint clustering and routing protocol for static 3D wireless sensor networks” In 2018 International Conference on Information Networking (ICOIN) (pp. 368-373). IEEE., (2018, January).



15. Dhongdi, Sarang, Aashray Bhandari, Jayati Singh, Spandan Kachhadia, and Varad Joshi. "Joint Clustering and Routing Protocol for 3-D Underwater Acoustic Sensor Network." In 2018 Tenth International Conference on Ubiquitous and Future Networks (ICUFN), pp. 415-420. IEEE, 2018.
16. Ashish Chittora, "A Novel TM01-TE11 Mode Converter Designed with Periodic Semi-annular Structure Loading", IEEE International Microwave and RF Conference (IMaRC) 2018, 28-30 November, 2018, Kolkata, India.
17. Siddhant Patil, Sundaresan Balasubramaniarr, Pravin Mane, "Color Analysis and Classification Based on Machine Learning Technique Using RGB Camera", 2017 IEEE International Conference on Computational Intelligence and Computing Research (ICIC), December 2017.
18. Siddhant Patil, Amartya Basak and Pravin Mane, " Design of Voltage Amplifiers with Optimization of Multiple Design", 4th IEEE INTERNATIONAL CONFERENCE ON DEVICES, CIRCUITS AND SYSTEMS – ICDCS 2018, March 2018.
19. Sudeep Baudha and Manish Varun Yadav, "A Compact High Gain Partial Ground Plane Monopole Antenna For WLAN Application," IEEE Conference on Information and Communication Technology (CICT 2018), Jabalpur (India) October 26-28, 2018.
20. G. Bacher, A.C. Singh, S. Bhand, "Performance Evaluation of Immunosensor Based on Stability of Self-Assembled Monolayers (SAMs) Using EIS", 28th World Congress on Biosensors held at Miami, Florida, USA during 12-15 th June 2018 (Ref.-BIOS2018\_0451).
21. Sarthak Agrawal, Anita Agrawal, "A novel Approach in determining vitals in ECG, SCG and Respiration Signal", IEEE sponsored International Conference on Inventive Computation Technologies (ICICT-2018, held at Coimbatore) on 16th November, 2018
22. Praveen G.B, Anita Agrawal, Jainam Shah, and Amalin Prince, "MediCloud: Cloud-based solution to patient's medical records", 2018 International Conference on ISMAC in Computational Vision and Bio-Engineering, Springer.

**D. Posters:   1**

1. Gibin C.G. Patel K., Prince A. A., and Kumar A, 'FPGA Implementation of Fuzzy Logic Controller for Laser Beam Pointing Stability Correction', NFP-PFRC Vision Meeting – 2018 (NPVM-2018), April 26-28, 2018, Ahmedabad.

**E. Patents:   NIL**

**F. Books Published/Edited during the year:   0**

**G. Book Chapters**

1. Bhand S, Bacher G (2018) Impedimetric Sensors in Environmental Analysis: An Overview. In: Bhattacharya S, Agarwal AK, Chanda N, Pandey A, Sen AK (eds) Environmental, Chemical and Medical Sensors. Springer Singapore, Singapore, pp 67-85. doi:10.1007/978-981-10-7751-7\_4.

**H. Conferences, seminars & workshops conducted:   0**

**I. Invited Talks given by BITS faculty**

1. Key-note address titled, "Effort Delay and Appropriate Optimizing Techniques" ECAI 2018, 10th edition of the International Conference on Electronics, Computers and Artificial Intelligence, June 28 - 29, 2018, Iasi – Romania (<http://ecai.ro>)
2. A talk on 'Measurement of Dissolved Moisture in Transformer oil' by Mithun M.S. to Kerala State Electricity Board engineers on 24/11/2018
3. Conducted the technical session in STTP on Research and Analytical Approach beyond CMOS RAAC-2017 on 11-12 June 2017 at Sinhgad Institute of Technology, Lonavla (Pune) by Pravin Mane
4. Invited Lectures in GNSS workshop and school on the topics "GNSS Acquisition in Software Receivers" & "Advances in GNSS Acquisition for Software Receivers" held at NERTU, Osmania University, Hyderabad, Aug, 20- 21, 2018

**J. Invited talks arranged in the department:   4**

1. Department of EEE arranged a guest seminar on the topic of "Robotics and it's application to marine environment" on Wednesday, 21st February 2018. The guest speaker for the seminar was Prof. António Pascoal, Associate Professor (IST), Institute for Systems and Robotics (ISR-Lisboa), Portugal.

2. Department of EEE arranged a guest seminar on the topic of “An Introduction to Quantitative Prosody Modeling” on Friday, 7<sup>th</sup> September 2018. Guest speaker for the seminar was Prof. Hansjörg Mixdorff, professor at Beuth University, Berlin.
3. Department of EEE arranged a invited talk on “World Largest Particle Accelerators Upgrade And Technology Interface Opportunities at CERN” by Ms. Mandakini R. Patil, Scientific Officer ‘F’ in TIFR Mumbai.
4. Department of EEE arranged a Invited Talk on “Is There Alternative to Silicon for Solar Energy from Sun?” by Prof. B.M Arora, IIT, Goa.on Wednesday, 28th February 2018.

**K. Awards and recognitions won by faculty and students: 05**

1. Prof. Dipankar Pal, Senior Member IEEE, has been nominated Executive Member of IEEE Bombay Section (under R-10)
2. Prof. M. K. Deshmukh, has been Invited Member of International Organizing Committee and Session Chair for 5th, International Conference on Energy and Power Systems Engineering (CPESE-2018) at Nagoya University, Nagoya, Japan, September, 19-21, 2018.
3. Mr.Patil Siddhant Vitthal ([2015A8PS0475G](#)) has been awarded the prestigious Mantra - Innovator of the Year 2017-18 Award
4. Mr.Patil Siddhant Vitthal ([2015A8PS0475G](#)) Appointed as the Chair Person of IEEE - International Conference on Devices, Circuits and Systems held during 16th - 17th March 2018;
5. Mr.Anirudh Srinivas ([2015B4A30407G](#)) Received 2nd runners up in a competition held in Bangalore by Udhyan Learning Foundation to design a cash-register for micro-entrepreneurs with a budget constraint of Rs 500.

**L. Faculty Development, International Collaboration & Industry Immersion**

**M. Significant new equipment's/experimental facility added during the year:**

1. DSP TMS320C6748 Development Kits.
2. Xilinx Vivado System Edition & Zedboards
3. FLIR C2 Camera.
4. Cadence & Mentor Graphics Suites
5. Matlab 2018
6. PowerEdge R830 Server: with 4x Intel Xeon E5-4650 v4 Processor(14 Cores / socket), 512GB RAM
7. Proteus Simulation Software

**N. Departmental association/club activities:**

1. Conclave on Catalyzing Startup Ecosystem through Academia - Industry Collaborations being organized by the EEE Department in collaboration with SRCD.
2. Trotbot - An Autonomous Delivery Robot System developed by the Electronics and Robotics Club of Goa campus which can deliver a payload of around 5-10 kgs from one point to another on a flat surface.
3. Quadruped - A four-legged walking robot developed by the Electronics and Robotics Club of Goa campus, which is inspired from the four legged animals, uses a Raspberry Pi as it's brains and has many advantages over the traditional four-wheeled Robots.

**B2.10.7 .Department of Humanities and Social Sciences**

Number of faculty members (as on 31 December 2018): 16

<b>Senior Professors, Professors</b>	00
<b>Associate Professors</b>	06
<b>Assistant Professors, Gr-I</b>	08
<b>Assistant Professors, Gr-II</b>	00
<b>Visiting Assistant Professor</b>	02

**Head of the Department:** Prof. Reena Cheruvalath**Contact details (email):** reena@goa.bits-pilani.ac.in**Number of PhD Scholars:** 22 ( Full time 12+ Part time 11)**Ph.D. Thesis Submitted during the year:** 2**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 01 Details are given below.

**Ongoing Projects**

Awarded two year project titled " <i>Revival of Long-term forest monitoring in the Western Ghats, for assessing changes in ecosystem services under changing climate</i> " by BITS, Pilani, Goa	4.63 Lakhs	project duration - 01 Nov, 2018 to 31 Oct, 2020	P.I: Dr. Rajiv Kumar Chaturvedi
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**B. Publications: Journals**

S.No.	Faculty	Title	Journal Details
1.	Reena Cheruvalath	Finding virtues in the trash on the City's Edge	Film International, Intellect Indexed in SCOPUS)- (Accepted), 2018
2	Shalini Upadhyay	Microblogging for Second Language Acquisition: Lessons and Suggestions,	The Asian EFL Journal, Vol 20, 2018.(SCOPUS Indexed)
3	Shalini Upadhyay	A conceptual model incorporating Twitter as a Language Tool in ESL/EFL Learning,	TESOL Internation Journal, Vol 13, 2018 (SCOPUS Indexed)
4	Shalini Upadhyay	Fuzzy Multi-Criteria Framework for Measuring Spiritual Intelligence in a Data Driven Organization.	Elsevier Procedia Computer Science. Vol 139 pp 204-211, 2018. (SCOPUS Indexed)
5	NilakDatta	"The Museum as West and West as Museum: The Micro-Politics of Museum Display in George Catlin's Vanishing American Indians."	<i>Western American Literature. Project Muse.</i> Vol 53. No. 3. Fall 2018. Pp. 311-338. (University of Nebraska Press). <a href="https://muse.jhu.edu/article/705191">https://muse.jhu.edu/article/705191</a>
6	R K Chaturvedi	China and India lead in greening of the world through land-use management	<i>Nature Sustainability</i> (top ranking sustainability Journal in the World) (Accepted)
7	R K Chaturvedi	Tree stand structure and floristic composition of tropical forests in Garo hills, Meghalaya, North-East India	<i>Tropical Ecology (Accepted)</i>

S.No.	Faculty	Title	Journal Details
8	K.A.Geetha	Stripping Illusions and Mirroring Realities : Ed Bullins, the Absurdist	IUP Journal of English Studies (Scopus Listed)
9	Dr. Parichay Patra	Memorias de la revolucion: Historia, Cine y lo Contemporáneo	<i>Cine Documental</i> 19 (2019), pp. 116-27, indexed in Latindex and Nucleo de publicaciones cientificas argentinas, ISSN 1852-4699
10	Dr. Parichay Patra	A Tale of Two Festivals: International Film Festival of India and Experimenta	<i>Senses of Cinema</i> 86 (March 2018), MLA and APAIS indexed, ISSN 1443-4059

**Books Published/Edited during the year**

S.No.	Faculty	Title	Book details
1	Dr. Parichay Patra (Co-editor)	<i>Sine Ni Lav Diaz: Evolution of a Filipino Auteur</i>	Accepted for publication by Intellect, UK (forthcoming in 2019)

**Chapters in Books**

Sl.No.	Faculty	Title of the chapter	Book details	ISBN
1	Reena Cheruvalath	Teachers' character development in higher education settings	<i>Higher Education and Professional Ethics: Roles and Responsibilities of Teachers</i> (Ed.) S.S. Sethy, Routledge	ISBN-9780815387145 9781351173803
2.	Nilak Datta	Contemporary Affective Nationalism: Making India in the Age of Globalization"	in Ed. Sangeeta Sharma, Sushila Shekhawat, and Anupam Yadav. <i>Media, Culture and Ethics</i> . MacMillan, 2018, pp. 85-90.	
3	Rayson K Alex	"Indigenous Interiority as Nature-culture-sacred Continuum: An Ecological Analysis of <i>Have you Seen the Arana?</i> "	in Scott Slovic, R. Swarnalatha and Vidya Sarwesvaran (ed). <i>The Routledge Companion to Ecocriticism</i> . Routledge. 2019. (Forthcoming)	1138053139
4	Rayson K Alex	Kaveri.	In: Jain P., Sherma R., Khanna M. (eds) <i>Hinduism and Tribal Religions. Encyclopedia of Indian Religions</i> . Springer, Dordrecht.	<b>ISBN-10:</b> 9402411895 <b>ISBN-13:</b> 978-9402411898
5	Rayson K Alex	Cilappatikaram (Silappadigaram, Shilappadigaram).	In: Jain P., Sherma R., Khanna M. (eds) <i>Hinduism and Tribal Religions. Encyclopedia of Indian Religions</i> . Springer, Dordrecht.	<b>ISBN-10:</b> 9402411895 <b>ISBN-13:</b> 978-9402411898
6	Rayson K Alex	Tinai.	In: Jain P., Sherma R., Khanna M. (eds) <i>Hinduism and Tribal Religions. Encyclopedia of Indian Religions</i> . Springer, Dordrecht.	<b>ISBN-10:</b> 9402411895 <b>ISBN-13:</b> 978-9402411898
7	Rayson K Alex	Kaavu in Kerala (Sacred Groves in Kerala).	In: Jain P., Sherma R., Khanna M. (eds) <i>Hinduism and Tribal Religions. Encyclopedia of Indian Religions</i> . Springer, Dordrecht.	<b>ISBN-10:</b> 9402411895 <b>ISBN-13:</b> 978-9402411898

Sl.No.	Faculty	Title of the chapter	Book details	ISBN
8	Rayson K Alex	Appar.	In: Jain P., Sherma R., Khanna M. (eds) <i>Hinduism and Tribal Religions. Encyclopedia of Indian Religions</i> . Springer, Dordrecht.	<b>ISBN-10:</b> 9402411895 <b>ISBN-13:</b> 978-9402411898
9	Rayson K Alex	Kaval Kadavul (Guardian Deity).	In: Jain P., Sherma R., Khanna M. (eds) <i>Hinduism and Tribal Religions. Encyclopedia of Indian Religions</i> . Springer, Dordrecht.	<b>ISBN-10:</b> 9402411895 <b>ISBN-13:</b> 978-9402411898
10	Rayson K Alex	Kutiyattam.	In: Jain P., Sherma R., Khanna M. (eds) <i>Hinduism and Tribal Religions. Encyclopedia of Indian Religions</i> . Springer, Dordrecht.	<b>ISBN-10:</b> 9402411895 <b>ISBN-13:</b> 978-9402411898
11	Dr. Parichay Patra	Escaping the DVD Dispositif: Abraham and the Historical Exhibition	<i>Wondrous Screens: Indian Cinema and Exhibition Spaces</i> , Ed. Madhuja Mukherjee & Kaushik Bhaumik, New Delhi: Routledge	Accepted, Forthcoming
12	Dr. Parichay Patra	Raped, Mutilated and Murdered: Gendred Bodies from the Diaz Universe	<i>Gendred Ways of Transnational Un-belonging from a Comparative Literature Perspective</i> , Ed. Indrani Mukherjee, Newcastle upon Tyne: Cambridge Scholars Publishing	Accepted, Forthcoming
13	Dr. Parichay Patra	Cinema(s) and their Locations: An Asiatic Panorama	<i>Film Studies: An Introduction</i> , Ed. Vebhuti Duggal et al, New Delhi: Worldview	Accepted, Forthcoming

#### D. Conferences Abroad

Sl.No	Faculty	Title of the Paper	Details	Dates
1	Shalini Upadhyay	Microblogging for Second Language Acquisition: Lessons and Suggestions	The Asian EFL Journal's International Conference on Research & Publication August 2018,	24-26 August 2018
2	Shalini Upadhyay	A conceptual model incorporating Twitter as a Language Tool in ESL/EFL Learning,	The Asian EFL Journal's International Conference on Research & Publication August 2018, Indonesia	24-26 August 2018
3	Shalini Upadhyay	Fuzzy Multi-Criteria Framework for Measuring Spiritual Intelligence in a Data Driven Organization.	6th International Conference on Information Technology and Quantitative Management(ITQM),	21-22 Oct 2018, Nebraska, USA
3	Rayson K Alex	The Ontic (Dis)Continuity of Human and Non-Human Body of the Indigenous Communities in India	Title of the conference: Rewriting and Editing the Body in the Age of the Anthropocene Organized by the Institute of Body and Culture, Konkuk University, South Korea	11 December 2018
4	Dr. Parichay Patra	Transnational Cinema Studies and Interdisciplinarity: A South Asian Intervention	Paper presented at Dial S for Screen Studies, Annual Symposium of Sydney Screen Studies Research Network, University of New South Wales, Sydney, Australia	November 12-13, 2018
5	Dr. Parichay Patra	Cinema, Politics and the Contemporary: Absence and Astrophysics	Paper presented at the Second Ireland-India Institute Conference on South Asia, Dublin City University, Ireland	April 26-27, 2018

**Conferences in India**

S.No.	Faculty	Title of the Paper	Details of conference	Dates
1	NilakDatta	“Stereotype Print and Contemporary Affective Nationalism: Making India in the Age of Globalization” on 09-February-2018	International Conference on Media, Culture, and Ethics held at BITS Pilani, Pilani Campus	(9-10 February, 2018).
2	NilakDatta	“The Call of the Wilderness: The Linnaean Classification of Spectacular Cityscapes in Dave Praeger’s <i>Delirious Delhi</i> and Sarah MacDonald’s <i>Holy Cow</i> ” on 10-March-2018	17 <sup>th</sup> MELOW International Conference on Space, Place, and Landscape in Literatures of the World” in Dharamasala (India). The academic host was Central University of Himachal Pradesh.	09-March-2018 to 11-March-2018
3	Rayson K Alex	“Self in <i>neotinaï</i> : My Experience with South Indian Indigenous Communities”	at the International Conference on Literature and Environment: The Promise of Ecological Criticism held at University of Kashmir, Srinagar	26th to 28th March 2018.
4	R K Chaturvedi	Planning Climate Resilient Forest Ecosystems: A case-study from North-eastern India,	14th National Silviculture Conference on “Forest and Sustainability: Securing a Common Future” to be organized at Institute for Wood Science and Technology, Bengaluru	During 3rd to 5th December, 2018
5	Dr. Parichay Patra	In the Cinema/City: The Spatial Politics of the Parisian <i>Queen</i>	Paper presented at the International Conference on ‘Indian Cinema and Alternate Networks’, organized jointly by DME Media School, New Delhi, and School of Communications and Creative Arts, Deakin University, Australia, in New Delhi (proceedings published)	November 16-18, 2018
6	Bidisha Banerjee	<i>Psychiatric Pluralism in India: Insights from an Ethno-Psychiatric Study</i>	6 <sup>th</sup> International Psychology Congress organised by IFCU and Christ (Deemed to be university), Bangalore	3-6 <sup>th</sup> October, 2018

**Invited talks:**

1. Reena Cheruvalath, Resource Person to teach a session on ‘Research Design’ in a National Research Methodology Workshop organized by IGNOU Centre, Goa sponsored by ICSSR, 14<sup>th</sup> – 28<sup>th</sup>, January 2018
2. Reena Cheruvlalath, Invited for a talk on ‘Introduction to Meta-moral cognition’ in The Department of Education, University of Tokyo, Japan, June 8, 2018.
3. Title: How to Address the Elephant in the Room : Pedagogy and Student Motivation in College-Level Teaching Through Ken Bain’s What the Best College Teachers Do (2004). TLC invited seminar (talk) by NilakDatta on 14th November (Wednesday) at 5 PM.
4. 2018 - Keynote address titled “*tinaï*, indigenous cosmopolitics and Indian indigeneity”. Rayson K Alex was delivered at the 10th National conference of SRM University, Chennai, themed "Nature, Culture, Language and Literature: Narratives and Critical Practices" on 16th and 17th of April, 2018.
5. Rajiv Kumar Chaturvedi ‘Case-study of Vulnerability Assessment in the Forest Sector in Meghalaya’, Workshop on Data and Tools for Climate Resilience, South Asia Regional office of Future Earth, IISc, Bangalore 13-14 August, 2018.
6. K A Geetha: Presented a paper titled “*Memory as communication*” at the Plenary session of the International Conference on “ Cultural Seimiotics of English Language and Literature: organized by ELTAI(English Language Teachers Assocaition of India) and Hindu College, Chennai in March 2018
7. Parichay Patra: Delivered an invited talk titled ‘Beyond the Nation and Not Within: A Transnational Travelogue’ at the Dept. of Humanities and Social Sciences, IIT Ropar, on October 27, 2018.

8. Parichay Patra: Delivered an invited talk titled 'Memorias de la revolucion: Historia, Cine y lo Contemporaneo' at the conference VI Jornadas Internacionales y IX Nacionales de historia, arte y politica, organized by the Universidad Nacional del Centro de la Provincia de Buenos Aires (UNICEN), Tandil, Argentina, June 21-23, 2018.
9. Bidisha Banerjee: Delivered a talk on 'Fundamentals of Qualitative Research Methods' as a panellist at "Jaagriti- Enlivening Young Scientists" a National level students' conference organised by Sampurna Montfort College, Bengaluru on 17th March, 2018.
10. Delivered a seminar on "Manifestations of Perceived Stigma among Family Members in Psychiatric Context in West Bengal: Insights from a Narrative Inquiry" at the Department of Humanities and Social Sciences, BITS Pilani K K Birla Goa campus (Weekly Seminar series) on 25<sup>th</sup> October, 2018).
11. Parichay Patra curated and organized a festival titled '50 Years of The Hour of the Furnaces and Other Argentine Political Experimental Cinema Since' at the School of Arts and Aesthetics, Jawaharlal Nehru University, New Delhi, on October 27-28, 2018.

**H. Awards and recognitions won by faculty and students:**

Dr. Rajiv Kumar Chaturvedi - Elected member of global 'Commission on Ecosystem Management' in 'The International Union for Conservation of Nature (IUCN)' for the Quadrennial Period 2017-2020

**I. Faculty Development, International Collaboration & Industry Immersion:**

Prof. Reena Cheruvalath, Visiting Research Scholar, Department of Education, University of Tokyo, May-July, 2018

**J. Significant new equipments/experimental facility added during the year : Nil.**

**K. Departmental association/club activities: NA**

**B2.10.8 Department: Mathematics**

Number of faculty members (as on 31 December 2018): 16

<b>Senior Professors, Professors</b>	00
<b>Associate Professors</b>	03
<b>Assistant Professors , Gr-I</b>	11
<b>Assistant Professors, Gr-II</b>	00
<b>Visiting Faculty</b>	02

**Head of the Department:** Prof. Prasanna Kumar N

**Number of PhD Scholars:** 21 ( 17FT+4PT)

**Ph.D. Thesis Submitted during the year:** 1

**A. Sponsored Research activities:****(i) Ongoing projects:**

- Title of the Project: DST-FIST, Level 1 Program for establishing Scientific Computing Lab.  
Funding Agency: DST  
Duration: 5 years (2015-20120)  
Total Amount: 37.5 Lakhs (50 DST:50 BITS)  
Coordinator: Dr. P. Dhanumjaya
- Title of the Project: Predictive Mathematical Modeling and Analysis for Effective Diagnosis and Control of Diabetes Mellitus with associated Co- infections and Diseases among Indians  
Funding Agency: DST-SERB  
Duration: 3 years (2017-2020)  
Total Amount: 15.7 Lakh  
PI: Dr. Dhanumjaya P
- Title of the Project: Theoretical and Numerical Study of Elliptic and Parabolic Partial Differential Equations with Interfaces  
Funding Agency: National Board for Higher Mathematics  
Duration: 3 years (2017-2020)  
Total Amount: 13.5 Lakh  
PI: Dr. P. Dhanumjaya
- Title of the Project: A Study on the Inequalities Involving Complex Polynomials  
Funding Agency: National Board for Higher Mathematics  
Duration: 3-years (February-2017 to January-2020)  
Total Amount: Rs. 13 .041 lacs  
PI: Dr. Prasanna Kumar
- Title of the Project: Bernstein Type Inequalities for the Polar Derivative of a Polynomial  
Funding Agency: Council of Scientific & Industrial Research (CSIR), Govt of India  
Duration: 3-years (May-2017 to April-2020)  
Total Amount: Rs 16.46 lac  
PI: Dr. Prasanna Kumar
- Title of the Project: Study on Dark Energy, Dark Matter and Cosmic Acceleration of the Universe in Modified Gravity  
Funding Agency: Council of Scientific & Industrial Research (CSIR), Govt of India



Duration: 3-years (May-2017 to April-2020)

Total Amount: Rs 16.96 lac

PI: Dr. G. C Samanta

7. Title of the Project: A study of homotopy invariants of a model category.

Funding Agency: Science and Engineering Research Board (SERB).

Scheme: Mathematical Research Impact Centric Support (MATRICS).

Duration: 3-years (2017-2020)

Total Amount: Rs. 6,60,000/-

PI: Dr. Shilpa Gondhali

- (ii) **Projects sanctioned during the year: 0**

**B. Books Published/Edited during the year: nil**

**Faculty Members joined: 1**

**Invited lectures/talks delivered by faculty members:**

1. Pradeep Boggarapu delivered a talk on "Harmonic Analysis in Dunkl Setting" in Harmonic Analysis meet held at Department of Mathematics, IIT Bombay on 18<sup>th</sup> August, 2018.
2. Anil Kumar delivered an invited talk in National Conference on " *Advances in Differential Equations -2018*" which was held on September 29, 2018 at Department of Mathematics, Vivekanand College, Kolhapur. The title of the talk was "*Optimal Control Problem: A Use of Pontryagin Minimum Principle*". Also chaired one of the paper presentation session.
3. Anil Kumar delivered lectures and held tutorial sessions on "*Ordinary Differential Equations*" in the Winter School on Differential Equations which was held at Department of Mathematics, Savitribai Phule Pune University, Pune during December 03 to December 14, 2018.
4. P. Dhanumjaya delivered a talk in the International Conference on Mathematical Modeling and Computations (ICMMC-2018) held at South Asian University during December 1-3, 2018.
5. P. Dhanumjaya delivered a talk in the Short Term Training Programme (STTP) at NIT Warangal during 9-13, October 2018.
6. P. Dhanumjaya delivered a talk in the International Conference & 14th Biennial Conference of ISIAM held during 2-4 Feb, 2018 at GNDU, Amritsar.
7. P. Dhanumjaya delivered a talk in the National Conference on Advances in Differential Equations -2018 to be held on 29<sup>th</sup> September 2018 at Department of Mathematics, Vivekanand College, Kolhapur.
8. Prabal Paul delivered an invited talk entitled 'On Some Counting Arguments and their Applications' during my visit at 'School of Mathematics and Statistics, University of Hyderabad' (June 2018).
9. Prabal Paul delivered a talk entitled 'On some recent trends in Algebraic Cryptography' in 'National Conference on Algebra' held in 'University of Punjab, Punjab' during 'Feb 23-Feb 24'.
10. Prabal Paul gave a talk in 'National Workshop on Number Theory and its Applications' held at 'School of Mathematics and Statistics, University of Hyderabad' during 'March 19-March 20, 2018'. I was also in the 'Organizing Committee' of the workshop.
11. Bijil Prakash was a Resource person and he delivered talks at ICSSR Sponsored 14- Day Capacity Building workshop organized by Indira Gandhi National Open University, Regional Centre Panaji Goa from 8<sup>th</sup> to 21<sup>st</sup> January 2018.
12. Tarkeshwar Singh delivered an invited talk on *Distance Magic and Antimagic Labeling of some Graphs* in National Conference on Graph Theory and Discrete Mathematics organized by Department of Mathematics, Mangalore University, Mangalore during Feb.5-6, 2018, also chaired a session.
13. Tarkeshwar Singh delivered an invited talk on *S-Magics and Nearly Magic Labeled Graphs* in International Conference on Recent Trends in Graph Theory and Combinatorics (ICRTGC 2018) organized by Department of Mathematics, Cochin University of Science and Technology, Cochin India during April 26-29, 2018.
14. Tarkeshwar Singh delivered an invited talk on *S-Magics and Nearly Magic Labeled Graphs* in 10<sup>th</sup> International Workshop on Graph Labeling (IWOGL 2018) organized by School of Computer Science, Ball State University, Muncie during September 26-28, 2018 through Webex.

15. Shilpa Gondhali lectured about point set Topology in the Training Program in Mathematics (TPM18) held at NISER, Bhubneswar in June 2018.
16. Shilpa Gondhali delivered lectures on Cohomology and held torials in Advnced Instructional School (AIS) held at NEHU, Shillong in July 2018.
17. Amit Setia delivered one invited lecture entitled "Modeling of crack problems and developing a numerical method to find its solution" was delivered in the international conference "International Conference on Mathematical Modeling and Computations (ICMMC-2018)" held at SAU, New Delhi, during 01 December 2018 – 03 December 2018.

### C. Research Publications:

#### • Journals (International)

1. A. M. Dhorajia and H. Himadri; Polynomial rings over commutative reduced Hopfian local rings, *Acta Mathematica Hungarica*, 154(1) (2018), 243-251.
2. A. M. Dhorajia; Some graphs on prime ideals of a commutative ring, *International Electronic Journal of Algebra*, 23(2018), 157-166.
3. Prasanna Kumar; A Remark on Sendov Conjecture, *Comptes Rendus de l'Academie Bulgare des Sciences*, 71(6), 731-734, 2018.
4. P. Shwetha and K. Prasanna; Pedotransfer Functions for the Estimation of Saturated Hydraulic Conductivity for some Indian Sandy Soil, *Eurasian Soil Science*, 51(9), 1042-1049, 2018.
5. M. N. Chintamani and Prabal Paul; On some weighted zero-sum constants II, *International Journal of Number Theory*, Vol. 14, No. 02, pp. 383-397, 2018.
6. P. Shah, Gauranga C. Samanta, S. Capozziello; Qualitative behavior of cosmological models combining various matter fields, *International Journal of Modern Physics A(IJMPA)*, 33 (2018) 1850116-1850135.
7. G. C. Samanta, Mayank Goel and R. Myrzakulov: Strength of the singularities, equation of state and asymptotic expansion in Kaluza-Klein space time, *New Astronomy*, 60 (2018) 74-79.
8. Gauranga C. Samanta, Shantanu K. Biswal and Kazuharu Bamba: Nonlinear electrodynamics, singularities and accelerated expansion, *Physical Review D(PRD)*, American Physical Society (Accepted in 2018).
9. Nisha Godani and Gauranga C. Samanta; Traversable wormholes and energy conditions with two different shape functions in  $f(R)$  gravity, *International Journal of Modern Physics D (IJMPD)* (accepted in 2018).
10. Kojam Manihar Singh, Gauranga C. Samanta: Dark energy and its manifestations, *New Astronomy* (accepted in 2018).
11. A. V. Astashenok, K. Mosani, S. D. Odintsov and Gauranga C. Samanta; Gravitational collapse in general relativity and  $R^2$  gravity: a comparative study, *International Journal of Geometric Methods in Modern Physics(IJGMMP)* (accepted in 2018).
12. R.K. Roul, J.K. Sahoo; An effective topic-based ranking technique for categorised reaserch articles, *Int. J. of Computational System Engineering*, Vol 4(1), 35-45, 2018.
13. A.K. Nandi, J.K. Sahoo, P Ghosh; Three-step alternating and preconditioned scheme for rectangular matrices, *Journal of Applied Mathematics & Computing*, Accepted, 2018. (Scopus)
14. C.S Singh, A.K. Singh, J.K. Sahoo; Numerical scheme based on operational matrices for intgro-differential equation, *International Journal of Engineering & Technology*, 7(4.41), 50-54, 2018 (Scopus)
15. T. Singh and Aloysius Godinho; Some Distance Magic Graphs, *AKCE International Journal of Graph and Combinatorics*, 15(1) (2018), 1-6.
16. T. Singh, Jessica Pereira and S. Arumugam; *Edge Consecutive Graceful Labeling of a Graph* (To appear in *Discrete Applied Mathematics* 2018).
17. A. Das, S. Gondhali, G. Mukherjee; Nambu structures on Lie algebroids and their modular classes, *Proc. Indian Acad. Sci. (Math. Sci.)* (Accepted in 2018).
18. R.K. Roul, J.K. Sahoo, Kusagr Arora; Query-Optimized PageRank: A Novel Approach, *Advances in Intelligence System and Computing*, vol 711, page 673-683, 2018, Springer.
19. R.K. Roul, J.K. Sahoo; Document Labeling Using Source-LDA Combined with Correlation Matrix, *Advances in Intelligence System and Computing*, vol 711, page 697-707, 2018, Springer.
20. R.K. Roul, J.K. Sahoo; Text Categorization Using a Novel Feature Selection Technique Combined with ELM, *Advances in Intelligence System and Computing*, vol 709, page 217-228, 2018, Springer.

21. Vaishali Sharma, Amit Setia, Numerical solution and its analysis for a system of hypersingular integral equations, *Journal of Computational and Applied Mathematics* 343 (2018) 520–538.
22. Vaishali Sharma, Amit Setia, Ravi P. Agarwal, Numerical solution for system of Cauchy type singular integral equations with its error analysis in complex plane, *Applied Mathematics and Computation* 328 (2018) 338–352.

- **Journals (National): nil**

- **Proceedings in Conferences**

1. Anil Kumar, Bishnu P. Lamichhane, Balaje K.; *A Mixed Finite Element Method for Elliptic Optimal Control Problems Using a Three-Field Formulation*, Proceedings of the 13th Biennial Engineering Mathematics and Applications Conference, EMAC-2017, ANZIAM J., 59 (2018), C97–C111.
2. P. Danumjaya and Santosh Kumar Bhal; *A Fourth Order Orthogonal Spline Collocation Methods for the One-Dimensional Helmholtz equation with a discontinuous Coefficient*, *Jour. Analysis (Springer)* DOI:10.1007/s41478-018-0082-9
3. P. Danumjaya, Merina Dhara and Veeky Baths; *Mathematical modeling and dynamics of tuberculosis infection among diabetic patients in India*, *Jour. Analysis (Springer)* DOI: 10.1007/s41478-018-0086-5
4. Pratikkumar Desai, Deval Sanjay Garde, Sreejith V, Bijil Prakash; *Brain-Computer Interface Based Home Automation System for Paralyzed People*, IEEE RAICS 2018, the fourth edition of the International Conference on Recent Advances in Computational Systems (Accepted in 2018).
5. Amit Setia, Pushpendu Ghosh, Roshan R. Nair, Numerical solution of a nonlinear fractional model for hepatitis C by using Haar wavelets, *AIP Conference Proceedings* 1975, 030005 (2018); doi: 10.1063/1.504217

**D. Paper presentations in International/National Conferences:**

1. Anil Kumar “*Optimal control of the velocity term in a Kirchoff plate equation with multiplicative control*” Anil Kumar delivered a talk on “*Controllability of a Class of Parabolic Differential Equations with Memory Term*” in the International & 14th Biennial Conference of Indian Society of Industrial and Applied Mathematics (ISIAM) which was held at Guru Nanak Dev University, Amritsar during February 2 to February 4, 2018.
2. Ritu Dhankar and Prasanna Kumar, *A Remark on the Location of zeros of a Polynomial*, Paper presented in *33rd Annual Conference of the Ramanujan Mathematical Society* held at Department of Mathematics, Delhi University, Delhi, India during June 1-3, 2018.
3. Prasanna Kumar, *Inequalities Involving Polar Derivative of a Polynomial with Restricted Zeros*, Paper presented in *14th Serbian Mathematical Congress* held at Department of Mathematics, University of Kragujevac, Kragujevac, Republic of Serbia, Europe, during May 16-19, 2018.
4. Himadri Mukherjee, *Improved Banzhaf power index*, *ICMAA, June 2018, Shinshu University, Nagano, Japan*
5. Pabitra Pradhan and Manoj Pandey, *Lie Symmetries and Exact Solutions of Shallow Water Equations with Horizontal Temperature Gradient*, International Conference on Mathematical Modelling and Computations (ICMMC-2018), South Asian University New Delhi.
6. Sweta Govekar and Manoj Pandey, *Interaction of weak discontinuity with characteristic shock in generalized magnetogasdynamics equations*, International Conference on Mathematical Computer Engineering - 2018 (ICMCE-2018) at Vellore Institute of Technology, Chennai, India.
7. Sahoo, J.K., *Three Step scheme for rectangular matrices*, International Conference on Computational Methods, Simulation and Optimization (ICCMO-2018), Bangkok, Thailand, June 22-24, 2018.
8. Roul R.K., Sahoo J.K, *Sentiment analysis and extractive summarization based recommendation system*, 05<sup>th</sup> international conference on Computational Intelligence in Data Mining, VSSUT, Sambalpur, Orissa, India December 15-16, 2018.
9. Roul R.K., Sahoo J.K, *Near-Duplicate document detection using semantic-based similarity measure: A novel approach*, 05<sup>th</sup> international conference on Computational Intelligence in Data Mining, VSSUT, Sambalpur, Orissa, India December 15-16, 2018.
10. Gauranga Samanta, Visited Japan and presented a paper entitled "Three fluid cosmological models in general relativity" in International Conference "String-Math-2018" at Tohoku University, Sendai during 18th - 22nd June-2018.
11. Amit Setia presented one paper entitled “Numerical solution of a nonlinear fractional model for hepatitis C by using Haar wavelets” at the international conference “FIAM 2018 International Conference on Frontiers in Industrial and Applied Mathematics” held at NIT Hamirpur, Himachal Pradesh, during 26 April 2018 - 27 April 2018.

12. Amit Setia presented one paper entitled "Dynamics of avian influenza A (H5N1) under facility closure and vaccination" at the international conference "International Conference on Mathematical Modeling and Computations (ICMMC-2018)" held at SAU, New Delhi, during 01 December 2018 – 03 December 2018.

#### E. Workshops Attended:

1. Pradeep Boggarapu attended workshop "Harmonic Analysis Meet" held at the Dept. of Mathematics, IIT Bombay, from 15<sup>th</sup> August-19<sup>th</sup> August, 2019.
2. Anil Kumar attended a discussion meeting on *Teaching Differential Equations in India* held at Indian Academy of Sciences, Bangalore during February 26 to February 28, 2018.
3. Himadri Mukherjee attended 7<sup>th</sup> *International conference on Matrix Analysis and Applications, Shinshu University, Nagano, Japan. June 22-25, 2018.*
4. P. Dhanujaya attended International Workshop on Modeling Dynamics, Statistical Interference and Prediction of Infectious diseases (MoDSIP-ID), held at Department of Mathematics and Computer Science, Sri Satya Sai Institute of Higher Learning, PrasanthiNilayam (A.P) from 12<sup>th</sup> August to 15<sup>th</sup> August, 2018.
5. Shilpa Gondhali attended the workshop 'Volume Conjecture and Related topics in Knot Theory' which was held in IISER Pune from December 17-21, 2018.

#### F. Books Published/Edited during the year: Nil.

#### G. Conferences, seminars & workshops conducted in the department:

Organized International Conference on Discrete Mathematics and its Applications to Network Science (ICDMANS-2018) during July 7-10, 2018.

#### H. Invited talks arranged in the BITS:

##### I. Invited talks arranged in the department:

1. September 29, 2018, Prof. Mohan K Kadalbajoo, FNASc, FWIF, FIAMMS, Distinguished Professor, Department of Mathematics, LNMIIT Jaipur (Formerly: Professor, Department of Mathematics & Statistics, I.I.T. Kanpur) delivered a lecture on "An Optimal Error Estimate of an IMEX Finite Element Method for Some Partial Integro-differential Equations Arising in Finance".
2. September 19, 2018, Dr. Archana Morye, Assistant Professor, School of Mathematics and Statistics, Hyderabad Central University delivered a lecture on "The Serre-Swan Theorem".
3. August 8, 2018, Prof. Kiran R. Bhutani, Department of Mathematics, The Catholic University of America, Washington DC delivered a lecture on "F-Domination in Graphs and Applications".
4. April 27, 2018, Prof. C. S. Arvinda, TIFR Center for Applicable Mathematics delivered lectures on the following topics:
  - Gauss-Bonnet theorem and uniformization.
  - Geometrization of closed 3-manifolds.
5. April 6, 2018, Dr. Sachindranath Jayaraman, School of Mathematics, Indian Institute of Science Education and Research, Thiruvananthapuram delivered a lecture on "Semipositivity of matrices and linear maps relative to proper cones".
6. March 31, 2018, Prof. Amiya K. Pani, Institute Chair Professor, Department of Mathematics, Industrial Mathematics Group, IIT Bombay delivered a lecture on "Scientific Computing: A New Way of Looking at Mathematics".
7. March 28, 2018, Prof. Gurmeet K. Bakshi, Professor & Chairperson, Department of Mathematics, Panjab University, Chandigarh delivered a lecture on "Cayley table in Sudoku style".
8. February 28, 2018, Dr. Somnath Jha, Assistant Professor, Department of Mathematics and Statistics, IIT Kanpur delivered a lecture on "Congruent number problem".
9. February 20-22, 2018, Prof. S. Arumugam, Adjunct Professor, Department of Mathematics, Amrita Vishwa Vidyapeetham Coimbatore delivered lecture series on the following topics:
  - Submission of Project Proposal Under the Matrics Scheme.
  - Algebraic Graph Theory.
9. February 14, 2018, Prof. David Blanc, Department of Mathematics, University of Haifa, Israel delivered a lecture on "On configuration spaces for linkages".

**J. Achievements/Awards by the Faculty members:**

Dr. Amit Setia and Dr. Shilpa Gondhali got Ahlfors seminar award-2018 at the Department of Mathematics, BITS Pilani K. K. Birla Goa campus.

**K. Faculty Development, National/International Collaboration & Industry/ University immersion:****Collaborations:****Prasanna Kumar**

- Prof. N. K. Govil, Department of Mathematics and Statistics, Auburn University USA.
- Prof. Gerhard Schmeisser Department Mathematik, FAU Erlangen-Nürnberg, Germany.
- Prof. C. S. Aravinda, TIFR centre, Bengaluru

**P. Dhanumjaya**

- Prof. Graeme Fairweather (Senoir Editor in AMS, USA).
- Prof. Veerappa Gowda (TIFR-CAM, Bangalore).
- Prof. Amiya Kumar Pani (IIT Bombay).

**Prabal Paul:**

- Dr. Mohan Namdev Chintamani (Department of Mathematics and Statistics, University of Hyderabad, has visited our department several times for possible research collaboration).
- Dr Prabal Paul has also visited University of Hyderabad, Harish Chandra Research Institute, Allahabad, Indian Statistical Institute, Kolkata, on research collaboration.

**Anil Kumar**

- Dr. Bishnu Prasad Lamichhane, School of Mathematical and Physical Sciences, University of Newcastle, Australia.

**L. Significant new equipments/experimental facility added during the year: Nil****M. Departmental association/club activities:**

1. Weekly Seminars by our faculty members were held in the Department of Mathematics.
2. Mathletes association organized Department Week during January 29 - February 3, 2018. The most enthralling event 'Addition' comprised of mathematical aptitude test/competition for the students of Institute and top three winners were awarded with a cash prize up to Rs 4000/.
3. January 23, 2018, Orientation meeting followed by High Tea was held for research scholars of mathematics department. Head, DRC convener and members presented about the roles and duties of research scholars in the growth of the department.
4. January 18, 2018, Mathletes, The Mathematics Association, organized a get-together event of all faculty and students in mathematics followed by dinner. Some talent show events were the part of this function.

**N. Any other information: nil**

**B2.10.09 Department: Mechanical Engineering**

Number of faculty members (as on 31 December 2018) :18

<b>Senior Professors, Professors</b>	02
<b>Associate Professors</b>	02
<b>Assistant Professors, Gr-I</b>	11
<b>Assistant Professors, Gr-II</b>	03
<b>Visiting Faculty</b>	00

**Head of the Department:** Dr. Ranjit S Patil**Contact details:** [ranjitp@goa.bits-pilani.ac.in](mailto:ranjitp@goa.bits-pilani.ac.in)**Number of PhD Scholars:** 10 Full time + 3 Lecturers + 8 Part-time = 21**Ph.D. Thesis Submitted during the year: 0****A. Sponsored Research activities:**

Total number of Sponsored Projects in the department. Details are given below.

**(i) Ongoing projects: 8**

Sr.No.	Name of Investigator	Title of Project and duration	Amount sanctioned (Rs)	Funding Agency
1	<b>Ranjit S Patil</b>	Study and Analysis of Fluid Dynamics and Heat Transfer Characteristics in Circulating Fluidized Bed Heat Exchanger with Novel Designs of Heat Exchanger	27.66 Lakhs	SERB-DST
2	<b>P M Singru</b>	An acoustic study, characterization and standardization of the Sarasvati Veena, 3 years	36.96 lakhs	DST-SERB
3	<b>Varinder Singh(Goa Campus) PI</b> Prof. Amit Kumar Gupta (Hyd Campus) Co PI Prof S P Regalla (Hyd campus) Co PI Dr. TC Bera (Pilani campus) Co PI	Study of Lubricant and Application Method for enhanced surface finish and reduced draw load on cold drawn steel tubes (Duration: 3 years)	27.43 Lakhs	Tube Investments of India Ltd (TIIL), Chennai
4	<b>Kiran D. Mali</b>	Experimental and Computational Study of the Free Transverse Vibration Behaviour of Perforated Cantilever Steel Beam.	2 Lakhs	BITS Goa (RIG)
5	<b>Sandeep Jose</b>	Study on buckle wave propagation in axially compressed cylindrical shells considering the effect of geometric imperfections	2 Lakhs	BITS Goa (RIG)
6	<b>Sandeep Singh</b>	Multiscale modelling for the dynamic characteristics of initially strained graphene sheets and carbon nanotubes	2 Lakhs	BITS Goa (RIG)
7	<b>VadirajHemadri</b>	Thermal performance characterization of Loop Heat Pipes with nanofluids by infrared thermography.	2 Lakhs	BITS Goa (RIG)
8	<b>Siddhartha Tripathi</b>	Microfluidic Sperm cell sorting device: addressing male infertility factor	2 Lakhs	BITS Goa (RIG)

## (ii) Projects sanctioned during the year: 8

Sr. No.	Name of Investigator	Title of Project and duration	Amount sanctioned (Rs)	Funding Agency
1	Kiran D Mali	Experimental and Numerical Study on Crashworthiness of Aluminium-Composite Collapsible Energy Absorber under Quasi-static Loading	5.25 Lakhs	BITS ACG
2	Sandeep Jose	A study on energy barrier to buckling in cylindrical shells	10 Lakhs	BITS ACG
3	Sandeep Singh	Automatic continuum coupled methods for the large deformation simulation of two dimensional nonmaterial	6.90 Lakhs	BITS ACG
4	Vadiraj Hemadri	Study of heat transfer in loop heat pipe with nanofluids with infrared thermography	9 Lakhs	BITS ACG
5	Sandeep Jose	Study on buckle wave propagation in axially compressed cylindrical shells considering the effect of geometric imperfections	2 Lakhs	BITS Goa (RIG)
6	Sandeep Singh	Multiscale modelling for the dynamic characteristics of initially strained graphene sheets and carbon nanotubes	2 Lakhs	BITS Goa (RIG)
7	Vadiraj Hemadri	Thermal performance characterization of Loop Heat Pipes with nanofluids by infrared thermography.	2 Lakhs	BITS Goa (RIG)
8	Siddhartha Tripathi	Microfluidic Sperm cell sorting device: addressing male infertility factor	2 Lakhs	BITS Goa (RIG)

## (iii) Projects completed this year: Nil

## B. Publications: 11

Sl. No.	Authors	Title of the Publication	Journal	Vol	Issue	Page	Month of Publication	Year of Publication	National/ International
1	Pravin Singru, Vishnuvardhan Krishnakumar, Dwarkesh Natarajan, Ayush Raizada	Bearing failure prediction using Wigner-Ville distribution, modified Poincare mapping and fast Fourier transform	Journal of Vibro-engineering.	FEB 2018, VOL. 20, ISSUE 1, pp. 127-137.(SCI and scopus)					International
2	Varinder Singh, Pravin M. Singru	Graph theoretic structural modeling based new measures of complexity for analysis of lean initiatives	Journal of Manufacturing Technology Management	Volume 29, Issue 2, pp.329-349 <a href="https://doi.org/10.1108/JMTM-09-2017-0185">https://doi.org/10.1108/JMTM-09-2017-0185</a>					International
3	Femi Robert, Anita Agrawal, Shibu Clement	Modeling and Analysis of Scalable Arcless Micromechanical Switch for Battery Powered Electrical System	Micro and Nanosystems,	Vol. 10, No. 1, PP. 23-34, 2018					International
4	Femi Robert, Anita Agrawal, Shibu Clement	Effect of Anode Temperature and Contact Voltage on the Design of Arcless Micro Electrical Contact	Micro and Nanosystems,	Accepted					International
5	Nupur Kumar, Dayananda Desagani, Girish Chandran, Narendra Nath Ghosh, Ganesh Karthikeyan,	Biocompatible agarose-chitosan coated silver nanoparticle composite for soft tissue engineering applications	Artificial Cells, Nanomedicine, and Biotechnology, Taylor and Francis	46	3	637-649	June	2018	International

Sl. No.	Authors	Title of the Publication	Journal	Vol	Issue	Page	Month of Publication	Year of Publication	National/ International
	<b>Sachin Waigaonkar &amp; Anasuya Ganguly</b>								
6	Mathur, S., Mittal, V.K., Upadheye, N., Mathur, K., <b>Singh, V.</b>	SCM strategy for sales augmentation using TSP algorithm and time bound marginal discount utility	International Journal of Supply Chain Management	7	1	87-94	January	2018	International
7	<b>S. Singh</b> and B. P. Patel	Effect of initial strain and material nonlinearity on the nonlinear static and dynamic response of graphene sheets,	Journal of Sound and Vibration	423, pp. 373–400. (SCI, IF: 2.61)				International	
8	<b>S. Singh</b> and B. P. Patel,	Mathematical treatise to model the dihedral energy in the multiscale modelling of two-dimensional nanomaterials	ASME Journal of Applied Mechanics	85 (6), pn. 061003. (SCI, IF: 2.12)				International	
9	<b>S. Singh</b> and B. P. Patel	Large deformation static and dynamic response of carbon nanotubes by mixed atomistic and continuum models,	International Journal of Mechanical Sciences	135, pp. 565–581. (SCI, IF: 3.62)				International	
10	<b>S. Singh</b> and B. P. Patel	Nonlinear elastic properties of graphene sheet using MM3 potential under finite deformation,	Composites Part B: Engineering	136, pp. 81–91. (SCI, IF: 4.92)				International	
11	Karthikeyan and Satish Mullya	Accretion behavior and debris flow along interelectrode gap in $\mu$ ED-milling process	IJAMT, Springer	In press, March 2018				International	

S. No.	Authors	Title of Paper	Conference Name	Location	Date, Month and Year	National /International
1	Abhilash K. Tilak, Ranjit S. Patil	Comparative Analysis of Thermohydraulic Performance of Rectangular and Hexagonal Cross-Section Microchannel Heat Sink	7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP)	IIT Bombay, Mumbai	December 10-12, 2018	International
2	Samyak Jain. Ranjit S Patil	Numerical Solution of Novel Nozzle Intake Manifold	International Conference on Recent Advances in Fluid & Thermal Sciences during	BITS Pilani – Dubai Campus, Dubai, UAE	5th-7th December 2018,	International
3.	Barapatre S., Deshpande C., Giri N., Mewani G., Mishra D., Abhilash K. Tilak, Ranjit S. Patil	Selection of Suitable Mesh for Simulation of a Trapezoidal Microchannel Heat Sink with Different Fluids	1st Symposium and Workshop for Analytical Youth on Applied Mechanics (SWAYAM 2018)	BITS Pilani, K. K. Birla Goa Campus	July 04–06, 2018	National
4	Gupta N., Sharma S., Jaiswal S., Ahuja A., Chavan R., Abhilash K.	Selection of Suitable Mesh for Simulation of a Rectangular Microchannel Heat Sink with Different Fluids	1st Symposium and Workshop for Analytical Youth on Applied Mechanics (SWAYAM 2018)	BITS Pilani, K. K. Birla Goa Campus	July 04–06, 2018	National



S. No.	Authors	Title of Paper	Conference Name	Location	Date, Month and Year	National /International
	Tilak,Ranjit S. Patil					
5	Sachin Labishetty, Mahesh Dasar, Ranjit S Patil	Effect of Inlet Design Parameters of a cyclone separator on a fluid dynamic characteristics	1st Symposium and Workshop for Analytical Youth on Applied Mechanics (SWAYAM 2018)	BITS Pilani, K. K. Birla Goa Campus	July 04–06, 2018	National
6	Akshat Pagey, Robin Singh Chib, Lakshya Agarwal, Ranjit S Patil	Design and Optimization of single speed two-step reduction gearbox	1st Symposium and Workshop for Analytical Youth on Applied Mechanics (SWAYAM 2018)	BITS Pilani, K. K. Birla Goa Campus	July 04–06, 2018	National
7	Robin Singh Chib, S. Siddharth Kumar, M. Kaushik Reddy, Krishna Kamdi, Akash Rajawat, Ranjit S Patil	Design and Optimization of Wheel Assembly and Suspension Assembly	1st Symposium and Workshop for Analytical Youth on Applied Mechanics (SWAYAM 2018)	BITS Pilani, K. K. Birla Goa Campus	July 04–06, 2018	National
8	Kamath Aditya and Kulkarni D M	Transition between plane stress - plain strain conditions and the effect of plate thickness in extra deep drawn V-notch steel sheets	13th International Conference on Computational Structures Technology 2018	Sitges, Barcelona, Spain	4-6-Sept, 2018	International
9	Deopujari S and P.M. Singru	MEMS-Based Sensor at the Tip of the ET Tube	Society of Critical Care Medicine Congress ,	San Antonio, Texas, USA,	February 25-28, 2018	International
10	Himanshu Kishor, Narayan Manjrekar, Pravin Singru	Design of nonlinear damping assignment controller for semi active suspension systems	25th International Congress on Sound and Vibration (ICSV25)	Hiroshima, Japan	8 to 12 July 2018	International
11	Chandrshekhar Chavan, P.M. Singru, Radhika Vathsan	Experimental basis of the concept of sruti (microtones) in indian classical music using the sarasvati veena	25th International Congress on Sound and Vibration (ICSV25)	Hiroshima, Japan	8 to 12 July 2018	International
12	M. Sreedhar Babu, Shibu Clement, N.K.S. Rajan,	Adaptation of Air-Gas Regulator for Small Capacity Producer gas Engine	5th International Conference on Power and Energy Systems Engineering, CPESE 2018	Nagoya, Japan	19–21 September 2018	International
13	Sundar Ganesh, Kishore Gopalakrishnan, Shibu Clement	Numerical Isolation of Swirl and its Effects on the Flow Performance of Aggressive Inter-Turbine Diffusers	7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP)	IIT Bombay, Mumbai, India	December 10-12, 2018,	International
14	Pozhil S N, Sachin Waigaonkar,	Creep Studies on Rotational Moulding Materials using Time-Temperature-Superposition (TTS)	'Affiliation of Rotational Moulding Organisations (ARMO- 2018)	University of Hamburg Germany	September 16-18 2018	International
15	Mukund L. Harugade, Sachin D. Waigaonkar, Nikhil S. Mane and Narayan V. Hargude	"Magnetic Effect on High-Speed Electrochemical Discharge (HSECD) Engraving"	7th International and 28th All India Manufacturing Technology, Design And Research Conference 2018 (AIMTDR 2018).	Anna University, Chennai	December 13-15, 2018	International
16	N M Menon, G Seth, K Gupta, S N Pozhil, S D	Assesment of Impact Strength of Rotationally Molded Products	1st Symposium and Workshop for Analytical Youth on	BITS Pilani, K. K. Birla Goa Campus	July 04–06, 2018	National

S. No.	Authors	Title of Paper	Conference Name	Location	Date, Month and Year	National /International
	Waigaonkar		Applied Mechanics (SWAYAM 2018)			
17	Vatsa, K., Ajay, A. K., Patil, M., Simhachalam, B., Singh, V. and J. Nambi Krishnan,	Investigation of Electroless plating system for Sn-Zn alloy deposition	71st Annual Session of Indian Institute of Chemical Engineers, CHEMCON-2018	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India.	Dec. 27-30, 2018,	International
18	Patil, M., Simhachalam, B., Nallanukala, P. and Singh V.	Effect of Ultrasonic Vibrations on Tube Drawing Process Using FEA Method	NAFEMS India Regional Conference - NIRC 2018 Engineering Modeling, Analysis, Simulation & 3D Printing, Bangalore	Bangalore	July 20-21, 2018	International
19	Jain, N., Kumar, A. and Singh, V.	The effect of Six-Sigma Principles on athletic performance in Football	12th ISDSI (Indian Subcontinent Decision Sciences Institute) International conference	SPJIMR, Mumbai	Dec 27-30, 2018	International
20	Ravindra Singh Saluja and Varinder Singh	MADM based approach for selection of welding process for Aluminum tube manufacturing	International Conference in Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT)	SVNIT, Surat	Aug. 03-05, 2018	International
21	Sandeep Jose, C Lakshmana Rao, S. A. Krishnan, G., Sasikalaand	Sai Deepak N Numerical simulation of interfacial crack propagation in bimetallic welded joints using XFEM	Indian Conference on Applied Mechanics (INCAM) 2017	MNIT Allahabad	5- 7 July 2017	National
22	Manoj Kumar H, Rathnagirisairam kaushik, Sandeep Jose	Numerical analysis on controlling the post buckling behavior of cylindrical shells using mode splitting	SWAYAM 2018	BITS, Pilani Goa Campus	4th – 6 th July, 2018	National
23	Rathnagirisairam kaushik, Manoj Kumar H, Sandeep Jose	Active buckling control studies on columns using equivalent force model as piezoelectric actuators	SWAYAM 2018	BITS, Pilani Goa Campus	4th – 6 th July, 2018	National
24	Karthikeyan and Satish Mullya	Comparative study of Dielectric and Debris flow in Micro Electrical Discharge $\mu$ ED Milling process using Cylindrical and Slotted tools	AIMTDR	Anna University, Chennai	Dec 2018	Int
25	Karthikeyan, Nikhil kadam, DM Kulkarni	Microstructure And Mechanical Properties Of Atmospheric Plasma Sprayed 8Ysz Thermal Barrier Coatings	AIMTDR	Anna University, Chennai	Dec 2018	Int

**C. Conferences attended/papers presented: 25**

**D. Books Published/Edited during the year: 04**

S. no.	Name of publication/Name of the book	Details
1	Vikas Chaudhari, Harichandra Chandekar, Jayesh Saboo and Adlete Mascarenhas, "Studies on thermo-mechanical properties of chemically treated jute-polyester composite",	IOP Conf. Series: Materials Science and Engineering 330 (2018) 012032

S. no.	Name of publication/Name of the book	Details
2	K D Mali and P M Singru "Study on the Effect of the Impact Location and the Type of Hammer Tip on the Frequency Response Function (FRF) in Experimental Modal Analysis of Rectangular Plates"	IOP Conf. Series: Materials Science and Engineering: 330 (2018) 012102 doi:10.1088/1757-899X/330/1/012102.
3	Harichandra U. Chandekar, Vikas V. Chaudhari, Sachin D. Waigaonkar, and Narendra N. Ghosh, "Thermal and Dynamic Mechanical Analysis of Jute Polypropylene Composites",	Edited By Sajith Thottathil, Sabu Thomas, Nandakumar Kalarikkal, Didier Rouxel, Advanced Polymeric Materials for Sustainability and Innovations, published by Apple Academic Press, CRC press October 2018, page 349 to 358.
4	Sandeep Singh, B Babu, M Swathika, Tushar Sharma, Ranjit S Patil	Proceedings: First Symposium and Workshop for Analytical Youth on Applied Mechanics - 2018

#### E. Conferences, seminars & workshops conducted: 01

S. No.	Title	Date	Description
1	1 <sup>st</sup> Symposium and workshop for Analytical Youth in Applied Mechanics	04-06 July, 2018	Bi-Anneal Conference series of Indian Society of Applied Mechanics.

#### F. Invited Talks given by BITS faculty: 03

SI. No.	Authors	Host	Title	Date
1	Ranjit S Patil	Government College of Engineering Karad	International Winter Academy	December 13-21, 2018
2	Vikas Chaudhari	Training program at Visakhapatnam Steel Plant (VSP), Vizag	Fatigue, Fracture & Creep	30th & 31 Jan 2018
3	Vikas Chaudhari	Indrashil University, Rajpur Gujarat	3 days faculty development program on "Engineering Graphics with AutoCAD"	27th to 29th June 2018

#### G. Invited talks arranged in the department: 02

1. Prof. Sarit K Das, Director IIT Ropar and Prof. of Mechanical Engg, IIT Madras, delivered a talk on "Augmented Thermo Physical And Electromagnetic Transport Properties of Graphene Nanosuspensions" on 4<sup>th</sup> July 2018.
2. Dr. G Balu, Scientist 'H' & Outstanding Scientist Director, Aerodynamics, DRDL, Hyderabad delivered a talk on "Experimental Aerodynamics" on 10th November 2018.

#### H. Awards and recognitions won by faculty and students: 04

Sl. No.	Name	Association/Society member
1	Dr. Ranjit S Patil	Reviewer of Advances of Mechanical Engineering Journal of Sage Publishers (Impact factor 0.848, SCI, SCOPUS Indexed Journal)
2	Prof. Vikas Chaudhari	Reviewer for International Journal of Materials Engineering Innovation (IJMATEI) (23rd June to 27th July 2018)
3	Prof. Vikas Chaudhari	Became Secretary of Indian Institute of Metal (IIM) Goa Chapter in July 2018.
4	Dr. Kiran D Mali	ASME Member

#### I. Faculty Development, International Collaboration & Industry Immersion: 0

#### J. Significant new equipments/experimental facility added during the year: 2018

Significant equipment added during this year is as follows:

S.No.	Particulars
1.	Turbidity meter. Range: 0-1000 NTU
2.	Hydrometer, Dual scale, Range of specific gravity: 0.7-2.0
3.	Plate type heat exchanger, 16 Plates, Capacity: 10 LPM
4.	Flownex Software (14 Lakhs)
5.	Twin Cylinder (Dual Fuel / Turbocharged) Diesel Research Engine Set-up with Medhaavi Open ECU System (40 Lakhs)
6.	64 Channel Pressure Scanner (20 Lakhs)

S.No.	Particulars
7.	Acoustic Emission System and Accessories (13 Lakhs)
8.	UTM with Accessories BISS company (33 Lakhs)
9.	Computer Systems for research and academics (12 Lakhs)
10.	Kistler Dynamometer 9257B cutting force measurement.

**K. Departmental association/club activities:**

**B2.10.10 Department: Physics**

Number of faculty members (as on 31 December 2018): 16

Senior Professors, Professors	02
Associate Professors	08
Assistant Professors, Gr-I	06
Assistant Professors, Gr-II	00
Visiting Faculty	00

Head of the Department: Dr. Deepak Pachattu

Contact details: deepakpn@goa.bits-pilani.ac.in

Number of PhD Scholars: 21

Ph.D. Thesis Submitted during the year: 03

1. Bijeesh M M, 2010PHXE812G .
2. Dhavala Suri , 2013PHXF015G.
3. Mr. Selvaganapathy J, 2012PHXF0015G

**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 08

**(i) Ongoing projects:**

1. **Project Title:** OBSERVATIONAL SIGNALS OF QUANTUM GRAVITY IN CMB  
**Principle Investigator PI:** Kinjal Banerjee  
**Co-PI:** None  
**Funding Agency:** SERB  
**Amount:** Rs. 3.18 Lakhs  
**Duration:** March 2016 to Jan 2019
2. **Project Title:** Room Temperature Hydrogen Sensing and Storage using Reduced Graphene Oxide and MoS<sub>2</sub> Nanocomposite  
**PI:** E. S .Kannan  
**Co-PI:** None  
**Funding Agency:** SERB  
**Funding Amount:** Rs. 30 Lakhs  
**Project Duration:** March 2017 to March 2020
3. **Project Title:** Studies on biomolecular transport through nuclear pore complexes using a dual fluorescence channel confocal microscope  
**PI:** P. Nandakumar  
**Co-PI:** Meenal Kowshik  
**Funding Agency:** SERB  
**Funding Amount:** Rs. 44.04104 Lakhs  
**Project Duration:** March 2017 to March 2020

4. **Project Title:** Spin Seebeck Effect in novel heterostructures  
**PI:** R S Patel  
**Co-PI:** Dr. Pratap Kumar Sahoo and Dr. Kartik Senapati (NISER Bhubaneswar)  
**Funding Agency:** SERB, DST Govt. of India  
**Funding Amount:** Rs.51 Lakhs  
**Project Duration:** March 2017 to March 2020
5. **Project Title:** Ecofriendly Flexible CZTS Solar Cells  
**PI:** Teny Theresa John  
**Co-PI:** Prof. MK Jayaraj, CUSAT, Kochi  
**Funding Agency:** SERB  
**Funding Amount:** 29.25560 lakhs  
**Project Duration:** August 2017-August 2020
6. **Project Title:** An acoustic study, characterization and standardization of the Sarasvati Veena (EMR/2016/002338)  
**PI:** Pravin M Singru  
**Co-PI:** Radhika Vathsan  
**Funding Agency:** DST-SERB  
**Funding Amount:** Rs. 3695560  
**Project Duration:** March 2017- February 2020
7. **Project Title: To look for the signatures of space-time noncommutativity at high energy colliders**  
**PI:** PRASANTA KUMAR DAS  
**Funding Agency:** SERB, GOVT. OF INDIA  
**Funding Amount:** 18.85515 lakhs  
**Project Duration: 21st March 2017 - 20th March 2020**
8. **Project Title:** Study on Dark Energy, Dark Matter and Cosmic Acceleration of the Universe in Modified Gravity  
**PI:** GAURANGA CHARAN SAMANT  
**Co-PI:** PRASANTA KUMAR DAS  
**Funding Agency:** CSIR, GOVT. OF INDIA  
**Funding Amount:** 16.96 lakhs  
**Project Duration:** 1st May 2017 - 30th April 2020

**(ii) Projects sanctioned during the year:**

1. The department has been awarded a DST-FIST grant of Rs. 2.9 Crore.
2. Prof. Radhika Vathsan is part of a collaborative project of DST under their QuST initiative on "Geometric Aspects of Quantum Correlations in Dynamics", that has been accepted for funding

**(iii) Projects completed this year: NIL**

**B. Publications:**

**Journals / Publications (National / International)**

1. "Constraints on Light Dark Matter fermions from relic density consideration and Tsallis statistics", Atanu Guha and Prasanta Kr. Das, BITS-Pilani, Goa Campus, Journal of High Energy Physics(JHEP) 06, 139 (2018)
2. "An Extensive Study of Bose-Einstein Condensation in Liquid Helium using q-deformed Statistics" Atanu Guha and Prasanta Kr. Das, BITS-Pilani, Goa Campus, Physica A 497, 272-284 (2018).

3. "q-deformed Einstein model to describe specific heat of solid" Atanu Guha and Prasanta Kr. Das, BITS-Pilani, Goa Campus, *Physica A* 495, 18-29 (2018).
4. "Deconfinement of non-strange hadronic matter with nucleons &  $\Delta$ -baryons to quark matter in neutron stars", by Debashree Sen and T. K. Jha. (BITS Pilani, Goa Campus)(Accepted, In press), *Int. Journal of Modern Physics D*, (October, 2018).
5. "GW170817: constraining the nuclear matter equation of state from the neutron star tidal deformability", by Tuhin Malik (BITS Pilani, Goa Campus), N. Alam, M. Fortin, C. Providência, B.K. Agrawal, TK. Jha (BITS Pilani, Goa Campus), Bharat Kumar and S.K. Patra. *Physical Review C* 98, 035804 (2018).
6. "Defect and dopant induced room temperature ferromagnetism in Ni doped ZnO nanoparticles" Chithira P R and Teny theresa John, BITS-Pilani,Goa Campus, *J. Alloys and Compounds* 766, 572-583 (2018).
7. "Tuning the nonlinear optical absorption in Au/BaTiO<sub>3</sub> nanocomposites with gold nanoparticle concentration" M.M. Bijeesh, P.K. Shakhi, Geetha K. Varier and P. Nandakumar, *Optics and Laser Technology*, 102, 207–212 (2018).

**D. Books Published / Edited during the year: Nil**

**E. Conferences, seminars & workshops conducted: NIL**

**F. Invited Talks given by BITS faculty:**

**Papers presented/ Invited Talks in conferences/ Workshop/ School:**

1. Radhika Vathsan as a Long term visitor at the Institute for Quantum Computing, University of Waterloo, ON Canada from 1 June to 10 July, gave a talk titled "Subtle aspects of Quantum Information: complementarity and uncertainty" at Physics Department, University of Windsor, ON Canada on 26th June.
2. Prasanta Kumar Das:Visiting Research Professor at the Department of Physics & Astronomy, University of Kansas(KU), Lawrence, KS, USA during the period 19th May 2018 to 13th July 2018. Prof. Douglas Mckay and Prof. K C Kong were my KU hosts.
3. Prasanta Kumar Das gave a talk titled "*Nonequilibrium Statistical Mechanics and its Application in Astrophysics & Collider Physics*" on May 29, 2018 at 12:00 Noon, Malott hall, Department of Physics & Astronomy, KU. he was invited by Prof. Bhupal Dev of Department of Physics of Washington University(WU) at St.Louis, MO,USA. He gave a talk titled "*Nonequilibrium Statistical Mechanics, fermion dark matter and supernova SN1987A cooling*" on June 18, 2018 at 3 PM, A H Compton room, Department of Physics,WU.
4. Prasanta Kumar Das was invited by Prof. Bharat Ratra of Department of Physics, Kansas State University(KSU), Manhattan, Kansas City, USA. he gave a talk titled "*Tsallis statistics and its application in High Energy Physics and Astrophysics*" on June 22, 2018 at 3 PM, Department of Physics, KSU,USA.
5. Tuhin Malik, a Ph. D student of Tarun Kumar Jha, presented their work entitled, "Determination of the nuclear incompressibility and symmetry energy from neutron star tides", at the International DAE Symposium in Nuclear Physics (Dec 10 -14, 2018), BARC, Mumbai.

**G. Invited talks arranged in the department:**

1. Prof. Vijay.A. Singh, University of Mumbai, visited the Institute on 21<sup>st</sup> September 2018. He delivered Lecture on "The center of mass and the golden ratio in physics and aesthetics"
2. Dr. Aryesh Mukherjee, PhD Harvard University, Boston MA, visited the Institute on 3<sup>rd</sup> November 2018. He delivered Lecture on "Experimental studies in elastic hydrodynamic interactions"
3. Prof. Patrick Das Gupta, *Department of Physics and Astrophysics, University of Delhi*, visited the Institute on 3<sup>rd</sup> November 2018. He delivered Lecture on "Supermassive black holes from Bose-Einstein condensates of dark matter".
4. Prof. Rajeev Ahuja, Department of Physics-Uppsala University, Sweden, visited the Institute on 8<sup>th</sup> November 2018. He delivered Lecture "on Hydrogen storage materials for mobile application"
5. Prof. Deshdeep Sahdev, Quazar Tech and ex faculty from IIT Kanpur, visited the Institute on 30<sup>th</sup> October 2018. He delivered a Lecture on "A HANDS-ON APPROACH TO STRENGTHENING OUR SCIENTIFIC ECOSYSTEM"
6. Prof.Narayan Rao, University of Hyderabad visited the Institute on 2<sup>nd</sup> November 2018. He delivered Lecture "optical field enhancement in 1d-photonic crystals".
7. Prof. Partha Konar, Physical Research Laboratory, Ahmedabad visited the Institute on 15<sup>th</sup> May 2018. He delivered Lecture "Unmasking Obscure events at the LHC".

8. Prof. Sachindeo Vaidya, IISc Bangalore visited the Institute on 16 MAY 2018. He delivered Lecture on "What is common between Robotics and Low Energy QCD?"
9. Prof. Saurabh Basu, IIT Guwahati, visited the Institute on 6 March 2018. He delivered Lecture on "Topology and Condensed Matter Physics".
10. Dr. Amin Ahmad Nizami, IISc Bangalore, visited the Institute on 5 March 2018. He delivered Lecture in department.
11. Prof. Pratap Raychaudhuri, Tata institute of Fundamental Research, Condensed Matter Division, visited the Institute on 25 January 2018. He delivered Lecture on "Melting of the vortex lattice in type II Superconductors - A story from images"

**Department Seminar Series (Faculties and Students) :**

- Topic : Quantum Field Theories in Lifshitz Spacetime  
Speaker: Ms. Akhila Mohan  
Chair Person: Mr. Tuhin Malik  
Date and Time: 18th August 12 pm.
- Topic : X-ray technique- A boon for researchers  
Speaker: Ms. P. Chithira  
Chair Person: Mr. Deepak Kumar  
Date and Time: 25th August 12 pm
- Topic : CONFOCAL MICROSCOPY AND ITS APPLICATION IN BIOLOGY  
Speaker: Ms. P. Shakhi  
Chair Person: Ms. Debashree  
Date and Time : 8th September 12 pm
- Topic : Exploring the invisible sector of our universe  
Speaker : Mr. Atanu Guha  
Chair Person : Ms. Akhila Mohan  
Date and Time :15th September 12 pm
- Topic : Error estimates of theoretical model – a guide  
Speaker : Mr. Tuhin Malik  
Chair Person : Mr. Sumit Kumar  
Date and Time: 22nd September 12 pm
- Topic : Synthesis, properties and application of 2d TMDC materials  
Speaker : Ms. Anu Roshini  
Chair Person : Mr. Aditya Kumar  
Date and Time 29th September 12 pm
- Topic : CONSTRAINED HAMILTONIAN SYSTEMS  
Speaker : Mr. Aditya Sharma  
Chair Person : Mr. Atanu Guha  
Date and Time 20th October 12 pm

**H. Awards and recognitions won by faculty and students:**

- Prof. Arun V Kulkarni is now the Vice - President of the Western Zone of the IAPT (Indian Association of Physics Teachers) comprising of 4 of the Western states in India viz. Goa, Maharashtra, Gujarat and Rajasthan.
- 7 students from our department, Ms. Vibha Balaji, Mr. Ankit Agarwal, Mr. Pawan Chawhan, Mr. Chiranjeev Jadeja, Mr. Raghav Arora, Mr. Parth Padia and Mr. K. Karthik were the national level toppers in the National Graduate Physics Examination (NGPE) exam conducted by IAPT.
- The following students were the recipient of the below-mentioned Fellowships:

1. Charpak Scholarship - Mr. Rachith Aiyappa
2. KVPY - Mr. Alok Gokhale, Mr. Ashwin Kumar K
3. GN Ramachandran Fellowship for Young Scientists 2018 - Ms. Ish Mohan Gupta

**I. Faculty Development, International Collaboration & Industry Immersion:** A. V. Kulkarni and Deepak Pachattu are part of the international collaboration, PANDA (antiproton annihilations at Darmstadt)

**J. Significant new equipment's / experimental facility added during the year: Nil**

**K. Departmental association / club activities:**

- The NGPE exam of IAPT was conducted by the department on 21 January 2018
- The student club Celestia is involved in many ongoing activities/projects such as: Project Radio Telescope, Project Kratos, Tesla Coil Slayer, Schieren Photography, Michelson Interferometer, Sonoluminescence, etc. The club also conducted frequent night-sky observations, two tele-presence talks, a mini astronomy festival (storming aurora) under which two on-campus talks were given by Prof. Patrick Das Gupta (Delhi University) and Dr. Nandivada (Director, Nehru Planetarium, Delhi) and also a quiz called the Stellar Quiz were held.

## B2.11 DIVISION / UNIT/ CENTRE-WISE ACTIVITY

### *Alumni Relations Cell*

#### *Distinguished Alumnus Award 2018:*

"BITS Pilani Distinguished Alumnus Award" in 2018 to the following alumni:

	<p><b>Prof. REENA AGARWAL</b>, Vice Provost for Faculty, McDonough Professor of Finance &amp; Director, Georgetown Center for Financial Markets and Policy, Georgetown University, USA</p> <p>- for <b>Academia and Research</b></p>
	<p><b>Prof. PRABHU PINGALI</b>, Professor and Director, Tata-Cornell Agriculture and Nutrition Initiative, Cornell University, USA</p> <p>- for <b>Academia and Research</b></p>
	<p><b>Prof. ARUN SOMANI</b>, Anson Martin Distinguished Professor of Electrical &amp; Computer Engineering, Iowa State University, USA</p> <p>- for <b>Academia and Research</b></p>



	<p>Mr. AJOYENDRA MUKHERJEE, EVP &amp; Head - Global HR, Tata Consultancy Services, India</p> <p>- for <b>Corporate Leadership</b></p>
	<p>Ms. PRASANNA GOPALKRISHNAN, Executive Vice President, Chief Digital and Information Officer, Boston Private, USA</p> <p>- for <b>Corporate Leadership</b></p>
	<p>Dr. ANAND S RAO, Innovation Lead (Data &amp; Analytics) &amp; Partner, Pricewaterhouse Coopers, USA</p> <p>- for <b>Corporate Leadership</b></p>
	<p>Mr. ANUPENDRA SHARMA, Global VP of Growth &amp; Business Development, Siemens Healthineers, USA</p> <p>-for <b>Entrepreneurship</b></p>
	<p>Mr. TUSHAR JAIN, Founder and Group CEO, Automat Industries Ltd</p> <p>-for <b>Entrepreneurship</b></p>

This is in recognition of their significant and outstanding contributions to **Academic and Research, Corporate Leadership or Entrepreneurship**.

***BITSians Day:***

'BITSians Day' was celebrated on 3<sup>rd</sup> August, 2018. A BITS – RUN (Marathon) was organized on the same day to celebrate the spirit of "Once a BITSian, Always a BITSian".

**Embryo & On-campus Lectures:**

Alumni Relations Cell of BITS Pilani K K Birla Goa Campus has organized the following Embryo & On-campus talks from January – December, 2018. Details are as follows:

S. No	Date	Title Of The Talk	Speaker's Name
1	19 <sup>th</sup> – 20 <sup>th</sup> Jan, 2018	Alumni Research Talks	Ms. Priyanka Kukreja, Mr. Nigamant Sridhar, Mr. Narendra Ahuja Mr. Rishabh Mehrotra
2	25 <sup>th</sup> Jan, 2018	GRE Champs	Mr. Soham Kelkar, Mr. Anand Dugad Ms. Rujuta Kelkar Mr. Jash Kamdar
3	3 <sup>rd</sup> Feb, 2018	CAT Champs	Ms. Suneha Bagri Ms. Rujuta Kelkar, Mr. Prathmesh Gabale
4	23 <sup>rd</sup> Feb, 2018	Cognition and Computation	Mr. Raghavendra Singh
5	10 <sup>th</sup> – 11 <sup>th</sup> Apr, 2018	DATRI: Stem Cell Donations Awareness and Registration sessions	Mr. Raghu Rajagopal
6	18 <sup>th</sup> Apr, 2018	Deep Learning Methods in Imaging and Computer Vision	Mr. Tejas Gokhale
7	20 <sup>th</sup> Apr, 2018	Digital Video Entertainment in India	Mr. Smit Vora
8	2 <sup>nd</sup> May, 2018	Cognitive Analysis using Dermatoglyphics	Mr. Sriram Ramaswamy, Mr. Rahul Ramachandran
9	13 <sup>th</sup> Aug, 2018	Talk on UPSC and his experiences	Mr. Ayush Sinha
10	27 <sup>th</sup> Sept, 2018	BITS2MSPHD	Mr. Abhishek Manikonda
11	17 <sup>th</sup> Oct, 2018	GRE Champs	Mr. Sharangdhan Bhav Ms. Veena Vijai Mr. Atharva Joshi

**Metanoia:**

Keeping in mind its resolute mission to keep the alumni of BITS connected to their Alma mater and to maintain the integrity and strength of the vast alumni community, Alumni Relations Cell conducted the fourth edition of the annual BITS Alumni Summit: Metanoia: The journey of Change 2018 on 25<sup>th</sup> of August, 2018. The speakers reminisced about their life back at BITS campuses and their journey thereafter.

Seven speakers who were invited are:

1. Surabhi Dewara, Founder and CEO of careerguide.com
2. Sameer Qayoom, BITSAA 30 under 30 award winner and founder of a Football start-up in Kashmir
3. Chintan Zalani, A renowned writer, blogger and content marketer
4. Jatin Adlakha, Founder and Director of Wander Gupt
5. Shruthi Vishwanath, A musician, educator and composer
6. Mani Shankar, A Bollywood director, holographic technology expert, writer and speaker.
7. Prithviraj Chavan, An Indian politician who was the 17th Chief Minister of Maharashtra

**Research Scholarship:**

One of our alumni Mr. Satish Sankaralingam initiated a research scholarship for BE students and an amount of Rs. 15,000/- was awarded to Manan Sarupria, Sahir Gill and Sanjeev Sripadraj Murthy and were awarded, Rs. 7500/-, Rs. 5000/- and Rs. 2500/- respectively as recognition to their research work.

**Summer Internship Assistance:**

This assistance is offered to encourage students to conduct **summer research** at educational / research institutions across India (including BITS' campuses). The following are the winners of the first edition of this assistance:

Name & ID number	Internship at	Award money
Vivek Khanna (2015A1PS0670G)	IIT Bombay	Rs. 17000
Sachita Nishal (2016A7PS0719G)	IIT Madras	Rs. 17000
Aditya Sinha (2015B3A70352G)	IISc Bengaluru	Rs. 8500
M Vaishnav (2015A1PS0548G)	IISc Bengaluru	Rs. 8500

S. No	NAME	ID. No	Place of thesis work
1	SrinathRamkumar	2013B1A10907G	Max Planck Institute for Heart and Lung Research, Germany
2	Narayan Bhutada	2012B1A10621G	Absentia Virtual Reality Pvt. Ltd. Karnataka 560067
3	ArunavKonwar	2013B1A8905G	IRISA/Inria Rennes, France
4	Amey Desai	2014A3PS0758G	University of Leeds, UK LS29JT
5	Mridul Seth	2013B4A8662G	University of Namur, Belgium
6	PrabhuneRhushikeshAnand	2013B5A80456G	Telecom Sud Paris France
7	Samyak Dhole	2013B2A80877G	IIT Bombay
8	SrijaniBiswas	2013B1A40749G	Indian Institute of Science, Bangalore
9	GauravNarula	2013B3A70516G	EcolePolytechniqueFederale de Lausanne, Switzerland
10	SumitArya	2013B2A40882G	BHEL, Haridwar
11	TulasiRavindran	2013B2A1689G	University of Connecticut
12	AparajitaHaldar	2013B4A70776G	Johns Hopkins University Baltimore
13	M Ramchandran	2013B4A70541G	Cornell University USA
14	AabirAbubakerKar	2013A4B50280G	NECSI New England complex Systems institute, Cambridge
15	VedangiBhadreshPathak	2013A3B50179G	Leibniz university Hannover
16	Shannawaz Ahmed	2013B5A3466G	Center for Emergent Matter Science, Japan
17	Advait	2013B1A70656G	Icahn School of Medicine at Mount Sinai, USA
18	SimantaLahkar	2013B5A40913G	Shanghai Jiao Tong University China
19	Ryan Dsouza	2014A3PS0764G	Indian Institute of Technology, Delhi
20	Vikas Mishra	2013B3A30497G	Max Planck Institute for Software systems Kaiserslautern
21	Dhruv Jain	2013B3A70826G	Bertelsmann Noida - 201301
22	Tanuja Sunil Sawant	2013B5A70658G	Microsoft Research Lab India Pvt. Ltd Bangalore 560001
23	AnkitUdaya Kumar	2013A3B50073G	Nation Taiwan University, Taipei, Taiwan
24	AnanyaKshatrapatiShivaditya	2013B1A70792G	Solar Energy Research Institute of Singapore
25	ShreyanshPremchandChhajer	2014A3TS0141G	IIT Madras
26	R HarikrishnanUnnithan	2014A3TS0181G	IIT Madras
27	Akhil John	2013B5A40472G	IIT Hyderabad
28	Vishal Suriyanarayanan	2013B5A4840G	Tata Institute of Fundamental Research Mumbai
29	ShubhVachher	2014A8PS0471G	Tsinghua University, Beijing China
30	Shruthi Joshi	2014A8PS0166G	Indian Institute of Science, Bangalore Bangalore, Karnataka
31	SairajKhope	2014A8PS0498G	University of California- Santa Barbara
32	Sangeeth S. Varma	2013B5A3470G	IISER Thiruvananthapuram
33	YashShailesh Mehta	2014A7PS0103G	Nanyang Technological University
34	Achyudh Ram K	2013B3A70439G	University of Waterloo Canada
35	DhruvPassey	2014A7PS0020G	Arcesium India Pvt. Ltd Hyderabad, Telangana
36	AmitAgarwal	2014A7PS0403G	Nanyang Technological University, Singapore
37	Onkar M Joshi	2014A1PS647G	IIT Bombay
38	ApurvaBhandari	2013B1A70868G	National university of Singapore
39	OmkarKulkarni	2014A7PS0034G	Singapore University of Technology and Design
40	PathikritGhosh	2014A7PS0105G	INRIA, France
41	MuraliAniruddhan	2014A7PS0054G	Chennai Mathematical Institute, Chennai
42	RajatAgarwal	2013B2A70866G	Microsoft Research, Bangalore
43	ChiragRamdasPabbaraju	2014A7PS0393G	Microsoft Research, Bangalore
44	IshaniGhose	2014A7PS0068G	Microsoft Research, Bangalore
45	VicharShroff	2013B4A80590G	International centre for Entrepreneurship and Technology Gujarat
46	Harsh Malaiya	2013B4A8590G	Indian Institute of Information Technology, Jabalpur
47	Chetan Reddy	2013B4PS0500G	International centre for Entrepreneurship and Technology Gujarat
48	Namrata A Shettar	2013B4A70668G	Max Planck Institute for Brain Research - Germany
49	AviWadhwa	2014B5PS0897G	Tata Institute of Fundamental Research Mumbai
50	AbhinavTripathi	2014B5PS0901G	Indian Institute of Science, Bangalore
51	Shivangikamat	2013B5A30726G	Tata Institute of Fundamental Research Mumbai

S. No	NAME	ID. No	Place of thesis work
52	SanjanaSekhar	2013B5A7589G	Centre de Physique Des Particules De Marselli Cedex
53	GauravGude	2014A4PS0129G	Indian Institue of Technology Bombay
54	RadhikaPillai	2014A4PS0180G	Media.Net Software Services (I) Pvt. Ltd. Bengalure
55	ShardoolKulkarni	2012B5A40563G	IIT Bombay
56	Shantanu Sharma	2013B5A40870G	Tata Institute of Fundamental Research Mumbai
57	Karthik	2014A4PS0135G	Siemens Technology& Services Pvt. Ltd Bangalore 560100
58	Chaitrakachare	2016H1290007G	Lupin Limited, Biotech Division Pune
59	KapilSawant	2013B5A40604G	CNRS-Laboratoire d'Analyse et d'Architecture des Systemes (LAAS), France
60	ShivamBajpai	2013B2A80771G	Hindustan Unilever Pvt. Ltd. Goa
61	ShouryaAgarwal	2013B1A70895G	SattvaMedTech. Bangalore
62	AnimeshOkhade	2013B3A10575G	Indian Institute of Science Education and Research Bhopal

#### **Prof. Suresh Ramaswamy Memorial Awards:**

This year's Prof. Suresh Ramaswamy Memorial Award was given to the project titled, "Design optimization of automobile crash box to improve performance test "done by Muskan Taneja. This project was selected out of the 10 projects that had competed.

#### **Prof. S S R Memorial Teaching excellence Award:**

This year's Prof. Prof. SSR Memorial Teaching Excellence Award was awarded to Prof. Biju Raveendran of department of CS & IS, BITS Pilani K K Birla Goa Campus.

#### **Regular Activities:**

Other regular activities like bi-annual Director's Tea Party, batch snap sessions, Alumni Relations Cell registrations, souvenir distributions, bringing out the yearbook 'Melange' for out-going students, hosting visiting alumni on campus, etc.

#### **ACADEMICS AND RESOURCE PLANNING**

The Academics and Resource Planning (ARP) Division at the BITS Pilani, K K Birla Goa Campus looks after the introduction of new courses , change and addition to the pool of discipline electives, change in pre requisites, change in the course description, formulation of new minor programs, curriculum redesign and running of edX courses. Ever since its inception in the campus at the beginning of the year 2014, a number of activities have been carried out. An office for the same has been established with recruitment of a Non-Teaching Staff as an Office Assistant.

The Division has also been involved in the creation of the Departmental Committee on Academics (DCA) and the ccDCA members for the Goa Campus. The division also help to enlighten the faculty members about edX courses and the mode of delivery and various aspects related to this teaching platform and pedagogy. Various actions related to introduction of a number of the courses in the edX platform including MOOCs , curriculum appraisal, new minor programmes etc. were taken up in the past year and several more are going to be taken up in the present year as part of Departmental activities.

Number of Courses from various departments were sent for Approval to Senate in the Year 2018-19

- Biochemical Engineering
- Introduction to Nano Science & technology
- Nanobiotechnology

#### **CURRICULUM REVIEWS HELD AT GOA CAMPUS:**

The following Curriculum Reviews were conducted for the academic year 2018-19.

Curriculum Review for EEE Department was conducted on 24th of March, 2018 at K K Birla Goa Campus. Prof. Baylon G. Fernandes an expert from EEE Department ,IIT Bombay, had visited our campus.

**ACADEMIC GRADUATE STUDIES & RESEARCH DIVISION**

- **First Degree Thesis off Campus list Second Semester 2017 -2018**
- **First Degree Thesis on Campus list Second Semester 2017 -2018**

S.No	Name	ID. No	Name Supervisor	Organization
1	Harish C	2013B4PS0518G	Dr. Himadri Mukherjee	BITS-Pilani K.K Birla Campus
2	Kushagra Hans	2013B5A4426G	Prasanta Kumar Das	BITS-Pilani K.K Birla Campus
3	Kishore k.B	2014A7PS0012G	Prof. Bharath M. Deshpande	BITS-Pilani K.K Birla Campus
4	DishantBanwari	2013A3B2186G	Dr. Amrita Chatterjee	BITS-Pilani K.K Birla Campus
5	SiddharthHarshe	2013B5A80650G	Dr. Chandrew Sharma	BITS-Pilani K.K Birla Campus
6	Ishan Mishra	2013B4A4644G	ShilpaGandhali	BITS-Pilani K.K Birla Campus
7	GauravHaloi	2014A7PS095G	Dr. Geetha B	BITS-Pilani K.K Birla Campus
8	VaradDeshpande	2013B4A7829G	Dr. Prabal Paul	BITS-Pilani K.K Birla Campus
9	B.T. Prabhu	2014B4PS454G	Himadri Mukherjee	BITS-Pilani K.K Birla Campus
10	Siddharthlyer	2013B4A8836G	Dr. ShilpaGandhali	BITS-Pilani K.K Birla Campus
11	AnshikaSahu	2014A4PS0390G	Dr. SachinWaigonkar	BITS-Pilani K.K Birla Campus
12	SiddharthPaliwal	2013B5A4285G	Dr. KinjalBanrejee	BITS-Pilani K.K Birla Campus
13	Vaibhav Sharma	2013B3A40398G	Dr. Aswini Kumar Mishra	BITS-Pilani K.K Birla Campus
14	AkshayJha	2013B2A80770G	ShashidharaMechaKotian	BITS-Pilani K.K Birla Campus
15	Nikhil Jain	2013B4A40591G	Dr. Varinder Singh	BITS-Pilani K.K Birla Campus
16	Avinash Kumar Rai	2013B3A30594G	DebasisPatnaik	BITS-Pilani K.K Birla Campus
17	DivyanshuShirishSaraph	2013B5A40768G	Dr. Chandrew Sharma	BITS-Pilani K.K Birla Campus
18	UmeshPathak	2013B1A80805G	Dr. SukantaMondal	BITS-Pilani K.K Birla Campus
19	MatchaRakeshVarma	2013A3PS0299G	Sarang C Dhongdi	BITS-Pilani K.K Birla Campus
20	NimjeAnkit Sanjay	2013ASPS0697G	De.Ramprasad Joshi	BITS-Pilani K.K Birla Campus
21	AnshulSandhu	2014A4PS0262G	Dr.Varinder Singh	BITS-Pilani K.K Birla Campus
22	Ponugoti Nikhil	2014A4PS0219G	Dr.Chandrew Sharma	BITS-Pilani K.K Birla Campus

- **First Degree Thesis on Campus list First Semester 2018-2019**

S.No	Name	ID No	Faculty	Organization
1	Tushar Cornelius	2014B1A30858G	Dr. Veeky Baths	BITS-PilaniK.K.Birla Goa campus
2	Rahul Bhateja	2014B1A30943G	Dr. RaviprasadAduri	BITS-PilaniK.K.Birla Goa campus
3	SubratPathak	2014B1PS0932G	Dr. Veeky Baths	BITS-PilaniK.K.Birla Goa campus
4	Siddharth Das	2014B1A10857G	Dr.S.S.Baral	BITS-PilaniK.K.Birla Goa campus
5	Sourav Kumar	2015A1PS0666G	Dr. Vivek R	BITS-PilaniK.K.Birla Goa campus
6	Ranit Banerjee	2014B2A10879G	Anirban Roy	BITS-PilaniK.K.Birla Goa campus
7	MayankSurendraBhandarkar	2014B5A10898G	Dr. Richasinghal	BITS-PilaniK.K.Birla Goa campus
8	Ajay A Kumar	2015A1PS0301G	Dr. JegathaNambi Krishnan	BITS-PilaniK.K.Birla Goa campus
9	AbhinandGopal	2014B4A70632G	Prof. AshwinSrinivasan	BITS-PilaniK.K.Birla Goa campus
10	AdityaAgarwal	2014B1A70868G	Dr. Bharat M Deshpande	BITS-PilaniK.K.Birla Goa campus

S.No	Name	ID No	Faculty	Organization
11	Mahesh Hada	2014B3A70963G	Dr. Sanjay K Sahay	BITS-PilaniK.K.Birla Goa campus
12	ShubhamPradhan	2014B5A70807G	Dr. Veeky Baths	BITS-PilaniK.K.Birla Goa campus
13	Vishal Agrawal	2014B5A70566G	Dr. A Baskar	BITS-PilaniK.K.Birla Goa campus
14	ShivamAgarwal	2014B3A70938G	Dr. Veeky Baths	BITS-PilaniK.K.Birla Goa campus
15	Anshul Sharma	2014B3A70926G	Dr. Sanjay K Sahay	BITS-PilaniK.K.Birla Goa campus
16	Akash Gupta	2014B2A70881G	Dr. Sanjay K Sahay	BITS-PilaniK.K.Birla Goa campus
17	Bharat Arora	2014B3A70629G	Prof Bharat M Deshpande	BITS-PilaniK.K.Birla Goa campus
18	BauskarAdwaitJitendra	2014B4A70595G	Dr. SantonuSarkar	BITS-PilaniK.K.Birla Goa campus
19	SonawaneAjinkyaLakhan	2014B1A70940G	Dr. SumitBiswas	BITS-PilaniK.K.Birla Goa campus
20	Kartikeya Kumar Jain	2014B4A70913G	Dr. SumitBiswas	BITS-PilaniK.K.Birla Goa campus
21	KshitizAgarwal	2014B3A80794G	Dr. DebasisPatnaik	BITS-PilaniK.K.Birla Goa campus
22	MayankMarocha	2015A3PS0284G	Dr. Nitin Sharma	BITS-PilaniK.K.Birla Goa campus
23	Abhinav Singh	2014B2A30955G	Dr. Nitin Sharma	BITS-PilaniK.K.Birla Goa campus
24	Yogendra Singh Chouhan	2014B2A30786G	Dr. Biju K R	BITS-PilaniK.K.Birla Goa campus
25	VikramadityaKukreja	2015A3PS0209G	Prof. D M Kulkarni	BITS-PilaniK.K.Birla Goa campus
26	SarthakAgarwal	2015A8PS0368G	Dr. Anita Agrawal	BITS-PilaniK.K.Birla Goa campus
27	Rishabh Jain	2015A3PS0232G	Dr. Amline Prince	BITS-PilaniK.K.Birla Goa campus
28	SoniSaloni	2014B4A30575G	Dr. Veeky Baths	BITS-PilaniK.K.Birla Goa campus
29	Gandhi PrasheelChetan	2014B4A10235G	Dr. J K Sahoo	BITS-PilaniK.K.Birla Goa campus
30	AbhirajSaxena	2014B4A70680G	Dr. Himadri Mukherjee	BITS-PilaniK.K.Birla Goa campus
31	Himanshuagarwal	2014B4A30578G	Dr. Himadri Mukherjee	BITS-PilaniK.K.Birla Goa campus
32	ShubhamGarg	2014A4PS0302G	Dr. Sandeep Jose	BITS-PilaniK.K.Birla Goa campus
33	MayankMaruka	2014A4PS0324G	Prof. D M Kulkarni	BITS-PilaniK.K.Birla Goa campus
34	GhanshyamTripathi	2014A4PS0359G	Dr. Sandeep Singh	BITS-PilaniK.K.Birla Goa campus
35	Narayanan M Menon	2015A4PS0333G	Dr. Sachin D Waigaonkar	BITS-PilaniK.K.Birla Goa campus
36	PrateekNagvani	2014B5A40706G	Dr. PritanshuRanjan	BITS-PilaniK.K.Birla Goa campus
37	Samyak Jain	2014B5A40790G	Dr. PritanshuRanjan	BITS-PilaniK.K.Birla Goa campus
38	SukritGaira	2014B3A40515G	Dr. G Karthikeyan	BITS-PilaniK.K.Birla Goa campus
39	Miheer Joshi	2015A4PS0354G	Dr. Kiran Mali	BITS-PilaniK.K.Birla Goa campus
40	AneeshDandime	2014B2A40890G	Dr. Kiran Mali	BITS-PilaniK.K.Birla Goa campus
41	Divya Mishra	2014B4A40337G	Dr. PritanshuRanjan	BITS-PilaniK.K.Birla Goa campus

S.No	Name	ID No	Faculty	Organization
42	Vishnu Suresh Nair	2014A4PS0336G	DrRavindra Singh Saluja	BITS-PilaniK.K.Birla Goa campus
43	ShantanuGontia	2014A3B50178G	Dr. Prasanra Kumar Das	BITS-PilaniK.K.Birla Goa campus
44	MadhurDodeja	2014B5A30669G	Dr. Toby Joseph	BITS-PilaniK.K.Birla Goa campus
45	Harsh Mavani	2014B5A30899G	Dr. RadhikaVathsan	BITS-PilaniK.K.Birla Goa campus
46	EDURINTI RANA PRATHAP REDDY	2014A7PS0092G	Dr. RamPrasad S Joshi	BITS-PilaniK.K.Birla Goa campus
47	Om Athalye	2014B4A80605G	Himadri Mukherjee	BITS-PilaniK.K.Birla Goa campus
48	P Praveen Ranganath	2014B2A10883G	Dr. RajagopalVellingiri	BITS-PilaniK.K.Birla Goa campus

SNo.	Name	ID No	Place of Thesis
1	HeerVipulJoisher	2014B1A30709G	Massachusetts Institute of Technology, Cambridge
2	ShabadLamba	2014B1A30663G	IIIT, Hyderabad
3	Urvashi Jain	2014B1A70697G	Stanford University
4	Nissim Gore Datar	2014B1A40939G	California Institute of Technology
5	BhargaviBhat	2015A1PS0618G	Indian Institute of science
6	ChahatAggarwal	2015A1PS0692G	Indian Institute of Science, Bangalore
7	SomnathSandeep	2015A1PS0651G	Johns Hopkins University
8	BhavyaJaiswal	2015A1PS0721G	IIT Delhi
9	VivekKhanna	2015A1PS0670G	Indian Institute of technology, Bombay
10	AravindSatish	2015A1PS0564G	Center for study of Science technology and policy
11	MananSarupria	2015A1PS0734G	National University of Singapore
12	AvinashLaddha	2014B2A10715G	A K Spintex Ltd
13	AdityaKamath	2014B2A40783G	National University of Singapore
14	PiyashiBiswas	2014B2A30889G	Texas A&M University
15	Vinamra Bhatia	2015A7PS0090G	National University of Singapore
16	RohanGajendragadkar	2014B3A70415G	Indian Institute of science Bangalore
17	JashKamdar	2015A7PS0119G	Samssara Capital Technologies Pvt Ltd
18	Gautam M Naik	2015A7PS0029G	Nanyang Technological University
19	YashPandya	2014B4A70914G	Informatics Research institute of toulouse(IRIT)
20	RohitKaushik	2015A7PS0115G	University of Zurich
21	VedangAnandWaradpande	2015A7PS0028G	Nanyang Technological University Singapore
22	Pooja Consul	2015A7PS0058G	Indian Statistical Institute, Kolkata
23	Annie Ray	2014A7B50087G	University of Waterloo
24	AdityaAsgaonkar	2015A7PS0043G	University of Southern California, California
25	Pranav S Palande	2015A7PS0081G	Indian Institute of science(IISc)
26	Piyush Gupta	2014B3A70484G	Indian statistical institute delhicentre
27	AtulShanbhag	2014B2A70959G	Singapore University of Technology and Design (SUTD) Singapore
28	AkshayJagatap	2014B5A70808G	Indian Institute of science
29	Tejas Bhatia	2015A7PS0111G	University of Alberta
30	SourabhMajumdar	2015A7PS0078G	Fondazione Bruno Kessler
31	AkhileshSiddhanti	2014B4A70894G	ISI Kolkata
32	Krishna Acharya	2015A7PS0675G	University d'Avignon
33	Pratik M Joshi	2015A7PS0019G	Microsoft Research India

SNo.	Name	ID No	Place of Thesis
34	KathanKashiparekh	2014B3A70792G	TCS research, TATA Consultancy services ltd
35	SnehaMadle	2014B5A70705G	IIT-Madras
36	Nikhil Vijay Khedekar	2015A7TS0075G	University of Nevada, Reno
37	Apeksha Jain	2014B4A70623G	Stevens Institute of Technology, Hanlol Financial Systems Lab
38	Samarth Mehrotra	2015A7PS0062G	The University Of Melbourne
39	KashishMalhotra	2014B3A30590G	Indian Institute of Science (IISc), Bangalore
40	Prabhat C	2014B3A10368G	IIM Bangalore
41	AshuTayal	2014B3A30510G	Indian Institute of Management Bangalore
42	Amith P	2014B3A70419G	Indian Institute of science Bangalore
43	CaculoSriyashMahendra	2015A8PS0439G	Nanyang Technological University
44	Selwyn Gomes	2015A8PS0420G	The University Of Melbourne
45	SaloniOswal	2015A8PS0332G	KTH KungligatekhniskahogskalanSweden
46	AdvaitGadhikar	2015A3PS0215G	Indian Institute of science Bangalore
47	Abhinav Singh	2015A3PS0288G	Instituto Superior Tecnico (IST)
48	Sarthak Singh	2014B2A80710G	Office of JayantSinha-Hon'ble minister of state for civil aviation and member of parliament Hazaribagh
49	R V SaiPrudhvi	2015A3PS0127G	Massachusetts Institute of technology
50	UtkarshSarawgi	2015A8PS0302G	Massachusetts Institute of technology
51	AbhishekKhare	2015A3PS0217G	control Instrumentation division, BARC Mumbai
52	R S Surya	2015A3PS0225G	TIFR ( Tata Institute of Fundamental Research)
53	SiddheshTiwari	2015A8PS0490G	MNNIT-Allahabad
54	SebastinSanty	2015A8PS0357G	Carnegie Mellon University
55	Jain Honey Ashok	2014B1A30875G	Evolutionary cell and systems biology
56	Sammit Jain	2014B4A30909G	Graduate Center, City University of New York (CUNY)
57	ShivanKhullar	2014A8B50373G	Australian National University
58	Vasu Gupta	2015A3PS0166G	Technion-Israel Institute of technology, Haifa, Israel
59	PatilSiddhantVitthal	2015A8PS0475G	TechnischeUniversitat Dresden
60	Suparno Pal	2015A3PS0198G	Indian Institute of Science Bangalore
61	Aastha Patel	2015A3PS0143G	Indian Institute of Techonology Bombay
62	PasupuletiSuryachandra Prasad	2014B2A30949G	International Institute of information technology Hyderabad
63	EvamGilotra	2014B1A30933G	Karlsruhe Institute of Techonology, Germany
64	Glenn Jacob Fernandes	2014B1A30937G	Indian Institute of Science, Bangalore
65	Shubham Kumar	2015A3PS0158G	Instituto Superior Tecnico (IST)
66	ArchitKapoor	2015A8PS0432G	UNSW Sydney
67	SiddharthSomani	2014B4A80911G	Indian Institute of Management Ahmadabad
68	ShreyaArya	2014B4A70866G	Inria Sophia AntipolisMediterranee
69	AshutoshSaboo	2014B4A70427G	Polytechnique Montreal, Canada
70	AadityaVikasVaze	2014B4A70603G	University of Toronto
71	Manu Saraswat	2014B4A70782G	IGMM-CNRS, University of Montpellier
72	DevashiGulati	2014B4A70689G	Western University Ontario
73	Kushal P	2014B4A70624G	Chennai Mathematical Institute
74	Sanyam Mehta	2014B4A70526G	Indian Institute of Technology (IIT) Jammu
75	Kishore Gopalakrishnan	2014B5A40523G	Inter University center for astronomy and astrophysics
76	Tom Jose	2015A4PS0318G	Indian Institute of Technology Madras



SNo.	Name	ID No	Place of Thesis
77	M Kaushik Reddy	2015A4PS0384G	Indian Institute of Technology Madras
78	RathiShubhamPawan	2014B4A40555G	NUS
79	Smith Sen	2014B4A40896G	UMR Lisah
80	RohitShekhar	2014B5A40695G	Stockholm University
81	Shreyashkumar	2015A4PS0147G	National University of Singapore
82	ShubhamChavan	2015A4PS0316G	National University of Singapore
83	B.RachithAiyappa	2014B5A40469G	Indian Institute of Science, Bangalore
84	ChiragDeshpande	2014B5A40557G	University of Illinois Urbana champaign
85	Parikh KevalKetan	2015A4PS0138G	National University of Singapore
86	RohanGodiyal	2015A4PS0323G	Instituto Superior Tecnico (IST)
87	Pratik Manwani	2014B5A30677G	University of California, Los Angeles
88	Tejas Ajay Zodage	2014B5A40609G	carnegiemellon university
89	PrathameshBodhankar	2014B5A10679G	Bhabha Atomic research center
90	SangeethJayan	2014B5A30418G	Indian Institute of Science Bangalore
91	JaychandranPadayasi	2014B5A30401G	University of Sherbrooke
92	Vibhu Mishra	2015B5PS0558G	IIT Bombay
93	Nikhil Ramesh	2014B5A70598G	The Indian Institute of Mathematical Science Chennai
94	Lucky Kapoor	2014B5A30449G	TIFR
95	SanketDeshpande	2014B5A30599G	Tata Institute of fundamental research
96	ArchitPatke	2015A7PS0094G	University of Illinois, Urbana- Champaign
97	KaivalyaRawal	2015A7PS0005G	Nanyang Technological University, Singapore

- **First Degree Thesis Off Campus list First Semester 2018 -2019**
- **Second Semester 2017-2018 M.E. (BITS G629T) "DISSERTATION"**

SI No	Name	ID No	Faculty	Organization
1	Akanksha V Savardekar	2016H1290005G	Dr. Arnab Banerjee	BITS-PilaniK.K.Birla Goa Campus
2	MayankChaudhari	2016H1030014G	Dr. SantonuSarkar	BITS-PilaniK.K.Birla Goa Campus
3	Aakash Nelson Mattukoyya	2016H1030022G	Dr. RadhikaVathsan	BITS-PilaniK.K.Birla Goa Campus
4	SadtadwipaGanguly	2016H1290003G	Dr. AngshumanSarkar	BITS-PilaniK.K.Birla Goa Campus
5	ManaliRamakantMalvankar	2016H1290001G	Dr. Kundan Kumar	BITS-PilaniK.K.Birla Goa Campus
6	Namitha N N	2016H1290004G	Dr. IndraniTalukdar	BITS-PilaniK.K.Birla Goa Campus
7	Fiona Fernandes	2016H1290006G	Dr. MeenalKowshik	BITS-PilaniK.K.Birla Goa Campus
8	Saranya	2016H1290002G	Dr. MeenalKowshik	BITS-PilaniK.K.Birla Goa Campus
9	Manu Malladi	2016H1010008G	prof. Sutapa Roy Ramanan	BITS-PilaniK.K.Birla Goa Campus
10	Suchi	2016H1010012G	Dr. S.S. Baral	BITS-PilaniK.K.Birla Goa Campus
11	AmbikaParab	2016H1010013G	Prof. S.D. Manjare	BITS-PilaniK.K.Birla Goa Campus
12	SohamSurendra Kale	2016H1010009G	Dr. AshimaShaukat	BITS-PilaniK.K.Birla Goa Campus
13	Nikhil Sasidharan	2016H1010011G	Prof. Srinivas K	BITS-PilaniK.K.Birla Goa Campus
14	Alwin Michael Tomy	2011HD010588G	Dr. RajagopalVellingiri	BITS-PilaniK.K.Birla Goa Campus

• **First Semester 2018-2019 M.E. (BITS G629T) "DISSERTATION"**

S.No	Name	ID. No	Supervisor	Place
1	ShubhamNamdeoraoLanjewar	2017H1010029G	Dr. Anirban Roy	BITS-PilaniK.K.Birla Goa Campus
2	PrabhudesaiVallabhSudhir	2017H1010026G	Dr. Sharad M Sontakke	BITS-PilaniK.K.Birla Goa Campus
3	Harshavardhan T	2017H10100289	Dr. AsimaShaukat	BITS-PilaniK.K.Birla Goa Campus
4	K Janaki	2017H1010027G	Dr. SarojSundarBaral	BITS-PilaniK.K.Birla Goa Campus
5	Rhea Mariam John	2017H1010017G	Dr. Pradeep K Sow	BITS-PilaniK.K.Birla Goa Campus
6	Aastha	2017H1010024G	Dr. AmolDeshpande	BITS-PilaniK.K.Birla Goa Campus
7	DivyaJoslin Mathias	2017H1010022G	Dr. Vivek R	BITS-PilaniK.K.Birla Goa Campus
8	Shree Sharan	2017H1010021G	Prof. S D manjare	BITS-PilaniK.K.Birla Goa Campus
9	Pooja Paul Chowdhury	2017H1010020G	Prof. SrinivasKrishnaswamy	BITS-PilaniK.K.Birla Goa Campus
10	SachinGautham MB	2017H1010023G	Dr. JegathaNambi Krishnan	BITS-PilaniK.K.Birla Goa Campus
11	Mitali A Waghmare	2017H1010019G	Dr. SarojSundarBaral	BITS-PilaniK.K.Birla Goa Campus
12	PranjaliRanade	2017H1010025G	Dr. RichaSinghal	BITS-PilaniK.K.Birla Goa Campus

• **CATEGORY-WISE DISTRIBUTION OF Ph.D. STUDENTS ON ROLLS DURING THE YEAR 2018**

S.No.	CATEGORY	NO. OF STUDENTS ON ROLL	
		II Sem 2017-2018	I Sem 2018-19
1.	Staff	14	11
2.	Staff (Pre-Ph.D course work)	0	0
3.	Research Scholars	210	231
<b>GRAND TOTAL</b>		<b>224</b>	<b>242</b>

**I. Statistical Information for Ph.D. Programme**

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
<b>II Sem 2017-2018</b>	25	25	23	02
<b>I Sem 2018-19</b>	31	31	28	03
<b>Total</b>	<b>56</b>	<b>56</b>	<b>51</b>	<b>05</b>

**II. Statistical Information for Faculty Development Scheme**

Sem.	Permitted to Appear in Quali. Exam.	Appeared	Passed	Failed
<b>II Sem 2017-2018</b>	0	0	0	0
<b>I Sem 2018-19</b>	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**III. Analysis of candidates permitted to appear in Ph.D. qualifying examination**

(i)	BITS Faculty (Total)	(ii)	Aspirants(Part Time) of High Standing and proven competence (Total)	(iii)	Full time Students (Total)
	0		11		45

<b>Discipline wise Break-up</b>	
Biosciences	13
Chemistry	05
Chemical	05
EEE	09
Mathematics	04
Mechanical	05
CSIS	05
Lang. & Hum.	02
Management & Eco & Fin.	03
Pharmacy	00
Physics	05
Civil	00

### **COMMUNITY WELFARE**

Faculty in charge: Prof. Radhika Vathsan, Department of Physics. The Community Welfare Unit facilitated the following activities during the calendar year 2018.

The Medical Centre has been providing OPD services as well as 24 x 7 emergency medical services to all the campus residents. A 24x7 ambulance service is also available. An in-house pharmacy is available at the medical centre and a lab collection point to provide diagnostic facilities has been functioning with a tie-up with a local diagnostic laboratory, Ranbaxy and Thyrocare. The Medical Centre has state-of-the-art equipment such as Dental Chair, Digital X-ray machines, Treadmill (TMT), ECG machine, Lung function test, X-ray, Multiparameter monitors, Defibrillator, Syringe pumps.etc.

A new center for mental health and rehabilitation run by M Power was inaugurated formally on by Mrs. Neerja Birla on 24 August 2018.

Cashless Medical Reimbursement Scheme has been operational to provide easily accessible medical care to the residents of the campus. The Scheme can be accessed through a health card, which can also be used to receive treatment for various medical and surgical ailments from the Specialists from Goa. Following are the specialties available for routine and on call basis for out-patient care – Gen. Medicine / Gen Surgery / Orthopaedics / Dermatology.

Drinking water hygiene on campus is maintained by periodic testing of water at all the water coolers installed in food outlets, hostels and administrative buildings. Water testing from a few crucial points for the campus supply is also being implemented.

The Child Care Centre on campus is operating as a playschool for infant children in the morning and a Day Care in the afternoon for providing invaluable support and care to the children of BITS faculty and staff. The center is run by 4 dedicated staff assisted by 3 maids. It is provided with all necessary facilities (toys, activities, educational material, infrastructure with outdoor play area, etc.). In addition, campus children are exposed to a variety of activities such as drawing, dance, karate, violin, drawing and mental arithmetic, for which classes by professionals are being conducted.

The Student Activity Center, apart from providing sports and wellness facilities to the students and campus residents, also has a designated as Music/Yoga/prayer hall that is being well utilized by the whole campus community. Various activities such as yoga and meditation, chanting of Vishnu Sahasranama, Sunderkand Path, Conducting of Holy Mass and choir practice. Classes for Hindustani music, Carnatic music, Western classical music, violin and guitar, as well as Bharatanatyam, Zumba etc are also being conducted. New classes on Tabla were introduced this year.

The SAC also houses musical instruments including violins, sitars, tanpuras, veenas, tablas, harmoniums, electronic tanpura and tabla, and keyboards. Many books on music are kept there for reference of the students, taken on lien from the Central Library. The unit also facilitated procurement of new instruments and repair of old ones for the

students' Music Club.

National and religious festivals like Republic day, Independence day, Lohri, Basant Panchami (which is also BITS Pilani Founder's Day), Holi, Ram Navami, Janmashtami, Ganesh Chaturthi, Onam, Durga Pooja, and Deepavali were celebrated with active participation of all the campus residents and students. During these festivals cultural performances of campus children, faculty and staff and students were organized.

Srutilaya, the Indian Classical Music and Dance Society of the campus, organized a couple of its regular annual events. On 21 January they organized Tyagaraja Aradhana in which students, alumni and club members render traditional Carnatic compositions as a tribute to the Musical Saint. A tabla workshop by renowned Goan Artiste Sri Mayank Bedekar was also held on the same day. A music recital by Sri Aniruddh Srinivasaraghavan was organized in collaboration with the department of Humanities, on 7th April. Srutialaya organized their annual programme Sursangam, homage to late Prof Suresh Ramaswamy on 22nd September. Renowned artists perform in these events many of who are alumni. In this year's event we had Pandit Praveen Godkhindi on the Flute with Mayank Bedekar on the Tabla. It was preceded by performances by alumni: Bharatanatyam by Mr. Anand Satheendran and Carnatic vocal by Mr. Balakrishnan.

International Yoga Day was observed on 21 June with a lecture demonstration and live yoga session in the SAC.

The 9th edition of TEDx BITS Goa was organized on Sunday, January 28, 2018. BITSGoA holds the honour of being the oldest running TEDx event in the country. This year's conference, themed 'Unherd', featured some of the country's brightest minds from diverse fields. The speakers included: Kajal Aggarwal from Hindi, Telugu and Tamil Movie Industry with movies like "Singham", Actor, Comedian and Writer Naveen Polishetty; Travel Guide, Photographer and Digital Nomad Jay Weinstein; mixologist and bartender Ami Shroff; Rahul Roushan: Founder of India's first satirical venture - Faking News; Anam Hashim: India's only Female Motorsport Stunt Athlete; Illusionist and Magician Suhani Shah and Aadar Malik: Comedian, Musician, and Actor.

Quark 2018, the 3-day annual techno-management festival, was held in February between 9th and 12th, under the patronage of United Nations Educational, Scientific and Cultural Organization (UNESCO), and CEE-SAYEN among others. Students from all over country competed in an array of events in varying fields such as Corporate Management, Robotics, Electronics, Design, Computing and Programming. Exhibitions and Workshops educated and entertained the participants and students alike with informative Guest Lectures by eminent personalities who are at the top of their field. Quark also featured Aurora, performances of various artists who have all not just excelled but also innovated and carved a niche for themselves in their respective fields.

In March from 23rd to 25th, SPREE, the annual inter-college sports festival, was held. With competitions in every sports field such as Basketball, Football and Cricket, interesting events were held during the nights, including talks by Simon Taufel, Australian umpire and Devendra Jhajharia, double gold medalist at Paralympics. Quark 2018 also featured Nucleya, one of the India's top DJ Artists and Sapan Verma, the man behind EIC (East India Comedy) Outrage.

Waves 2018 the annual students' intercollege cultural festival was celebrated during 26th-28th October, Student volunteers under the banner of Abhigyaan have been regularly holding classes in basic subjects for the underprivileged: children from Birla slums, of the security guards, gardeners and mess workers of the campus, and some special children. They organized a "Joy of Giving" (JoGW) week and a collection drive for donating used clothes and other articles to orphanages and old age homes. They also organized "no food wastage" campaigns in the student messes.

The students film club "Silver Screen" organized viewings of 6 films distributed through the year, including Bollywood latest releases as well as socially relevant films by independent producers

**INTERNATIONAL PROGRAMMES AND COLLABORATION DIVISION (Goa Campus)****MoU/ Agreement has been Signed with the following International Universities**

- Politecnico di Milano University, Italy,
- Texas A & M University, USA
- University of Tartu, Estonia (Higher Education Student and Staff mobility)
- University of Porto, Porto, Portugal
- Ontario India Program, Canada

**Significant Events Organized**

- From Texas A & M University (USA), a group of 17 under graduate students along with two faculty members have visited Goa campus during **28th Dec 2017 to 15th Jan 2018** to conduct Engineering Ethics Program, which is a part of their Curriculum.
- Ms. Emily Pacheco, Outreach and Admissions Specialist, International Programs of University of California Berkeley, USA visited Goa Campus for an Interaction to explore Collaboration opportunities with BITS K K Birla Goa Campus on **21st Sept 2018**
- University representatives from **Birmingham University, UK, Leeds University, UK, Manchester Metropolitan University, UK, Arizona State University, USA and LaSalle University, USA** visited Goa campus to conduct a Education fair on Higher Education Application Process for our students on **17th Nov, 2018**
- From Texas A & M University, USA a group of 24 under graduate students along with two faculty members have visited Goa campus during **27th Dec 2018 to 14th Jan 2019** to conduct Engineering Ethics Program, which is a part of their Curriculum.

**Invited Talks**

- Prof. Sukeshi Kamra from Carleton University, Canada, Academic Director-Ontario India (OIN) visited Goa Campus towards an Interaction with Students on Students Exchange Programme on **16th Feb 2018**
- Ms Arbindar Pal, Trade Commissioner, Consulate office of Canada, Mumbai visited our Campus towards Interaction with the faculty members about the opportunities in Canada, research collaboration on **05th March 2018**
- Prof. Sukeshi Kamra from Carleton University, Canada, Academic Director-Ontario India (OIN) visited our Campus towards an Interaction with Students on Students Exchange Programme on **30th July 2018**
- Ms Tanushka Bali, Senior Education USA Adviser, Education USA at USIEF Mumbai visited our Campus towards an Interaction with Students on 'Higher Education in USA' on **30th Aug 2018**
- Prof Rajiv Dubey, Professor of Mechanical Engineering, University of South Florida, USA visited our Campus towards an Interaction with the faculty members on **21st Dec 2018**

**Travel Grants**

- To pursue First Degree thesis 28 Students in SEM II (January – July 2018) AY 2017-18 and 55 students in SEM I (Aug- Dec 2018) AY 2018-19 have visited foreign universities.
- 11 students have visited international universities to conduct Summer Research Internship during May- July 2018
- 07 students in SEM II (Jan –May 2018) AY 2017-18, and 11 students in SEM I (Aug- Dec 2018) AY 2018-19 have received Partial Travel Support from IPCD

**PRACTICE SCHOOL:**

During SEM II, 2017-18 and SEM I, 2018-19 580 first degree students and 24 higher degree students went for PS-II from Goa campus. The faculty member who was involved as PSII Instructor for the station in Goa was Dr. Narayan Suresh Manjarekar.

During summer term 2018, total of 573 students went to 171 PS-1 stations from the Goa campus. A total number of 13 Faculty members, 4 SME Faculty members, 5 Non Teaching staff & 03 Student co-instructors accompanied the students for PS-1. Total no. of stations opened by Goa campus students are 09.

**PS 1-2018 Faculty Members**

Sr.No	PSRN	Faculty
1	107	A. Amalin Prince
2	334	Pravin Sakharam Mane
3	343	Amit Setia
4	376	Sarang C Dhongdi
5	469	Debasis Das
6	565	Raviprasad Aduri
7	663	Sudeep Baudha
8	672	Akshay Sakharam Rane
9	676	Ashish Chittora
10	695	Anirban Roy
11	697	Sharad Mahadeo Sontakke
12	699	Amol Anilrao Deshpande
13	717	Partha Saha

- PS 1-2018 SME Faculty Members**

Sr.No	PSRN	Faculty
1	310	Saroj S. Baral
2	432	Narayan Suresh Manjarekar
3	654	Ravindra S Saluja
4	653	Abhilash K Tilak

- PS-1-2018 Non Teaching Staff**

Sr No	PSRN	Student Name
1	580	Anil Lamani
2	220	Prakash Lamani
3	361	Dharmendra Nayak
4	517	Tikendrajit Das
5	262	Shivraj Rathod

- PS-1-2018 Student Co-Instructors**

Sr No	ID NO	Student Name
1	2013PHXF410G	Abhishek Joshi
2	2015PHXF014G	Joseph R.D Fernandes
3	2016PHXF0014G	Gibin Chacko George

**PUBLICATIONS DIVISION:**

The Publications and Media Relations Division published the BITScan Semester Newsletter Issue 16 and 17 and the Convocation Proceedings 2018 in this year. The division also regularly sent Press Releases to National and local media after every Campus event. The website Banner News and Latest News were also updated regularly with current events. Various student achievements, campus events and significant research projects were published in Local and National media.

**PUBLIC RELATIONS:**

Public Relations office coordinated following events:

Sr	Topic	Date	Convener
1	73 <sup>rd</sup> IFIP Working Group 10.4 on Dependable Computing and Fault Tolerance	11 <sup>th</sup> -15 <sup>th</sup> Jan 2018	Prof. Santonu Sarkar
2	International Conference on Reproductive Physiology and Comparative Endocrinology (ICRPCE) and the 36 <sup>th</sup> annual meeting of the Society for Reproductive Biology and Comparative Endocrinology (SRBCE)	20 <sup>th</sup> -22 <sup>nd</sup> Jan 2018	Dr. Arnab Banerjee
3	TEDx BITS Goa 2018	27 <sup>th</sup> -29 <sup>th</sup> Jan 2018	Director's office
4	The First Symposium on 'Sustainable technologies for food processing and preservation'	08 <sup>th</sup> -10 <sup>th</sup> Feb 2018	Prof. Sunil Bhand
5	Quark -2018   Annual Tech Festival Chief Guest: Hon'ble Chief Minister of Goa Mr. Manohar Parrikar	09 <sup>th</sup> -11 <sup>th</sup> Feb 2018	Director's office
6	International Conference on Economics and Finance (ICEF-2018)	16 <sup>th</sup> -17 <sup>th</sup> Feb 2018	Prof. Aswini Mishra
7	University & Campus Review Meeting	14 <sup>th</sup> - 15 <sup>th</sup> March 2018	Director's office
8	Spree -2018   Annual Sports Festival Chief Guest: Mr. Simon Taufel, retired Australian cricket umpire	23 <sup>rd</sup> -25 <sup>th</sup> March 2018	Director's office
9	ICT BITS Pilani workshop	20 <sup>th</sup> -22 <sup>nd</sup> April 2018	Prof. Srinivas Krishnaswamy
10	The Eighth DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018)	22 <sup>nd</sup> -26 <sup>th</sup> May 2018	Prof. Mainak Banerjee
11	12 <sup>th</sup> World Congress on Regional Science	27 <sup>th</sup> May -3 <sup>rd</sup> Jun 2018	Prof. Debasis Patnaik
12	Symposium and Workshop of Analytical Youth of Applied Mechanics (SWAYAM) 2018	04 <sup>th</sup> - 06 <sup>th</sup> July 2018	Dr. Sandeep Jose
13	International conference on Discrete Mathematics and its Application	07 <sup>th</sup> - 10 <sup>th</sup> July 2018	Prof. Tarkeshwar Singh
14	Inauguration of Rotational Moulding Center of Excellence for Education and Research, a BITS + Society of Asian Roto Moulders (StAR) Initiative	21 <sup>st</sup> July 2018	Prof. Sachin Waigaonkar
15	Convocation 2018	05 <sup>th</sup> August 2018	Director's office
16	Conclave on 'Catalyzing Startup Ecosystem Through Academia-Industry Collaborations'	17 <sup>th</sup> -21 <sup>st</sup> August 2018	Prof. K R Anupama & Prof. Sunil Bhand
17	Inauguration of M Power Cell Chief guest - Ms. Neerja Birla	24 <sup>th</sup> August 2018	Director's office
18	BITS Alumni Summit-4.0	24 <sup>th</sup> - 26 <sup>th</sup> August 2018	BITSAA office
19	Coalescence-2018	08 <sup>th</sup> - 10 <sup>th</sup> Sept 2018	Director's office
20	Sursangam-2018	21 <sup>st</sup> -23 <sup>rd</sup> Sept 2018	Prof. Radhika Vathsan
21	Lumini 2018: Annual Tech Conference by IEEE BITS Goa	22 <sup>nd</sup> -24 <sup>th</sup> Sept 2018	IEEE Dept
22	International Workshop on Data sharing for open innovation in community-based rehabilitation	26 <sup>th</sup> -30 <sup>th</sup> Sept 2018	Prof. Veeky Baths
23	Waves -2018   Annual Cultural Festival	26 <sup>th</sup> -28 <sup>th</sup> Oct 2018	Director's office
24	International Symposium on Bilingualism and Cognition	01 <sup>st</sup> - 04 <sup>th</sup> Nov 2018	Prof. Veeky Baths
25	4 <sup>th</sup> Asian Pacific Conference of International Society for Microbial Electrochemistry and Technologies (AP-ISMET 2018)	13 <sup>th</sup> - 16 <sup>th</sup> , Nov 2018	Prof. Srikanth Mutnuri

Sr .	Topic	Date	Convener
26	School on Advance Oxidation- 2018 Conference	15 <sup>th</sup> -17 <sup>th</sup> Nov 2018	Dr. Halan Prakash
27	Visit by Prof. Raanan Rein, Vice President of Tel Aviv University, Israel	3 <sup>rd</sup> Dec 2018	Director's office
28	Know Goa Programme Campus visit by Indian Diaspora Youth	05 <sup>th</sup> Dec 2018	Director's office
29	Visit by President and senior officials of University of Illinois System, USA representing its three campuses: Urbana–Champaign, Chicago and Springfield for signing a MoU	08 <sup>th</sup> Dec 2018	Director's office
30	ICOC conference-2018	11 <sup>th</sup> -13 <sup>th</sup> Dec 2018	Prof. Mainak Banerjee
31	XLII All India Cell Biology Conference	19 <sup>th</sup> -23 <sup>rd</sup> Dec 2018	Prof. Angshuman Sarkar
32	Visit by VC	24 <sup>th</sup> -30 <sup>th</sup> Dec 2018	Director's office
33	Educational Tours by University/ College/ School students - around 300 students from following institutes visited the campus: <ul style="list-style-type: none"> <li>• Capacity Building Tour under OP Sadhbhavana for students of Baba Ghulam Shah Badshah University, Rajouri, Jammu &amp; Kashmir arranged by Indian Army</li> <li>• Kathmandu University</li> <li>• Goa College of Architecture</li> <li>• Govt. High School, New Vaddem, Vasco, Goa</li> <li>• Govt. High School, Amona, Goa</li> <li>• Govt. High School, Malkarnem, Quepem, Goa</li> </ul>	24 <sup>th</sup> Sept 2018  2 <sup>nd</sup> April 2018 1 <sup>st</sup> Oct 2018 10 <sup>th</sup> Jan 2018 14 <sup>th</sup> Feb 2018 11 <sup>th</sup> Dec 2018	Public Relations Office

### Teaching, Learning Centre

During the year 2018, Teaching Learning Centre at KK Birla Goa Campus evolved its programs further and worked on its vision, which is to provide a foster a thriving culture for excellence in teaching-learning processes. It provided a forum to discuss and evolve new ideas in education to address current challenges. The following activities were carried out by Teaching Learning Centre during the year 2018.

1. TLC organized the following seminars.
  - a. Dr. Mitaxi Mehta from School of Engineering & Applied Sciences, Ahmedabad University gave a seminar on 27-Jan-2018. Title of the seminar was "Applying Olin pedagogy in the Indian context". Around fifteen participants were present
  - b. Prof. Vinayak Eswaran, from Mechanical and Aerospace Engineering department, IIT – Hyderabad gave a seminar on 9-April-2018. Title of the seminar was "Foundational ideas for the B.Tech, M.Tech and Ph.D. programs in mechanical engineering at IIT Hyderabad". Around fifteen participants were present
  - c. Prof. Hemanta K. Majumder from CSIR- Indian Institute of Chemical Biology, Jadavpur gave two seminars on 27-28 March 2018. The title of the seminar was "Maintenance of topology of DNA inside Cells ( Leishmania)" and "Mysteries in the DNA topoisomerases of kinetoplastid parasites ". Around fifteen participants were present.
  - d. Prof. Vijay Singh, Center for Education in Basic Sciences, Title- "Science education : An art or a science", 20th September 2018
  - e. Prof K.E.Raman, Retired as Professor Emeritus BITS Pilani Goa campus, Title - "Teaching at BITS - experience sharing", 1st October 2018. Around forty participants were present.
  - f. Prof. Deshdeep Sahdev, Ex-faculty Physics Department IIT Kanpur, Title - "A Case-Study of a Growing Synergy between Teaching & Research". 30th October 2018. Around twenty participants were present.
  - g. Dr. Nilak Datta, Humanities Department BITS Pilani Goa Campus, Title "How to Address the Elephant in the Room : Pedagogy and Student Motivation in College-Level Teaching Through Ken Bain's What the Best College Teachers Do (2004)". 14th November 2018. Around twenty participants were present.



2. TLC conducted Intensive teaching workshops (ITW) for new faculty members.
  - a. The 1st part of Intensive Teaching Workshop (ITW-1) for new faculty members was held on 9-10 Feb 2018. Numbers of participants in the workshop were fifteen. Amongst these one experienced faculty member was also present. Workshop was conducted by members of the teaching learning center. It contained 8 modules – On preparing for a class, Theories of learning, Active & cooperative learning, Learning outcomes based teaching, Designing assessments, Reflective teaching, Role of technology, Ethical practices.
  - b. The 2nd part of Intensive teaching workshop (ITW-2) was spread over in the months of March-April 2018. 13 new faculty members participated in the workshop. Each faculty member attended 5 sessions. The workshop was composed of 3 rounds – Round-1 : No specific brief was given to the participants. Round-2: Participants were asked to design an interactive class. Round-3: Participants had to use technology aids in the studio to record a 5-10 minute teaching modules which was then viewed by all participants and panel members.
  - c. Moodle workshop was conducted on 24-Feb-2018 by Prof. Radhika Vathsan & Ms. Sandhya in which there were two participants
3. Conferences
  - a. Prof. Radhika Vathsan & Prof. Gaurav Dar from Teaching-Learning Center attended the “International conference on transformation of engineering education” at Benett University, NOIDA from 4-6 Jan 2018. The conference was organized by the Indo-Universal collaboration for engineering education (IUCEE)
  - b. Prof. Gaurav Dar chaired a session at the conference titled “Improving synergy between teaching & research in Indian academic” from 26-27 March 2018 organized by Teaching-Learning center of Pilani campus
4. Research Project in pedagogy
  - a. Research project on “Evaluating the Outcomes and Impact of Hybrid, Blended, Telepresence and Online Courses: A case study” was funded by the TLC. The Principal investigator for the project was Prof. Reena Cheruvalath (a TLC member). A part-time Research Associate was also hired for the project.
5. Teaching-Learning Center was given a structure. Four directions (areas) have been identified along which its activities will move. All areas put together aim to contribute towards the evolution of our teaching practices which in turn will improve student learning. These four areas identified were - (a)Resource creation- pedagogy practices, (b) Pedagogy research, (c) Teaching & Learning forums, (d) Faculty enrichment.

## **B2.12 CENTRAL FACILITIES REPORT**

### **(I) CENTRAL LIBRARY**

The Library complex of BITS, Pilani – K K Birla Goa Campus comprises of a spacious building covering an area of 3512 m<sup>2</sup>. It is designed to provide several reading halls and a digital library with 11 public access internet terminals for convenient internet reference, apart from a large area earmarked for books storage. The Library has been provided with a wireless network whereby users can access the internet using their laptops. The Library is equipped with modern furniture well designed taking into consideration the future growth of the Library collection and the needs of the users. Presently, it has a seating capacity of 500+ which is likely to be expanded in the coming years.

The Library remains open throughout the year (except on 5 public holidays) from 09.00 am to 11.00 pm on all working days, from 9.00 am to 8.00 pm on Saturdays and from 10.00 am to 8.00 pm on Sundays and other holidays when the academic session is on. And during exams the timings are further extended from 09.00 am to 02.00 am. During recess and vacations, it is open from 09.00 am to 05.00 pm.

The Library web-site has been linked with the Institute home page for easy access. The home page was designed and developed by students. The Library had been using LIBSYS Library Management Software to automate all its housekeeping activities; from July 2014 a switch to LibLime Koha software system has been made. The Library Koha Web OPAC includes advanced search options for books and journals. The Library also hosts an online repository of publications of the students and faculty members of the Campus. As of now, these services (Koha OPAC and the repository) are accessible only while connected to the Campus intranet. In future, Internet connectivity will be offered.

### **The Online Portal**

We have our catalogue and transactions management on the Koha server which is a FLOSS. We also are developing a repository of our own (campus-level) research output like theses and publications. Together, using

FLOSS tools, we are in the process of organizing a library portal that we hope will become an academic social networking platform for the Campus. Sooner or later, this will become a component in the University-level library portal in the offing for some time. We have taken the opportunity created after the exit of a staff member to recruit a person with a technical profile instead of non-tech library professionals, in order to drive this development forward. This is a new beginning.

### Acquisition and circulation

The Library collection has reached 38889 volumes, growing by 3%. The average growth in the last decade had been around 10%. The decline in this year had been foretold, during the budgeting exercise for the current FY: unfavorable exchange rate rise and aggressive price rise by journal publishers is putting pressure on the share of journals and online resources in the budget. In order to continue subscriptions to all the important content, the Library has been forced to cut down on the budget for books.

### Reference Section

The Library has a good collection of reference materials, like encyclopedias and handbooks. However, a clear trend among users has emerged that is making the print versions obsolete: the rise in the use of online databases and search engines. The Library, through deliberations in the Library Committee, is planning to shift to this mode in future. Just as many journal and online content publishers are raising subscription rates, there is also a mitigating trend of free online access and shared resources. The Library is gearing up to become an efficient facilitator for accessing this online treasure trove through Koha.

### Journals and Online Resources

The Library subscribes to 71 Indian Journals and 19 Foreign Journals in print, 18 online journals, 8 digital library packages for researchers of different disciplines. Digital library packages include IEL Online, ASME, ScienceDirect, AEA Journals, ProQuest, ACM Digital library etc. Apart from these, online access to more than 3000 journals through INFLIBNET is available to the Campus. The Library home page gives links to the resources available, for easy location and access. Useful articles, news, newspaper clippings are displayed from time to time on the notice board for the information of readers.

### Other services

The Library has a collection of 35 educational video cassettes and 1461 CDs. The Library keeps the readers informed of all the books added to the Library through a regular display of new arrivals as well as updates on email. From time to time book exhibitions by publishers are arranged to facilitate faculty members selecting books for the library.

### New Reading Lounge

As a part of an effort to make library a happening place on campus, a new lounge area has been designed in the library. Created with the purpose of encouraging reading, it brings a welcome splash of color to the library. A plush room boasts of comfortable couches and carpet flooring meant to dampen sound and allow discussion between students without disturbing those outside the room. These spaces play host to book discussions; in future we want to organize author talks and more. We have earmarked exhibition spaces on the walls for displaying artwork, encouraging our Campus community's creativity. Some new installation for this purpose, including a glass-board for brainstorming and collaboration, is happening now. Reading area that welcomes younger children is also developed with couches. Our Library is an alcove of reading, collaborating and thinking.

## (II) COMPUTER CENTRE

### (A) Computer Hardware

No.	Make	Configuration	Number	Area of utilization
01	DELL 7010	Intel Core i7 Processor,8GB RAM,1TB HDD	22	Central Computing Labs, Various Department Labs, Faculty members and Staff members for carrying out their academic teaching and research work.
02	Dell Optiplex 9020 MT	Intel Core i7, 4th Generation, 8GB RAM, 1TB HDD	50	
03	Lenovo Edge73	Intel Core i7 Processor,8GB RAM,500GB HDD	56	
04	Dell Optiplex 3010	Intel Core i3 / i5 Processor, 8GB RAM,500GB/1TB HDD	100	
05	Dell Optiplex 9020	Intel Core i7 Processor, 8 GB RAM,1 TB HDD	39	
06	Dell Optiplex 390	Intel Core i3 Processor,8GB RAM,500GB HDD	11	
07	HP Prodesk	Intel Core i7 8th Gen Processor,16 GB RAM,1 TB HDD	60	
08	HP Prodesk	Intel Core i7 Processor,16 GB RAM,1 TB HDD	73	
09	Dell Optiplex 755	Intel Core 2 Duo Processor,2GB	66	

No.	Make	Configuration	Number	Area of utilization
		RAM,160GB HDD		Faculty members and Staff members for carrying out their academic teaching and research work
10	HP ProDesk 400	Intel Core 7i Processor,16GB RAM, TB HDD	40	
11	Lenovo G510	Intel Core i5 Processor,4GB RAM,500GB HDD	22	
12	Lenovo ThinkPad EdgeE430	Intel Core i3 Processor,4GB RAM,500GB HDD	5	
13	Dell Latitude E5430	Intel Core i3 Processor,4GB RAM,500GB HDD	18	
14	Dell Vostro 1550	Intel Core i3 Processor,4GB RAM,500GB HDD	17	
15	Dell Vostro 2420	Intel Core i3 Processor,4GB RAM,500GB HDD	9	
16	Dell Vostro 3550	Intel Core i3 Processor,4GB RAM,500GB HDD	56	
17	Dell Vostro 3500	Intel Core i3 Processor,4GB RAM,500GB HDD	25	
18	HP Tablet PC	Intel Core i3 Processor, 2GB RAM, 500GB HDD	4	
19	HP Elite Book Tablet 2730P	Intel Core i3 Processor, 2GB RAM, 500GB HDD	1	

**(B) Servers**

Sl. No.	Server	Make	Qty	Configuration	OS
<b>Network servers</b>					
1	DNS	IBM	2	[IBM x3650 M4 Dual Processors(6 Core),16GB RAM, 500GB Hard Disk]	Windows 2016
2	DHCP	IBM	2	[IBM x3650 M4 Dual Processors(6 Core),16GB RAM, 500GB Hard Disk]	Windows 2016
3	LDAP	IBM	2	[IBM x3650 M4 Dual Processors(6 Core),128GB RAM, 3GB Hard Disk]	Cent OS
4	Network Monitor (Notice)	DELL	1	[DELL Intel Xeon E5-2620 v4, Dual Processors(6 Core), 128 RAM ,4 TB Hard Disk]	Windows server 2016
5	Cacti Monitor	DELL	1	[IBM x3650 M4 Dual Processors(6 Core),128GB RAM, 3TB Hard Disk]	RedHat
6	CC Tv	DELL	1	[DELL Intel Xeon E5-2620 v4, Dual Processors(6 Core), 128 RAM ,70 TB Hard Disk]	Windows server 2016
<b>Communication Servers</b>					
1	Web Server	IBM	3	[IBM x3650 M4 Dual Processors(6 Core),128GB RAM, 3TB Hard Disk]	Windows server 2016
2	Call Manager	Cisco	1	[Cisco BE6000, 2.4 GHz,10MB Cache, 8GB DDR3 RAM Dual Rank, 500GB SATA_ 7.2K RPM SFF Hot Plug/Drive Sled Mounted]	Cisco Business Edition 6000 - Software App Version 10.X
3	SWD Server	DELL	1	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows 2003
4	Cyberoam Report	IBM	1	[IBM x3650 M4 Single Processors(6 Core),32GB RAM, 500GB Hard Disk]	Fedora

Sl. No.	Server	Make	Qty	Configuration	OS
5	Application Server	DELL	2	[DELL Intel Xeon E5-2620 v4, Dual Processors(6 Core), 32 RAM ,4 TB Hard Disk]	Windows Server 2016
<b>Academic Servers</b>					
1	Academic FTP	IBM	1	[IBM x3650 M4 Dual Processors(6 Core),128GB RAM, 3TB Hard Disk]	Fedora
2	Staff/ Faculty FTP	IBM	1	[IBM x3650 M4 Dual Processors(6 Core),128GB RAM, 3TB Hard Disk]	Fedora
3	Mech (Ansys, MATLAB,..etc )	IBM	2	[IBM x3650 M4 Dual Processors(6 Core),128GB RAM, 3TB Hard Disk]	Windows 2016
5	Course Management (Moodle)	IBM	1	[IBM x3650 M4 Dual Processors(6 Core),128GB RAM, 3TB Hard Disk]	CentOS
6	BITSAT	DELL	3	[DELL Optilex 755,Core 2 Duo 2.33GHZ, 2 GB RAM,160GB HDD]	Windows 2003
<b>(C) COMPUTER CENTER (Central Facility)</b>					
Central Computing Lab, Zone I	DELL 7010 [Intel Core i7 Processor,8GB RAM,1TB HDD]	12	Windows 10 and Linux Office 2010, AutoCAD Modelsim, Xilinx		
	Dell Optilex 9020 [Intel Corei7, 4th Gen, 8GB RAM, 1TB HDD]	46			
	DELL 3040 [Intel Core i7 Processor,8GB RAM,1TB HDD]	42			
Central Computing Lab, Zone II	Dell Optilex 3010 [Intel Core i3 / i5, 8GB RAM,500GB/1TB HDD]	67	Windows 10 and Linux, Office 2010, AutoCAD Modelsim, Xilinx		
	Lenovo Edge73 [Intel Core i7,8GB RAM,500GB HDD]	21			
	Dell Optilex 990 [Intel Core i3,4GB RAM,500GB HDD]	12			
Central Computing Lab, Zone III	HP ProDesk 400[Intel Core 7i Processor,16GB RAM, TB HDD]	40	Windows 10 and Linux, Office 2010, AutoCAD Modelsim, Xilinx		
	Lenovo Edge73 [Intel Core i7,8GB RAM,500GB HDD]	22			
	Dell Optilex 7010 & 9020 [Intel Core 2 Duo, 2GB RAM,320GB HDD]	9			
<b>(D) Operating System and Software Licenses</b>					
Windows	Windows 10	300			
Windows	Windows Server Standard 2012 / 2016	30			
Seqrite	Seqrite End point Security	850			
Microsoft Office	Office 2010 and Office 2016	300			

## Network Facilities

### Campus Local Area Network

The Campus LAN Project of BITS Pilani – K K BIRLA Goa Campus is a state of the art, completely switched, voice enabled LAN infrastructure. LAN is able to provide 100 Mbps fiber channel network connectivity to all faculty cubicles, offices, library, Labs, lecture theatres, workshop, auditorium all hostel rooms, staff quarters, visitors' guest house, shopping complex, student activity center & other public facility locations in the campus. There are 4000+ nodes across the campus.

The network is a three-layer network, namely core, distribution and access. The core & distribution layer is connected through gigabit fibre optic backbone, while the access layer is using enhanced CAT5 / CAT6 cabling. The network is designed to provide link level and device level redundancy.

### Wi-Fi Network

The Institute building, Visitors' Guest House, Student Activity Center and Medical Center are provided with secured Wi-Fi network facility. The Wi-Fi solution used for this is from RUCKUS. All hostels have WiFi connectivity. This Wi-Fi solution is using CISCO access points.

### Cloud Based Services (e-mail and File Storage)

University e-mail solution is supported by Google for 30,000 users of BITS campuses and WILP students. This solution is an integrated solution covering e-mail with 30 GB space, file storage with 5 GB space, collaboration tool, file sharing, personal web-pages, calendaring system, etc.

### LAN Security

The LAN security is provided by Cyberoam firewall with high availability and redundancy. The facility also supports high availability of internet lines and support on-demand bandwidth at any location with load balancing.

### Voice Communication

All faculty members have been provided with a laptop / desktop and VoIP telephone facility in their chambers. The VoIP facility facilitates receiving of incoming call directly on the individual telephone.

### Video Communication

Multi-point video conferencing facility is made available using POLYCOM HDX machine. This facility is utilized for online meetings of research groups in India as well as across the world apart from the administrative meetings.

### Internet Bandwidth

No.	Area	Bandwidth Allocated	Service Provider
01	Hostels, Guest House	800 Mbps	GWave (400) EtherNet Express (400)
02	Institute Building, Staff Quarters	500 Mbps	Vodafone (250) Vodafone (250)
04	Wifi Hostels, Academic building and Quarters	250 Mbps	Vodafone (250)
03	Cross Campus Teaching and Lectures/talks from BITS Alumni using web-based technology	45Mbps	Tata Tele Services

### Cross Campus Connectivity

No.	Area	Bandwidth Allocated	Service Provider
01	MPLS Connectivity connecting Pilani, Hyderabad, Goa campus with the Data center co-hosted at Mumbai for the ERP applications.	5 Mbps	Tata Tele Services
02	MPLS Connectivity connecting Pilani, Hyderabad, Goa campus with the Data center co-hosted at Mumbai for the BITS Connect 2.0 applications.	75 Mbps	Tata Tele Services

### Virtual Class Room (BITS Connect 2.0)

Virtual classroom is set up at K K BIRLA Goa campus. This facility will enable faculty to deliver lectures to all four BITS campuses simultaneously; alumni and experts to remotely deliver lectures and conduct workshops or panel discussions to multiple BITS campuses simultaneously, with recording and streaming of lectures.

### Telepresence Conferencing Room (BITS Connect 2.0)

Telepresence Director and Placement Office.conference room of 18 capacity have been set up at K K BIRLA Goa campus to facilitate virtual meetings for academic and administrative decisions at University level. Licenses for webex (web conferencing software) have been provided to all the faculty to facilitate discussions related to course work and research. This facility will also open up avenues of multimedia collaboration with anybody outside the campus. High end (CISCO EX 90) desktop systems are set up on the desk of.

### Bring your own device (BYOD)

As a part of an effort to make Computer Centre Lab enhancement, collaborative learning with students own personal digital devices on campus, a new Bring your own device (BYOD) area has been designed in the Computer Centre Lab. It is created with the purpose of encouraging students to use technology to support

their academic learning and research. Students are permitted to bring devices that can connect to campus Wired/Wi-Fi network for any accessible digital content.

**(iii) Workshop**

The central workshop is equipped with following equipment's purchased during the year **2018** are as follows:

S.No.	Particulars
1	Muffle Furnace
2	Cyclone Separator fabrication, Fabrication pipe line work with material and 10 mm MS plate, table length 800mmx600mmx900mm
3	Software – Modal Data Acquisition and Analysis Software for 8- Channel Soundbook DAQ
4	FLIR Exx Series Infrared camera, Make: FLIR, Model : E60, Temp Range : -20°C to +650°C (-4°F to +1202°F), Accuracy : $\pm 2^\circ\text{C}$ ( $\pm 3.6^\circ\text{F}$ ) or $\pm 2\%$ of reading, IR Resolution : 320 x 240 pixels
5	2 Channel Constant Temperature Anemometer (CTA) with Software A) Single Channel Research CTA, 200-240VAC, 50/60Hz.
6	Multi-Component Piezo-Electric Cutting Force Dynamometer Type 9272, With components
7	Accessories for Existing CTA and LDV Systems.
8	Calibration of Thermocouple & Rtd Sensor
9	Impact of Jet on Vanes-(With Data Logging facility)
10	Discharge Through Venturimeter, Orificemeter & Rotameter
11	Free & Forced Vortex Apparatus
12	Handheld Vibration Meter. Meggitt Sensing System- Wilcoxon, USA make Machinery Mate800TM vibration monitoring and analysis meter with external Meggitt sensor.
13	15 m3 Air Vessel
14	ICP® quartz force sensor
15	Flownex – Thermal –Fluid Simulation Software, Perpetual License, 18 Users
16	Analog current input module +/-20 mA, 16-Bit, 200 kS/s, 8-Ch AI Module
17	2-Channel PCI2 Acoustic Emission System and Accessories.
18	Thermocouple input module 16 ch thermocouple input module Isothermal terminal block for measurement accuracy up to 0.45 °C

**(iv) Central Facilities & Monitoring:**

The central facilities on campus include central water receiving and distribution facility, central electric power receiving distribution center, Sewage Treatment plant, Diesel Generator, and central Air-conditioning plant. The details of these facilities are as follows:

Central Facilities	Installed Size/Capacity
PWD Water Connection	500cumec
Water Storage Sump	1800 cumec . Three tanks of 600 cumec each
Overhead Water Tank	150 cumec. Water pumped from the main sump to over head tank and distributed to campus residences through gravity.
No. of Bore Wells	5 Nos. / 55 cumec
GEB Electricity Supply	3000KVA and 2000 KVA transformers at 33 KV substations is energized with distribution of load by completing loop. A separate 11 KV line connected at PCC2 for AC plant with 1000 KVA transformer
Transformer	500/1500/750/750 KVA at PCC1,2,3 and 4 respectively. 3000KVA and 2000 KVA transformers installed at 33 KV substation step down power from 33 KV to 11 KV
Diesel Generator	2X500 connected to main building lighting, 750 KVA DG connected to air condition plant. One 62.5 installed for pump house for to pump water in case of power failure another 62.5 installed at VGH and 35 KVA DG connected to medical centre.
AC Plant	660 TR load connected to main building includes class rooms, cubicles, computer centre, Library and Auditorium etc.

Central Facilities	Installed Size/Capacity
Sewage Treatment Plant	Capacity 600 cumec and treated water is used for campus garden watering
Renewable energy	Two, 6.75 and 3.75 KV solar roof top panel are installed and connected to street lights .
Solar Water Heater	All hostels are backed with solar water heater for hot water requirement
Tele presence class room	200 capacity class room has been built for across three campus live class with the help of latest technology.

### B2.13 MAJOR MAINTENANCE, RENOVATIONS OR NEW CONSTRUCTION REPORTS

Incubation Centre: A separate block has been constructed and developed in association with Birac bio nest and has been occupied by incubates

### Hostels

Two new hostels are added to existing hostels with a capacity of 150 and 214 respectively. Additional two more hostels are added for this FY having a capacity of each 100 rooms with double sharing. Attached new dining hall has been commissioned to cater to the added students.

### B2.14 MAJOR EQUIPMENTS ACQUIRED DURING THE YEAR

S No.	Asset Description	Location	Rate	Qty	Purch.Value
1	Coupled tank level process control station	Chemical Engg. Prof. Dhanay Ram V-A-103	175,000	1	175,000
2	Ant PC pheidole XE2630 PA with accessories	EEE	180,000	1	180,000
3	Dell 3050 Desktop core-15-7500/4GB /win 10 pro	C-207 IMA Lab	56050	2	112,100
4	HP prodesk 400 G4 small	CC-219	44510	40	1,780,416
5	HP Laptop with accessories	CC-219	49043	10	490,425
6	HP prodesk & Accessories	CC-219	44683	30	1,340,493
7	HP prodesk & Accessories	Mathematics lab -Kept in DST Fist lab	52897	2	105,794
8	12TB 7.2kRPM NLSAS 12 Gbps sin hot plug hard drive	Computer Centre	35,294	8	282,350
9	HP Prodesk Desktops & Accessories	Computer Centre	49,600	75	3,719,969
10	Ant PC Model: Pheidole CI700GCG with Monitor	EEE Dept	202,949	2	405,898
11	HP Prodesk & accessories along with 19.5" LED backlit monitor for the same	Chemical Engg department	51,626	6	309,755
12	HP Notebook & Accessories(Laptop) (HP Laptop 440 G4 Intel (R) core TM i7)	Medcial Centre	50,511	7	353,574
13	HP IDS DSC 2GB i7 (Laptop)	Computer Centre	66,456	60	3,987,359
14	Laptop Dell Latitude 3480/15-7th gen/8GB/1TB DOS	Medcial Centre	51,400	3	154,200
15	HP 280 G3 SFF PC 18.5" monitor	EEE	55,900	8	447,202
16	HP 280 G3 SFF PC 23.8" monitor	EEE	60,082	15	901,228
17	Dell Poweredge R540 server	Computer Centre	591,829	2	1,183,658
18	Dell Optiplex 3060 sff	Mechanical Engg.		2	

S No.	Asset Description	Location	Rate	Qty	Purch.Value
			90,387		180,773
19	Epson Business Projector EB-536Wi	LT-3 & 4	66176	2	132,352
20	Projector Epson EB X41	qty-2 CC-219,C-404,403,306,507,508,504,CC store qty-2	38900	10	389,000
21	Epson projector model Eb 675	CC-219	106960	1	106,960
22	Dell power Edge R 730 server intel exon E5	CC-117 ARC Office	355180	1	355,180
23	Dell Power Edge R830 server 2X intel xeon E-5-4620 V4 server	Server Room CC-119	623630	2	1,247,260
24	Dell Power edge R830 server 2x intel xeon	System lab A-200 CS&IS dept.	556960	1	556,960
25	Dell Power edge R730 server intel xeon	System lab A-200 CS&IS dept.	335120	1	335,120
26	Dell power edge R830 server E5 4650 V4 2.2GHZ 32GB (SERVER)	EEE	1,873,840	1	1,873,840
27	Dell Optiplex 3050MT Intel core	Bio lab C-107	65714	3	197,141
28	Cisco Phone	CC	6,903	90	621,298
29	Wifi Access Points	CC	19,845	40	793,781
30	Cisco Switch with accessories	Workshop	148,460	1	148,460
31	Cisco Catalyst 3650 24 port Data 4*1G uplink IAN Base with accessories	Chemical Engg. A-104	148,460	1	148,460
32	Mid range 802 waves 2 AP with MU MIMO -for WIFI	CC -Academic Area	23,249	20	464,979
33	HP Laserjet M436nda printer	PS Division	69,856	1	<b>69,856</b>
34	HP colour laserjet Pro MFP	Admin Depart,	83,500	1	83,500
35	12.5 KVA 240 VDC on line uPS 3ph.in/1ph out with quanta make 12V/42Ah S M F batteries 20 with battert rack	Workshop WS/108	212400	1	212,400
36	10 KVA online ups from consul neowatt	Accounts-B-104	136000	1	136,000
37	Hosting setup via browser RDP split screen arrangement 1/4 screen live video feed 3/4 screen software interface	Remotte lab A-115	22,184	5	110,920
38	Secured transfer of files from user system to lab and viceversa	Remotte lab A-115	2,360	5	11,800
39	Software for Email and phone support response within 24 hrs	Remotte lab A-115	47,200	1	47,200
40	Logitech C922 camera uSB with stand	WILPD Remotte lab A-115	9,652	5	48,260
41	LED Light with flexible stand including relay controller	WILPD Remotte lab A-115	4,165	5	20,825
42	lapel Mic Camera mount wireless set model sennheier	CC-118 WILP studio room	55,000	1	55,000
43	Handheld audio recorder model zoom H4n PRO	CC-118 WILP studio room	16,900	1	16,900



S No.	Asset Description	Location	Rate	Qty	Purch.Value
44	Canon Ef standard zoom lens	CC-118 WILP studio room	131,500	1	131,500
45		Chemical Engg department	206,500	1	206,500
46	Solar Simulator assembly parts & accessories xenon lamp power supply and lamp casing	Chemistry Dept.	550,045	1	550,045
47	Blue star 3 ton mega split ac	CC-219	77,759	5	388,797
48	270 TR chiller blue star make water cooled screw chiller for AC plant including installation.	Maintenance	3,446,013	1	3,446,013
49	Blue star water cooler SDLX8120	CH-07 & AH-09	51,500	2	103,000
50	120mm opal white ceilling gan (Entrust 50- 5 star)	Hostel	1,405	119	167,195
51	NVIDIA /Display card /Titan XP	Sand Box	98,000	2	196,000
52	AC current clamp .100mA rms to 1200 arms 30Hz to 5 KHz	Electrical Machine Lab A-204	37,011	3	111,032
53	E Image Tripod Kit	LC-104 Studio Room	16,000	1	16,000
54	Sony PXW Z 150 4K full HD digital video camera with extra battery	LC-104 Studio Room	223,650	1	223,650
55	LED TV model 55LJ550T	Medcial Centre	82,500	2	165,000
56	Samsung professional display (Dc 49H)	LC-104 Polycm Room	117,760	1	117,760
57	4" digital clock H M model 4/W/MS/HM/Nt	LT -1 to 4, C-218,301,302,303 A-501,502	11,369	10	113,689
58	Dagu Rover 5 2 WD Tracked chassis with 2 encoder	System Lab A-200	4,626	3	13,877
59	Dagu Wild Thumper 4WD All Terrain chassis black	System Lab A-200	17,699	1	17,699
60	Raspberry Pi3 with built in wifi and bluetooth LE	System Lab A-200	2,949	5	14,744
61	8MP raspberry Pi camera V2	System Lab A-200	2,359	6	14,153
62	Xbee 2MW wire antenna S2C	System Lab A-200	1,120	10	11,198
63	Multi chassis rescue platform	System Lab A-200	17,066	1	17,066
64	UPS & Batteries	BH09	87,320	1	87,320
65	HPE 8/8 base 8 port enabled san switch	System Lab A-200	186,972	1	186,972
66	HPE 5m multi mode OM3 LC/FC cable	System Lab A-200	2,041	8	16,328
67	HPE 8GB short waves B senses SFP 1 pack switch accessories	System Lab A-200	4,980	8	39,836
68	HP support pack	System Lab A-200	36,480	1	36,480
69	Sound system nexo GEO S1210	Auditorium	182,900	5	914,500
70	Sound system nexo GPT Bumper	Auditorium	125,788	1	125,788
71	Sound system nexo GPT xbow	Auditorium		5	

S No.	Asset Description	Location	Rate	Qty	Purch.Value
			49,206		246,030
72	Sound System NEXO VXT BL820	Auditorium	3,186	20	63,720
73	TurtleBot3 Burger - Robot	System Lab A-200	59,000	10	590,000
74	Audio Connectors	LT-1 to 4	60,534	1	60,534
75	Onetime ITC of Audio System	LT-1 to 4	18,880	1	18,880
76	Yamaha Power Amplifier	LT-1 to 4	31,754	4	127,015
77	Yamaha VXS series VXSB 8" wall mount speaker	LT-1 to 4	17,892	8	143,139
78	Yamaha VXS series VXSB 5.25" wall mount speaker	LT-1 to 4	11,022	8	88,179
79	Yamaha MG-10 Mixer without effectcs	LT-1 to 4	10,907	4	43,627
80	Mid range 802 waves 2 AP with MU MIMO -for WIFI	CC -Academic Area	23,249	20	464,979
81	Yamaha power amplifier PX3	Class room	33,359	11	366,945
82	Yamaha VXS series VXSS wall mount speaker	Class room	12,628	22	277,808
83	Yamaha MG 06 Mixer consol	Class room	9,394	11	103,335
84	Surf Board - Outdoor gym & playground equipment for children Park	Childern park	41,212	1	<b>41,212</b>
85	Thai Chi Spinner(2 Wheel) - Outdoor gym & playground equipment for children Park	Childern park	19,470	1	<b>19,470</b>
86	Sky Walker - Outdoor gym & playground equipment for children Park	Childern park	49,649	1	<b>49,649</b>
87	Standing & Seating Twister - Outdoor gym & playground equipment for children Park	Childern park	46,209	1	<b>46,209</b>
88	Chest press Cum Seated Pullar - Outdoor gym & playground equipment for children Park	Childern park	38,940	1	<b>38,940</b>
89	Arm & paddle Bike - Outdoor gym & playground equipment for children Park	Childern park	21,936	1	<b>21,936</b>
90	MPPS GPA-07 - Outdoor gym & playground equipment for children Park	Childern park	279,070	1	<b>279,070</b>
91	Four Seater M G R - Outdoor gym & playground equipment for children Park	Childern park	35,695	1	<b>35,695</b>
92	standard sea saw - Outdoor gym & playground equipment for children Park	Childern park	9,735	1	<b>9,735</b>
93	sunset climber - Outdoor gym & playground equipment for children Park	Childern park	38,940	1	<b>38,940</b>

S No.	Asset Description	Location	Rate	Qty	Purch.Value
94	Chain climber - Outdoor gym & playground equipment for children Park	Childern park	29,205	1	<b>29,205</b>
95	Balancing Bridge - Outdoor gym & playground equipment for children Park	Childern park	48,675	1	<b>48,675</b>
96	Channel Slide - Outdoor gym & playground equipment for children Park	Childern park	110,330	1	<b>110,330</b>
97	Four seater MGR Animal - Outdoor gym & playground equipment for children Park	Childern park	38,940	1	<b>38,940</b>
98	Multi Seater See Saw - Outdoor gym & playground equipment for children Park	Childern park	16,225	1	<b>16,225</b>
99	Rock Climber - Outdoor gym & playground equipment for children Park	Childern park	103,840	1	<b>103,840</b>
100	Giraffe Climber - Outdoor gym & playground equipment for children Park	Childern park	38,940	1	<b>38,940</b>
101	Dust Bin Jokerbin - Outdoor gym & playground equipment for children Park	Childern park	7,139	1	<b>7,139</b>
102	Dustbin Birdbin - Outdoor gym & playground equipment for children Park	Childern park	4,868	1	<b>4,868</b>
103	Deluxe bench FRP - Outdoor gym & playground equipment for children Park	Childern park	10,060	4	<b>40,238</b>
104	4" digital clock H M	Classrooms	10,082	35	352,867
105	Preacher Curl machine SM AF 8004 (ARM curl SM-720)	Gymnasium	61,950	1	61,950
106	Bicep Curl machine CT AF 2103 (BICEP curl seated ct-2011)	Gymnasium	84,075	1	84,075
107	Leg extension / Prone leg curl AF 2115 A (GYM CT 2021A prone Leg Curl)	Gymnasium	82,747	1	82,747
108	Pecdec machine AF 3315 A (Rear Delt pec fly af 4414a)	Gymnasium	79,473	1	79,473
109	Trap Bar absolute Olympic size (Trap 6 ar w lock ol mpic)	Gymnasium	11,800	1	11,800
110	Flowchem make CFSW 1034V pump 10 HP 3ph vertical sewage submersible pump along with its Control panel (Analog)10hp 3 phase with level controller	STP	74,022	2	148,043
111	Toro Make Heavy Duty Recycler Mower	Cricket Ground	99,960	2	199,920
112	Brush Cutter (monoflail CuttingLine)	Cricket Ground	37,760	1	37,760
113	Zodiac Fx Classromm Pack 10x Zodiac Fx	CS&IS Dept	56,443	1	56,443

S No.	Asset Description	Location	Rate	Qty	Purch.Value
114	Zodiac Wx Opeflow Wireless Access Paoint	CS&IS Dept	18,833	2	37,666
115	conductivity tds salinity resistivity bench meters	chemistry lab	77,880	2	155,760
116	Air compressor & line Filter for air compressor	mechanical Engg lab	1156083	1	1156083
117	Laptop micro controller based laboratory refrigrator	Chemcial Engg. A-105	130,560	1	130,560
118	CFB Boiler (pipe)	Workshop	629,989	1	629,989
119	Universal IC Tester DICT -03	A-202 &,201	69,870	2	139,740
120	Modally Tuned impulse hammer w/force sensor and tips	Dynamic Engg.	82,168	1	82,168
121	High sensitivity miniature 2 gm ceramic shear icp accel	Dynamic Engg.	32,805	2	65,610
122	High strength rare earth magnetic base 0.375 tapped hole	Dynamic Engg.	13,545	2	27,090
123	Multi purpose ICP force sensor 1 k ib comp	Dynamic Engg.	37,297	1	37,297
124	GPC 3060D 375W linear D C power supply	Workshop	50,331	2	100,661
125	infrared camera with research iR standard 4 software tripod with accessories	Workshop	1,581,200	1	1,581,200
126	Rota 3 R (Centrifuge Reprigerator)	Bio Lab C-104	228,805	1	228,805
127	Electronic Lab weighing scale	Physic lab-B-113	179,328	1	179,328
128	Shimadzu make TOC analyzer model TOC LCPH with accessories	chemistry lab	1,782,447	1	1,782,447
129	Optical System with 325 Temp controller	Physic lab-MT-1- B-113	1,650,604	1	1,650,604
130	FP 8500ST Spectrofluorometer	chemistry lab IMA C-207	1,940,955	1	1,940,955
131	Muffle Furnace	Workshop	300,000	1	300,000
132	AFG 2225MHz 2 channel (Dual channel Arbitrary function generator)	digital communication lab A201	30,381	19	577,237
133	1200 DEG high temperature tube furance	Chemcial Engg. A-106	108,560	1	108,560
134	Vibration meter with calibrtion certificate	workshop	180,776	1	180,776
135	Desiging Engg & Supply of 15m3 Air Vessel	IC Engine Lab	1,099,996	1	1,099,996
136	Vacuum Dessicator Cabinet	Chemcial Engg. A-105	299,720	1	299,720
137	2D System (Multi-stage Incubator)	Biology store	480,783	1	480,783
138	Quantum eraser metric 230 VAC	Physics Department	165,155	1	165,155
139	Quantum crypyography demonstration kit	Physics Department	295,730	1	295,730
140	Michelson Interferometer kit	Physics Department	238,457	1	238,457

S No.	Asset Description	Location	Rate	Qty	Purch.Value
141	Rock Climber - Outdoor gym & playground equipment for children Park	Maint.	103,840	1	103,840
142	Probe Straight 20 hit film - (Used for measuring velocity in wind tunnel experiments)	IC Engine Lab	510,737	2	1,021,473
143	Multi Component Piezo Electric Cutting Force Dynamometer	Mechanical Engg. Lab	2,565,465	1	2,565,465
144	shaking incubator and centrifuge	Chemical Engg department	416,015	1	416,015
145	Digital storage Oscilloscope 100MHz bandwidth 2gS sample	EEE A-202,201,203	36,616	19	695,695
146	Digital Storage Oscilloscope	Power Electronics Lab A-204	45,784	10	457,840
147	Calibration of thermocouple & RTD sensor	Workshop	107,775	1	107,775
148	Impact of Jet on Vanes (with data logging facility)	Workshop	236,985	1	236,985
149	Discharge through venturimeter, Orificemeter & Rotameter (with data logging facility)	Workshop	290,970	1	290,970
150	Free & forced vortex apparatus	Workshop	115,740	1	115,740
151	Study of pressure measurements	Workshop	72,375	1	72,375
152	Orbiteck LE Shaker incubator	Biology C-106	310,328	2	620,655
153	3" Air Cooled vacuum pumping system'	Physic lab-MT-1- B-109	153,090	1	153,090
154	3D printer julia pro dual nozzle bed size 35x40x40cm along with 1.75mm filament for 3D printer julia pro dual nozzle	EEE	403,808	1	<b>403,808</b>
155	Oscilloscope Digital storage 100MHz 1GS/s 4Isolated Channels TFT colour Display battery powered certificate of traceable calibration standard (incl custom clearance charges thereon)	EEE	256,156	2	<b>512,311</b>
156	F/G FEG retip electron microscope	Chemical Eng.	640,911	1	<b>640,911</b>
157	Equipment description: Definition of moment of inertia confirming Steiners theorem	Physics Dept	57,733	2	115,467
158	Equipment description: Birefringence and polarization with calcareous spar	Physics Dept	181,448	1	181,448
159	Equipment description: Interference at Fresnels biprism with an He-Ne laser	Physics Dept	230,934	1	230,934
160	Equipment description: Investigation of the spatial coherence of an extended light source	Physics Dept	247,429	1	247,429
161	Weighing balance capacity 120gm (Model:CY123C-Aczet	Biology	34,928	4	139,712

S No.	Asset Description	Location	Rate	Qty	Purch.Value
	(make)				
162	Weighing balance capacity 220gm (Model:ATX224-Shimadzu make)	Biology	78,765	1	78,765
163	ICP quartz force sensor, impact, 20k lb comp, 0.25 V/lb, 10-32 ele. Conn., stainless steel construction, hermetically sealed along with 10ft lownoise coaxial cable(blue)	Workshop	123,738	1	123,738
164	Combiflash NextGen Automated Flash Chromatography (lab instrument) with software control via 12inch touch screen display unit along with accessories	Chemistry Dept	1,405,379	1	1,405,379
165	Angular Momentum System (used to measure momentum inertia in connection with Laws of conservation of energy)	Physics Dept	650,428	2	1,300,855
166	Mechanical Dept	IC Engine Lab	1,322,796	1	1,322,796
167	(Thermocouple J type) - temperature measurement range 32 deg F to 900 deg F - Pressure sensors	Mechanical Dept	6,313	24	151,502
168	FP 6761/46 Nav Cam-250 Electron Microscope	Chemistry Dept.	781,242	1	781,242
169	XR 4.0 X-ray Plug in Cu tube	Physic Dept	177,804	1	177,804
170	PHYWE narrow beam tube	Physic Dept	179,280	1	179,280
171	Semi Micro balance aP225WD dual range	Chemical Engg Dept.	235,764	1	235,764
172	Disperser digital S22 Ultra	Chemical Engg Dept.	202,923	1	202,923
173	NI 9203 Analog current input module+/-20 mA, 16-Bit 200ks/s8-ch AI module screw terminal connectivity	Mechanical Engg.	77,200	2	154,400
174	Micrometer Adjustable Film applicator 150mm width (film casting doctor blade)	Chemical Engg.	113,280	1	113,280
175	Hollow Fiber Membrane Testing Unit	Chemical Engg Dept.	120,500	1	120,500
176	2 fully wired control panel capable of 8 AHU	AC plant	31624	2	63,248
177	2 fully wired control panel capable of 4 AHU	AC plant	24485	2	48,970
178	Graphical user interface for alarming trending reporting & graphical suer interface	AC plant	92866	1	92,866
179	Grid solar plant to cover the street light connected at PCC_1 to solar power	PCC-1(CH hostel street Light)	756059	1	756,059

S No.	Asset Description	Location	Rate	Qty	Purch.Value
180	ME scope basic package VT-620 option multichannel acquisition and modal analysis	Dynamic Lab WA-110	925,549	1	925,549
181	2 channel constant temperature anemometer with software	IC lab mechanical eng dept	1,999,333	1	1,999,333
182	proteus VSM simulation software with dongle based 25 user network license 8086 advanced simulation features for systems lab A-*307 EEE dept. Ref no Po/ERP-7998 dt 24.01.18.	Embedded System A-307	16,992	25	424,800
183	Android device with pre loaded app & app lock provisions, bluetooth printer (Software) - Enabling Business registration - travel training instalton hand holding support customised with SMS package	PRO	265,500	1	<b>265,500</b>
184	WinPro 10 SNGL OLP NL Legalization GetGenuine	EEE	8,076	13	104,987
185	Flownex Thermal fluid simulation software prepetual -18 user	Mechanical Engg.	233,247	6	1,399,480
186	Xilinx Vivado System Edition Software	EEE	160,650	1	160,650
187	IBM SPSS Modeler premium 18.2	Economics Dept	36,000	25	900,000
188	Hosting setup via browser RDP split screen arrangement 1/4 screen live video feed 3/4 screen software interface	Remotte lab A-115	22,184	5	110,920
189	Software for Email and phone support response within 24 hrs	Remotte lab A-115	47,200	1	47,200
190	3*6.5" Bed with Marine plywood	AH-6 Hostel	5,487	20	109,740
191	3x6 bed with commercial plywood qty 185 no's for AH6 hostel.	Hostel	5,428	185	1,004,180
192	Aluminium double sided heavy Ladders 6 Feet	Hostel	4,200	3	12,600
193	Square Table 900*900mm colour dawn glow 511	General Admn.	11107	4	44,429
194	Round Table 900mm dia colour golden yellow	General Admn.	11595	4	46,379
195	Medium Mesh back chair An70 mesh	General Admn.	8391	12	100,694
196	E 1 seater liner non sharing	PHD Scholar in 1st floor Library	12095	10	120,950
197	Fabric Magnetic screen 1050*300	PHD Scholar in 1st floor Library	2950	10	29,500
198	Mobile Pedestal2D+1F	PHD Scholar in 1st floor Library	7257	10	72,570
199	Computer lab table half circle	CC lab -C-219	68440	10	684,400
200	Office Cupboard	SWD-B-102	11033	3	33,099

S No.	Asset Description	Location	Rate	Qty	Purch.Value
201	Wooden file storage 19mm marine ply back side	Placement office	50398	1	50,398
202	Medium Back mesh office executive chairs (black)	Admin Dept	9027	25	225,675
203	Computer lab table half circle design 19mm marine ply 1mm laminate with glass divider & front wooden partition with electric raceway,PVC edge 1.5mm thick glass.	Computer Centre	68440	12	821,280
204	Cube 50 Desk 1500*900*730 square leg metal frame (powder coated)	Library	12667	30	380,019
205	Movie chairs 4leg base PC black	Library	3125	120	374,957
206	Office Cupboard 78*36*19	Chemical Engg Dept	10,738	11	118,118
207	Writing board non magnetic WB 60*90 cm	Hostel	801	620	496,780
208	Desk cockpit non standard	ARC -AUGSD	13,989	6	83,933
209	St. cabinet+shutters 100*400*210	ARC -AUGSD	21,921	6	131,528
210	Partition P60	ARC -AUGSD	285,426	1	285,426
<b>Total</b>					<b>78,331,071</b>

## B2.15 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVAL

SAC promotes the student activities, games and sports like Cricket, Football, Tennis, Squash, Volleyball, Basketball, Badminton, Chess, Carom, Pool, and Table Tennis. SAC also promotes extra-curricular activities for students, faculty and their dependents in the campus. Daily training in football and cricket is conducted for the institute team. New Squash court has been constructed. The cricket and football ground out field has been re-laid and been developed to higher standard. Up gradation of gymnasium has been done by installing Air conditioner, latest machines and other modern equipment's. The gymnasium functions strictly under the guidance of a trainer for safety measures. The table tennis hall has been up-graded with standard LED flood lights.

In addition to this, SAC also organise sports events like Inter department/ hostel competitions/tournaments for students, and co-ordinates with students in organizing All India Inter engineering sports festival SPREE, inter staff Cricket Premier League,badminton league and other sports.

### Sports Achievements SPREE – 2017

- Institute Tennis – Winners First place in Annual Sports meet of BITS Pilani K.K.Birla Goa Campus "Spree" March 2017
- Chess team won the finals first place in BITS Pilani K.K.Birla Goa campus annual sports festival "SPREE" March 2017
- Siddhartha Mohan and Chirag Ramdas won the Doubles Badminton Championship at BITS Pilani K.K.Birla Goa campus annual sports festival "SPREE" March 2017
- Neil Thanawala won the single Tennis championship at Annual Sports festival of BITS Goa Spree 2017

### Open tournaments – 2017

- Rachit Aiyappa won the all Goa Tennis Tournament Organized by Goa Tennis Association at Cidade Goa, Panjim April 2017
- Tennis team Runner's Up – ARENA 2017, BITS Hyderabad Sports Fest(Tennis Event)
- Neil Thanawala won the single Tennis championship at Annual Sports festival of BITS Hyderabad Arena 2017

### Badminton October- 2017

- Ishaan Verma won the All Goa Major Ranking Badminton Tournament. the Men's singles title in All Goa Major Ranking "4th Rasik Painguinkar Memorial Badminton Tournament" From 11<sup>th</sup> to 15<sup>th</sup> August 2017, held at Madgaon, Goa.



**Chess – October 2017**

- Siddharth Shenoy 8th Place in All Goa Major Ranking chess Championship September 2017

**Tennis – October 2017**

- Neil Thanawala was the runner up at the annual Sports festival of BITS Pilani campus BOSOM 2017 in Tennis event

**Basketball – November 2017**

- Institute Basketball (Boys) Team won the all goa open basketball championship November -2017 at Pamjim, Organized by Don Bosco oratory.
- Akhilesh Ram and Vivek Arya got selected for the Goa state senior basketball team for the senior national championship 2018

**Football**

Institute Football team retained in IInd division league of Goa Football Association

**Award of Scholarship to Students**

SCHOLARSHIP	NO. OF STUDENTS (figures indicates no. of awards in 2018)	AMOUNT
INSTITUTE'S MERIT & MCN SCHOLARSHIP	1292	67882144
STUDENT AID FUND FINANCIAL ASSISTANCE	21	890000
NATIONAL SCHOLARSHIP	7	104000
SCHOLARSHIP FROM ADITYA BIRLA GROUP	3	300000
SCHOLARSHIP FROM BHUSHAN BHATIA	4	74790
SCHOLARSHIP FROM RELIANCE INFRATEL LTD	3	60000
MUKYAMANTRI MEDHAVI VIDYARTHI YOJANA	3	450000
DTE, CHHATTISGARH	1	20000
HON. CHIEF MINISTER SCHOLARSHIP SCHEME, GUJARAT STATE	1	50000
<b>TOTAL :</b>	<b>1335</b>	<b>69830934</b>

LOKESH GARG (2015B3A30418G) selected as 'Technical Wizkid' and honoured on IT day on 14th of July 2018, INOX Goa

**Note :**

Students are also in receipt of INSPIRE, KVPY, NTS scholarship

Students get financial assistance from different Trusts, parent's work place etc.

## LIST OF ANNEXURE

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Annexure B2-4	NUMBER OF STUDENTS REGISTERED	B2: A6
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**NAME AND DESIGNATION OF SENIOR OFFICE BEARERS OF GOA CAMPUS**

S.No.	GPSRN	Name	Department/ Facility	Activity	Designation
1.	0631	Prof. Gunaje Raghurama	EEE / Director	Director	Senior Professor
2.	0095	Prof. Sunil Bhand	Chemistry / Sponsored Research and Consulting Division	Dean, Institute Wide	Professor
3.	0006	Prof. Dhananjay Madhukar Kulkarni	Mechanical Engineering / General Administration	Dean, Campus Specific	Professor
4.	0068	Prof. Srinivas Krishnaswamy	Chemical Engineering/ Academic - Graduate Studies & Research	Dean, Institute Wide	Professor
5.	0080	Prof. Srikanth Mutnuri	Biological Sciences	HOD	Professor
6.	0310	Prof. Saroj Sundar Baral	Chemical Engineering	HOD	Associate Professor
7.	0085	Prof. Anjan Chattopadhyay	Chemistry	HOD	Associate Professor
8.	0620	Prof. Ashwin Srinivasan	Computer Science & Information Systems	HOD	Senior Professor
9.	0338	Prof. Aswini Kumar Mishra	Economics	HOD	Associate Professor
10.	0107	Prof. Amalin Prince A.	Electrical & Electronics Engineering	HOD	Associate Professor
11.	0123	Prof. Reena Cheruvalath	Humanities and Social Sciences	HOD	Associate Professor
12.	0077	Prof. Prasanna Kumar Nekkare	Mathematics	HOD	Associate Professor
13.	0482	Dr. Ranjit Shankarrao Patil	Mechanical Engineering	HOD	Assistant Professor
14.	0073	Dr. Deepak Narayana Murthy Pachattu	Physics	HOD	Assistant Professor
15.	0078	Prof. Bharat Madhusudan Deshpande	Computer Science & Information Systems / Academic Graduate Studies and Research	Associate Dean	Professor
16.	0010	Prof. Neena Goveas	Computer Science & Information Systems / Academic Under Graduate Studies	Associate Dean	Professor
17.	0094	Prof. Sutapa Roy Ramanan	Chemical Engineering / Faculty Affair Division	Associate Dean	Professor
18.	0058	Prof. Narendra Nath Ghosh	Chemistry / International Programs & Collaboration	Associate Dean	Professor
19.	0104	Prof. Meenal Kowshik	Biological Sciences / Sponsored Research & Consulting	Associate Dean	Professor
20.	0033	Prof. Anupama Karuppiah	Electrical & Electronics Engineering / Practice School Division	Associate Dean	Professor
21.	0104	Prof. Raghunath Anand Ratabole	Physics / Work Intigrated & Learning Programs	Associate Dean	Associate Professor
22.	0333	Prof. Ramesha C. K.	Electrical & Electronics Engineering / Student	Associate Dean	Associate Professor

S.No.	GPSRN	Name	Department/ Facility	Activity	Designation
			Welfare Division		
23.	0082	Prof. Veeky Baths	Biological Sciences / Alumuni Relations Division	Associate Dean	Associate Professor
24.	0068	Prof. Srinivas Krishnaswamy	Chemical Engineering / Centre for Innovation, Incubation & Entrepreneurship (CIIE)	PIC	Professor
25.	0729	Prof. Vinayak Naik	Computer Science & Information Systems / Computer Centre	FIC	Professor
26.	0107	Prof. Amalin Prince A	Electrical & Electronics Engineering / Placement	FIC	Associate Professor
27.	0062	Prof. Radhika Vathsan	Physics / Community Welfare	FIC	Associate Professor
28.	0604	Dr. Rajorshi Sen Gupta	Economics / Centre for Innovation, Incubation and Entrepreneurship (CIIE)	FIC	Assistant Professor
29.	0089	Prof. Gaurav Dar	Physics / Teaching Learning Centre	FIC	Associate Professor
30.	0377	Prof. Ram Shanker Patel	Physics / Central Sophisticated Instrumentation Facility (CISF)	FIC	Associate Professor
31.	0211	Prof. P Bhavna	Chemistry / Instruction	FIC	Professor
32.	0364	Prof. Amrita Chatterjee	Chemistry / Registration	FIC	Associate Professor
33.	0362	Prof. Chandradew Sharma	Physics / Academic Research	FIC	Associate Professor
34.	0021	Dr. Vikas Vinayak Chaudhari	Mechanical Engineering / Admissions	FIC	Assistant Professor
35.	0488	Dr. Malabika Biswas	Biological Sciences / Academic Counselling & Monitoring	FIC	Assistant Professor
36.	0414	Prof. Angshuman Sarkar	Biological Sciences / Student Welfare Division	Chief Warden	Associate Professor
37.	0009	Mr. Anand K. Patil	Purchase & Stores & Estate	IC	Estate Manager
38.	0050	Dr. Anuradha Voolapalli	Library	IC	Deputy Librarian
39.	0230	Dr. Raghavendra Kota Madhyastha	Medical Centre	IC	Chief Medical Officer
40.	0612	Mr. S. Baskar	Finance	IC	Head - Accounts
41.	0658	Mr. Sailesh Narayan Mohanty	General Administration	IC	Deputy Registrar
42.	0668	Mr. Arjun Chandrakant Halarnkar	Public Relations	IC	Public Relations Officer

**NAMES OF WARDENS OF GOA CAMPUS**

<b>S.No.</b>	<b>GPSRN</b>	<b>Name</b>	<b>Hostel</b>	<b>Activity</b>
1.	G0414	Prof. Angshuman Sarkar		Chief Warden
2.	G0343	Dr. Amit Setia	CH-1	Warden
3.	G0414	Prof. Angshuman Sarkar	CH-2	Warden
4.	G0363	Prof. Mainak Banerjee	CH-3	Warden
5.	G0211	Prof. P. Bhavana	CH-4	Warden
6.	G0588	Dr. Jegatha Nambi Krishnan	<b>CH-5</b>	Warden
7.	G0414	Prof. Angshuman Sarkar	CH-6	Warden
8.	G0420	Prof. Alamelu Geetha Krishnamurthy	CH-7	Warden
9.	G0556	Dr. Arnab Banerjee	AH-1	Warden
10.	G0500	Prof. Kundan Kumar	AH-2	Warden
11.	G0372	Dr. Manoj Kumar Pandey	AH-3	Warden
12.	G0072	Dr. V.V.S.N.V. Prasad Chundru	AH-4	Warden
13.	G0228	Dr. Mali Kiran Dinakar	AH-5	Warden
14.	G0604	Dr. Rajoshri Sen Gupta	AH-6	Warden
15.	G0565	Dr. Ravi Prasad Aduri	AH-7	Warden
16.	G0124	Dr. Sunil Kumar V.	AH-8	Warden
17.	G0506	Dr. Karthikeyan G.	AH-9	Warden
18.	G0492	Dr. Sukanta Mondal	DH-1	Warden
19.	G0114	Prof. Sanjay K Sahay	DH-2	Warden

**DETAILS OF ADMISSIONS MADE DURING THE YEAR 2018****(a) Second Semester 2017-18****Doctoral Programmes:**

Ph.D.	40(12)
	<u>40(12)</u>

**(b) First Semester 2018-19****Doctoral Programmes:**

Ph.D.	41(18)
	<u>41(18)</u>

**1. Integrated First Degree Programmes**

	No. of students joined	BITSAT Cut-off scores	
		Highest	Lowest
<b>Group A</b>			
B.E.			
Chemical	76(08)	292	260
Electrical & Electronics	84(07)	346	308
Mechanical	108(02)	344	283
Computer Science	172(10)	398	347
Electronics & Instrumentation	83(11)	343	289
Electronics & Communication	87(10)	340	314
	<u><b>610(48)</b></u>		
<b>Group B</b>			
M.Sc.			
Biological Sciences	44(04)	294	252
Chemistry	50(05)	276	255
Economics	70(04)	338	292
Mathematics	66(10)	340	277
Physics	58(10)	336	275
	<u><b>288(33)</b></u>		
<b>Group C</b>			
M.Sc.			
Information Systems			
<b>Total :</b>	<u><b>898(81)</b></u>		

**2. Higher Degree Programmes :**

M.E.	
Biotechnology	17(16)
Embedded Systems	30(14)
Computer Science	39(10)
Micro Electronics	33(06)
Chemical Engineering	12(03)
Design Engineering	38(03)
<b>Total</b>	<u><b>169(52)</b></u>

**3. Doctoral Programmes :**

Ph.D. – Full Time	34(16)
Ph.D. – Part Time	07(02)

**SUMMARY**

	II Semester 2017-18	I Semester 2018-19
<b>On-Campus Programmes</b>		
Integrated First Degree Programmes	-	898(81)
Higher Degree Programmes	-	169(52)
Doctoral Programmes	40(12)	41(18)
<b>Total</b>	<u><b>40(12)</b></u>	<u><b>1108(151)</b></u>

**STATEMENT SHOWING THE NUMBER OF CANDIDATES WHO HAVE BEEN PERMITTED IN THE ACADEMIC YEAR  
2018-2019 TO PURSUE VARIOUS DUAL DEGREE PROGRAMMES UNDER VARIOUS PRIORITIES**

(ii) **K.K. Birla Goa Campus:****FIRST PRIORITY (Dual Degree)**

(From Group 'B' to Group 'A' Programmes)

Programmes* From ↓To→	A1	A3	A4	A7	A8	AA	Total
B1	8	1	6	5	1	3	<b>24</b>
B2	7	6	6	5	8	4	<b>36</b>
B3	5	8	7	24	12	10	<b>66</b>
B4	5	11	13	21	7	12	<b>69</b>
B5	7	7	9	12	5	5	<b>45</b>
<b>Total</b>	<b>32</b>	<b>33</b>	<b>41</b>	<b>67</b>	<b>33</b>	<b>34</b>	<b>240</b>

**OTHER PRIORITY**

Programmes* From ↓ To →	A1	A3	A4	A7	A8	AA	B1	B2	B3	B4	B5	Total
A1												
A3												
A4									1	1		<b>2</b>
A7												
A8										1	1	<b>2</b>
AA												
<b>Total</b>									<b>1</b>	<b>2</b>	<b>1</b>	<b>4</b>

**B-B Transfer**

Programmes* From↓To→	B1	B2	B3	B4	B5	Total
B1						
B2				1		<b>1</b>
B3						
B4			1			<b>1</b>
B5	1		2			<b>3</b>
<b>Total</b>	<b>1</b>		<b>3</b>	<b>1</b>		<b>5</b>

**Transfer**

	A1	A3	A4	A7	A8	AA	Total
A1							
A3				1			<b>1</b>
A4		1					<b>1</b>
A7							
A8						1	<b>1</b>
AA				1			<b>1</b>
B1							
B2							
B3							
B4				2			<b>2</b>
B5							
<b>Total</b>		<b>1</b>		<b>4</b>		<b>1</b>	<b>6</b>

**\*Legend:**

A1: B.E. Chemical,

A2: B.E. Civil,

A3: B.E. Electrical &amp; Electronics,

A4: B.E. Mechanical,

A5: B.Pharm.),

A7: B.E. Computer Science,

A8: B.E. Electronics and Instrumentation,

AA: B.E. Electronics &amp; Communication,

AB: B.E. Manufacturing,

B1: M.Sc. Bio. Sciences

B2: M.Sc. Chemistry

B3: M.Sc. Economics,

B4: M.Sc. Mathematics,

B5: M.Sc. Physics,

C2: M.Sc. General Studies,

C6: M.Sc. Information Systems

C7: M.Sc. Finance.



**NUMBER OF STUDENTS REGISTERED****Second Semester 2017-2018**

Programme	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Chemical					2(0)	47(5)	75(5)	55(10)	77(12)	256(32)
EEE					6(1)	94(12)	81(9)	84(9)	82(9)	347(40)
Mechanical					2(0)	64(4)	72(1)	67(3)	96(1)	301(9)
Computer Science				1(0)	1(0)	92(12)	104(11)	104(11)	163(14)	465(48)
Electronics & Instrumentation					3(0)	56(6)	84(8)	78(10)	76(9)	297(33)
Electronics & Communication									81(15)	81(15)
<b>M.Sc.(Hons)</b>										
Biological Science				1(0)	30(5)	28(4)	44(5)	39(5)	24(9)	166(28)
Chemistry					31(5)	31(5)	39(4)	38(2)	35(10)	174(26)
Economics				2(0)	39(3)	59(7)	48(4)	46(9)	68(14)	262(37)
Mathematics				1(0)	41(4)	56(10)	47(10)	44(3)	70(11)	259(38)
Physics					33(3)	53(3)	42(4)	40(3)	48(7)	216(20)
<b>Total</b>	0	0	0	5(0)	188(21)	580(68)	636(61)	595(65)	820(111)	2824(326)
<b>B. Higher Degree Programmes</b>										
Biotechnology								4(4)	15(10)	19(14)
Design Engg.								0(0)	16(1)	16(1)
Embedded System								7(4)	15(7)	22(11)
Chemical Engg.			1(0)					5(2)	12(7)	18(9)
Microelectronics								11(3)	13(5)	24(8)
Computer Science								8(0)	16(7)	24(7)
<b>Total</b>	0	0	1(0)	0	0	0	0	35(13)	87(37)	123(50)
<b>Grand Total</b>	0	0	1(0)	5	188(21)	580(68)	636(61)	630(78)	907(148)	2947(376)

## First Semester 2018-2019

Programme	Year of Admission									Total
	2010	2011	2012	2013	2014	2015	2016	2017	2018	
<b>A. Integrated First Degree Programmes</b>										
<b>B.E.(Hons.)</b>										
Chemical				2	4	74(5)	55(10)	77(12)	75(8)	287(35)
EEE				1	5	80(9)	83(8)	81(9)	84(7)	334(33)
Mechanical					4	71(1)	65(3)	96(1)	108(2)	344(7)
Computer Science			2		3(1)	102(11)	104(11)	163(14)	171(9)	545(46)
Electronics & Instrumentation				1	2	83(8)	78(10)	76(9)	83(11)	323(38)
Electronics & Communication								81(15)	87(10)	168(25)
Biological Science				3	29(4)	44(5)	39(5)	24(9)	44(4)	183(27)
Chemistry				2	31(5)	39(4)	38(2)	35(10)	51(6)	196(27)
Economics				3(2)	59(7)	48(4)	45(9)	67(14)	70(4)	292(40)
Mathematics				1	53(9)	47(10)	44(3)	70(11)	66(10)	281(43)
Physics				1	49(3)	42(4)	40(3)	48(7)	57(9)	237(26)
<b>Total</b>	0(0)	0(0)	2(0)	14(2)	239(29)	630(61)	591(64)	818(111)	896(80)	3190(347)
<b>B. Higher Degree Programmes</b>										
Biotechnology								15(10)	17(16)	32(26)
Design Engg.								16(1)	38(3)	54(4)
Embedded System								15(7)	30(14)	45(21)
Chemical Engg.								12(7)	12(3)	24(10)
MicroElectronics								12(5)	33(6)	45(11)
Computer Science								16(7)	39(10)	55(17)
<b>Total</b>								86(37)	169(52)	255(89)
<b>Grand Total</b>	0(0)	0(0)	2(0)	14(2)	239(29)	630(61)	591(64)	904(148)	1065(132)	3445(436)

**C. PhD Programmes**

	Year of Admission										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Semester II 2017-2018	1(1)	5(3)	2(0)	7(5)	46(18)	19(3)	34(13)	47(16)	66(22)		227(81)
Semester I 2018-2019		4(3)	1(0)	3(2)	38(15)	18(3)	34(14)	46(16)	63(20)	37(14)	244(87)
Summer term 2017-2018				3(1)	4(1)						7(2)
<b>Grand Total</b>	1(1)	9(6)	3(0)	13(8)	88(34)	37(6)	68(27)	93(32)	129(42)	37(14)	478(170)

**Summer Term 2017-2018**

Programme	2012	2013	2015	2016	2017	Total
Chemical				54(10)		54(10)
EEE				79(7)		79(7)
Mechanical				64(3)		64(3)
Computer Science				102(10)		102(10)
Electronics & Instrumentation				76(10)		76(10)
<b>M.Sc.(Hons)</b>						
Biological Science			1(0)	38(5)		39(5)
Chemistry			3(1)	38(2)		41(3)
Economics			3(0)	46(9)		49(9)
Mathematics			3(1)	40(3)	1(0)	44(4)
Physics			6(1)	34(2)		40(3)
<b>Total</b>	0	0	16(3)	571(61)	1(0)	588(64)

**Summer Term 2017-2018**

Programme	2012	2013	2015	2016	2017	Total
Chemical				54(10)		54(10)
EEE				79(7)		79(7)
Mechanical				64(3)		64(3)
Computer Science				102(10)		102(10)
Electronics & Instrumentation				76(10)		76(10)
<b>M.Sc.(Hons)</b>						
Biological Science			1(0)	38(5)		39(5)
Chemistry			3(1)	38(2)		41(3)
Economics			3(0)	46(9)		49(9)
Mathematics			3(1)	40(3)	1(0)	44(4)
Physics			6(1)	34(2)		40(3)
<b>Total</b>	0	0	16(3)	571(61)	1(0)	588(64)

**STATEMENT OF DEGREES AWARDED**

Degrees	No. of degrees	No. of degrees
	83th Award 28.3.18, 25.6.18,11.7.18,19.7.18	84th Award 28.9.18, 3.12.18, 4.1.19
<b>(i) Integrated First Degree</b>		
<b>B.E.(Hons.)</b>		
Chemical	13(3)	2(0)
Chemical (with Practice School)	45(4)	6(0)
Electrical and Electronics	24(4)	4(1)
Electrical and Electronics (with Practice School)	108(14)	6(0)
Mechanical	20(3)	6(0)
Mechanical (with Practice School)	75(2)	3(2)
Computer Science	22(5)	6(1)
Computer Science (with Practice School)	110(14)	4(1)
Electronics and Instrumentation	8(1)	2(0)
Electronics and Instrumentation (with Practice School)	85(7)	<b>4(0)</b>
Biological Sciences	13(4)	<b>1(0)</b>
Biological Sciences (with Practice School)	15(1)	<b>1(0)</b>
Chemistry	8(1)	-
Chemistry (with Practice School)	22(4)	-
Economics	8(0)	1(1)
Economics (with Practice School)	31(1)	1(1)
Mathematics	15(2)	-
Mathematics (with Practice School)	29(3)	1(0)
Physics	26(4)	-
Physics (with Practice School)	12(0)	-
<b>Sub Total</b>	<b>689(77)</b>	<b>48(7)</b>

Degrees	No. of degrees	No. of degrees
	83th Award 28.3.18, 25.6.18,11.7.18,19.7.18	84th Award 28.9.18, 3.12.18, 4.1.19
<b>(ii) Higher Degree</b>		
<b>M.E.</b>		
Chemical Engineering	6(2)	
Computer Science	2(0)	
Microelectronics	-	
Biotechnology	4(4)	
Embedded Systems	-	
Computer Science (with Practice School)	6(0)	
Microelectronics(with Practice School)	11(3)	
Biotechnology	-	3(3)
Embedded Systems (with Practice School)	7(4)	
<b>Sub Total</b>	36 (13)	3(3)
<b>Ph.D</b>	17 (8)	7(4)
<b>Total</b>	<b>742(98)</b>	<b>58(14)</b>

## SUMMARY

Award	83 Award	84 Award	Total
Integrated First Degree	689(77)	48(7)	737(84)
Higher Degree	36 (13)	3(3)	39(16)
<b>Ph.D</b>	17 (8)	7(4)	24(12)
<b>Total</b>	<b>742(98)</b>	<b>58(14)</b>	<b>800(112)</b>

**Note:** The numbers in brackets indicate number of female students.

Annexure `B2-6'  
(1 Pages)  
Ref. AR 2018, Page No.B2-3

**84 AWARD OF DEGREES TO BE APPROVED BY THE 65<sup>th</sup> MEETING OF  
THE BOARD OF GOVERNORS**

(No. in brackets indicates no. of female students)

Programme	Dist	I	II	Total
B.E.(Hons.)(Chemical)(with Practice School)	0	0	6	6(0)
B.E.(Hons.)(Chemical)	0	0	2	2(0)
B.E.(Hons.)(Electrical and Electronics)(with Practice School)	0	5	1	6(0)
B.E.(Hons.)(Electrical and Electronics)	0	4	0	4(1)
B.E.(Hons.)(Mechanical)( with Practice School)	1	2	0	3(2)
B.E.(Hons.)(Mechanical)	1	1	4	6(0)
B.E.(Hons.)(Computer Science)	0	5	1	6(1)
B.E.(Hons.)(Computer Science)(with Practice School)	0	2	2	4(1)
B.E.(Hons.)(Electronics and Instrumentation)	0	1	1	2(0)
B.E.(Hons.)(Electronics and Instrumentation) (with Practice School)	0	1	3	4(0)
M.Sc.(Hons.)(Biological Sciences)	0	0	1	1(0)
M.Sc.(Hons.)(Biological Sciences) (with Practice School)	0	0	1	1(0)
M.Sc.(Hons.)(Economics) (with Practice School)	0	1	0	1(1)
M.Sc.(Hons.)(Economics)	0	1	0	1(1)
M.Sc.(Hons.)(Physics) (with Practice School)	0	0	0	-
M.Sc.(Hons.)(Physics)	0	0	0	-
M.Sc.(Hons.)(Chemistry)	0	0	0	-
M.Sc.(Hons.)(Maths) (with Practice School)	0	0	1	1(0)
<b>Sub - Total</b>	<b>2</b>	<b>23</b>	<b>23</b>	<b>48(7)</b>
M.E				<b>3(3)</b>
Ph.D.				<b>7(4)</b>
<b>TOTAL</b>				<b>58(14)</b>

**Note:** Numbers in brackets indicate total females

Annexure `B2-7`

(4 Pages)

Ref. AR 2018, Page No.B2-4

**LIST OF THE ORGANISATIONS WHICH CONDUCTED CAMPUS INTERVIEWS****LIST OF THE COMPANIES VISITED / RECRUITED FOR THE AY 2017-18**

SR.#	COMPANY VISITED / RECRUITED	NUMBER OF STUDENTS		SECTOR
		INTERVIEWED	OFFERS	
1	159 Solutions	65	5	IT
2	Absentia	1	1	IT
3	ABSTC	2	2	CH
4	Accenture	5	0	CO &AN
5	ADM Agro	25	1	CH
6	Aeques	6	1	CH
7	Altisource Business Solutions	2	2	IT
8	Amazon	95	17	IT
9	American Express	4	4	IT
10	Anarock	35	0	IT
11	Apple India Private Limited	2	2	IT
12	Arcesium	2	2	IT
13	ARM	3	3	ET
14	Bajaj Auto	2	2	MF
15	Barclays	15	0	BF
16	Belong tech	1	1	IT
17	Binani - 3 B Fibre glass	10	1	CH
18	Birla Century	15	1	CH
19	Bitmapper	20	3	ET
20	Blue Jeans Network India Pvt. Ltd. , Bangalore	1	1	IT
21	BlueOptima	10	0	IT
22	CA Tech	1	1	IT
23	Capgemini	25	13	IT
24	Capillary	50	9	CO &AN
25	Cetas Healthcare	25	4	AN
26	CGI	15	4	IT
27	Cisco	1	1	ET
28	Cognizant	75	18	IT
29	Credit Suisse	2	2	BF
30	Cypress Semiconductors	4	2	ET
31	DBOI	35	6	IT
32	Deccan Fine Chemicals	40	3	CH
33	Deloittee	2	2	AN
34	Deshpande Foundation	23	1	IT
35	Direct i	82	8	IT
36	Dream Vu	41	5	IT
37	Embibe	13	1	IT
38	EMC , Bangalore	1	1	IT

SR.#	COMPANY VISITED / RECRUITED	NUMBER OF STUDENTS		SECTOR
		INTERVIEWED	OFFERS	
39	Ericsson Global India Pvt. Ltd.	2	2	IT
40	EXL Services	14	1	IT
41	Fiorano	27	2	IT
42	Flipkart	112	20	IT
43	FOYR	1	1	IT
44	Future First	66	6	BF
45	Genpact	2	2	IT
46	GGK Tech	21	6	IT
47	Golden Hill capital	1	1	BF
48	Goldman Sachs	56	6	IT
49	Goodera	2	2	IT
50	Grey Orange	40	2	ET
51	Halftick	26	2	IT
52	Here Maps	3	3	IT
53	Histogenetics	12	2	IT
54	Honeywell	30	4	CH
55	HSBC	85	6	CO &AN
56	IBM	45	2	IT
57	IDEAS-AS	1	1	IT
58	IFB	18	1	ET
59	IMI Mobile	2	2	IT
60	Infosys	35	4	IT
61	Infoworks	100	3	IT
62	InMobi	4	4	IT
63	Intas Pharma	8	0	BP
64	Intel	2	2	ET
65	Intuit	5	5	IT
66	IQVIA	1	1	CH
67	IVP	17	1	IT
68	Jivox	45	2	IT
69	JP Morgan Services - Quant , Mumbai	9	9	BF
70	JPMC	34	5	IT
71	Knolscape	27	3	IT
72	L&T Construction	34	6	MF
73	Lithium Tech	57	4	IT
74	Lowes	29	2	AN
75	Magnitude Software	35	1	IT
76	Mahindra & Mahindra	5	1	MF
77	Mathworks	45	0	ET
78	Mckinsey	1	1	CO
79	Media IQ Digital	2	2	IT
80	Mediatek	45	5	ET
81	Mentor graphics	2	2	ET



SR.#	COMPANY VISITED / RECRUITED	NUMBER OF STUDENTS		SECTOR
		INTERVIEWED	OFFERS	
82	Michelin Tyres	7	0	CH
83	Microsoft IDC	10	10	IT
84	Morgan Stanley	4	4	BF
85	Moringstar	1	1	AN
86	Musigma	2	2	CO &AN
87	NestAway	6	6	IT
88	Netapp	16	2	IT
89	Next Education	15	0	IT
90	Nomura	1	1	IT
91	Novartis	2	2	IT
92	NIT	1	1	OT
93	Nucleus Software	5	5	IT
94	Nutanix	55	2	IT
95	Nvidia Graphics	4	4	ET
96	OFSS	130	10	IT
97	Oracle	127	12	IT
98	Orbees	17	1	CO &AN
99	Oyo Rooms	18	0	IT
100	Paypal	34	6	IT
101	PayU	30	3	IT
102	Petasense	1	1	IT
103	Pirmal Group	1	1	BP
104	Postman	45	4	IT
105	Qualcomm	75	11	ET
106	Quantiphi	86	18	CO &AN
107	Qubole	3	3	IT
108	Rao IIT	28	9	OT
109	RedSeer Management Consulting Pvt. Ltd.	1	1	AN
110	Reflexis	22	7	IT
111	Reliance Industries	25	7	CH
112	Reliance Petrochemicals	15	1	CH
113	Report garden	1	1	AN
114	Rivigo	1	1	IT
115	Samsung R&D	2	2	IT
116	Sandisk	37	5	ET
117	Servicenow	45	3	IT
118	Siemens	43	7	IT
119	Skoda	2	2	MF
120	Slingmedia	27	3	IT
121	Statestreet	2	2	IT
122	swiggy	3	3	IT
123	Symentec	3	3	IT
124	Syngene	10	0	BP

SR.#	COMPANY VISITED / RECRUITED	NUMBER OF STUDENTS		SECTOR
		INTERVIEWED	OFFERS	
125	Target	55	8	IT
126	Tata Autocomp	15	1	MF
127	Tata Motors	23	8	MF
128	Tata Trust	27	12	OT
129	Tavisca	22	1	IT
130	TCS Analytics	15	1	AN
131	Tech Racers	12	3	IT
132	Tejas Networks	26	3	IT
133	Tesco	7	7	IT
134	Tesco Analytics	1	1	CO &AN
135	Texas Instruments	45	4	ET
136	The Math Company	25	3	CO &AN
137	Tonbo Imaging	1	1	ET
138	Tredence	35	4	CO &AN
139	Truecaller	1	1	IT
140	Uber	85	5	IT
141	Upgrad	62	13	CO &AN
142	UST Global	4	4	IT
143	Vega Conveyors and Automation Ltd.	1	1	MF
144	Veritas	16	1	IT
145	Vizury	4	4	IT
146	Walmart	3	3	IT
147	Webware	2	1	IT
148	Wipro	45	3	IT
149	Xilinx	36	2	ET
150	Zendrive	22	3	IT
151	Zeotap	1	1	AN
152	ZS Associates	135	16	CO &AN
	Total	3553	549	

**Summary**

<b>Total No. of Companies:</b>	152
<b>Total No. of Students Interviewed:</b>	3553
<b>Total No. Appointments offered including multiple offers:</b>	549

**Legend:**

IT: Information Technology, CH: Chemical, MF: Manufacturing, CO & AN: Consulting and Analytics, ET: Electronics, BF: Banking Finance, EL: Electrical, S & M - Sales & Marketing, OT - Others

BITS Pilani

# annual report 2018

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Part B3: Hyderabad Campus



## CONTENTS

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**B3.1 SENIOR OFFICERS AND APPOINTMENTS****(a) Senior Officers**

- a) Prof. G Sundar, Senior Professor and Director, BITS Pilani Hyderabad Campus
- b) Prof. Niranjan Swain, Professor and Dean, Administration
- c) Prof. Suman Kapur, Senior Professor and Dean, International Programmes and Collaboration Division (Institute-wide)
- d) Prof. Sourie Banerjee, Professor and Dean, Faculty Affairs (FA) (Institute-wide)

**(b) New appointments**

- a) Mr. Rajneesh Mishra, Deputy Registrar
- b) Dr. Jenny Mercy Augustine, Medical Officer
- c) Mr. Ajay Ekanath Gaikwad, Manager-IT
- d) Mr. Krishna Swami Mohan, DGM (Operations) WILP
- e) Mr. Puram Ramachandra, Program Head (ERP)

The names and designations of senior officers of Hyderabad Campus are given in Annexure 1 (part B3)

**B3.2 ADMISSIONS**

The number of students admitted in each of the semesters is given below.

	&Integrated First Degree Programmes		Higher Degree Programmes		Integrated Higher Degree Programmes		*Doctoral Programmes (PhD Full-time)		§Doctoral Programmes (PhD Part-time)		Total
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	
Second Semester 2017-18	-	-	-	-	-	-	46	19	8	1	54 (20)
First Semester 2018-19	1093	190	229	79	-	-	38	21	7	2	1367 (292)
<b>Grand Total</b>											<b>1421 (312)</b>

& Incl. of both – BITSAT category & International Students category

\* Incl. of both – Full time & Faculty input

§ Incl. of both – Part time & Aspirants

**B3.3 DUAL DEGREE AND TRANSFERS**

During the Year 2018, a total no of 269 students (out of 269 offers: Priority 1 – 267, Other Priorities - 2) were permitted to pursue concurrently two first degrees under the Dual Degree scheme as per details given Annexure2 (Part B1).

**TRANSFERS:**

During the Year 2018, a total no of **16** students (11 A-A transfers + 5 B-B transfers) were permitted to transfer from the initial allotment of First Degree programme to the other programmes of First Degree to pursue under the Transfers scheme as per details given Annexure2 (Part B1).

**VERTICAL TRASFERS:**

During the year 2018, One student was permitted to transfer from Higher Degree to Ph.D. Programme at Hyderabad Campus.

**B3.4 ACADEMIC CALENDAR**

The Academic year of the Institute is divided into two semesters and a summer term.

	Starting Date	Ending Date	No of Instruction Days (Excluding Examination Days)
Second semester 2017-2018	08.01.2018	28.04.2018	84
First Semester 2018-2019	02.08.2018	29.11.2018	88
Summer Term 2017-2018	22.05.2018	11.07.2018	40

**B3.5 COURSES OFFERED**

The number of courses, offered during the year 2018 are as follows:

	Number of Courses Offered
Second semester 2017-2018	329
First Semester 2018-2019	353
Summer Term 2017-2018	28

During the year the following new courses are added

Second semester 2017-2018	5
First Semester 2018-2019	7

The list of new courses added is attached as a separate **Annexure 3 (Part B3)**.

**B3.6 REGISTRATION OF STUDENTS**

The registration processes for both the semesters was completed on the first day of each semester.

	Number of students registered
Second Semester 2017-2018	3799
Summer Term 2017-2018	805
First Semester 2017-2018 (only FD students)	3726

Details of Registration of students for the First Semester 2018-2019 are given in Annexure 4 (Part B3)

**B3.7 ACADEMIC AND PROFESSIONAL COUNSELLING****II Semester 2017 – 2018**

There were **112** students under the purview of the Academic Counselling Board (ACB) at the beginning of the First Semester 2017 – 2018. At the end of First Semester 2017 – 2018, **68** students who have fulfilled the minimum academic requirements as per the Academic Regulations and the stipulations laid down by the ACB were declared outside the purview of ACB. **91** new cases came under the purview of ACB at the end of First Semester 2017-2018. The total number of students who are under the purview of ACB at the beginning of Second Semester 2017-2018 is **135**.

The details are given below:	No. of Students
Under the purview of ACB at the beginning of First Semester 2017 – 2018	112
Declared outside the purview of ACB at the end of First Semester 2017 – 2018	68
Continue to be under the purview of ACB	44
New cases referred to ACB at the end of First Semester 2017 – 2018	91
Under the purview of ACB during Second Semester 2017-2018	135

**I Semester 2018 – 2019**

There were **135** students under the purview of the Academic Counselling Board (ACB) at the beginning of the Second Semester 2017 – 2018. At the end of Second Semester 2017 – 2018, **45** students who have fulfilled the minimum academic requirements as per the Academic Regulations and the stipulations laid down by the ACB were declared outside the purview of ACB. **21** students left the Institute and **51** new cases came under the purview of ACB at the end of Second Semester 2017-2018. The total number of students who are under the purview of ACB at the beginning of First Semester 2018-2019 is **120**.

The details are given below:	No. of Students
Under the purview of ACB at the beginning of Second Semester 2017 – 2018	135
Declared outside the purview of ACB at the end of Second Semester 2017 – 2018	45
Left the Institute	21
Continue to be under the purview of ACB	69
New cases referred to ACB at the end of Second Semester 2017 – 2018	51
Under the purview of ACB during First Semester 2018-2019	120



**B3.8 AWARD OF DEGREES**

Convocation was conducted on Sunday 12<sup>th</sup> August, 2018, the Vice Chancellor Prof. Souvik Bhattacharyya have participated in the Convocation of the campus for award of various degrees (First Degree, Higher Degree and Ph.D) to 793 students.

**LIST OF INTEGRATED FIRST DEGREE PROGRAMMES FOR AWARD OF MEDALS**

S.No.	Name and ID No	CGPA Obtained	Position Obtained	Type of Medal to be Awarded
1	Aniketh Janardhan Reddy, 2014A7TS0096H	9.93	FIRST	GOLD
2	V Arvind Rameshwar, 2014AATS0299H	9.93	FIRST	GOLD
3	Kevin Biju, 2014A7PS0032H	9.91	SECOND	SILVER
4	Dusi Aditya, 2014AAPS0598H	9.90	THIRD	BRONZE

During the year, a total of 793 students graduated and the details are as follows:

S. No	Programmes	B.E. (Hons.)	M.Sc. (Hons.)	M.Sc. (Tech.)	H.D.	Ph. D	Total
<b>First Degree</b>							
1.	Chemical Engineering	43					43
2.	Civil Engineering	44					44
3.	Electrical & Electronics Engineering	75					75
4.	Mechanical Engineering	63					63
5.	B. Pharmacy	10					10
6.	Computer Science Engineering	148					148
7.	Electronics and Instrumentation	28					28
8.	Electronics and Communication	83					83
9.	Manufacturing Engineering	30					30
10.	Biological Sciences		30				30
11.	Chemistry		25				25
12.	Economics		39				39
13.	Mathematics		43				43
14.	Physics		28				28
	<b>Sub-Total</b>	<b>524</b>	<b>165</b>				<b>689</b>
<b>Higher Degree</b>							
15.	M.E. Computer Science				9		9
16.	M.E. Chemical				6		6
17.	M.E. Biotechnology				6		6
18.	M.E. Communication				8		8
19.	M.E. Design Engineering				9		9
20.	M.E. (Civil with specialization in Structural Engineering)				8		8
21.	M.E. (Mechanical with specialization in Thermal Engineering)				9		9
22.	M.Pharm (with specialization in Pharmaceutics)				11		11
23.	M.E. (Computer Science with specialization in Information Security)				6		6
	<b>Sub-Total</b>						<b>72</b>
24.	<b>Ph.D</b>					<b>32</b>	<b>32</b>
	<b>Grand Total</b>						<b>793</b>

**B3.9 CAMPUS INTERVIEWS AND PLACEMENT**

Number of companies which conducted campus interviews	190
No of offers made	722

The discipline-wise statistics and the list of organizations which conducted campus interviews during the year are given in **Annexure 5 (Part B3)**.

### B3.10 Department -wise report

#### B3.10.1 Biological Sciences

##### Number of faculty members

Senior Professors, Profes sors	01
Associate Professors	06
Assistant Professors	08
Lecturers	0
Visiting Faculty	0

Head of the Department : Prof K. Naga Mohan

Contact details: Email: [kommumohan@gmail.com](mailto:kommumohan@gmail.com)  
[mohankn@hyderabad.bits-pilani.ac.in](mailto:mohankn@hyderabad.bits-pilani.ac.in)

Number of PhD Scholars: 30

##### i. Sponsored Research activities:

##### Ongoing projects

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Co-treatment of domestic septage and municipal solid waste landfill leachate using dry-thermophilic anaerobic digestion for the production of bioenergy and biofertilizer	P. Sankar Ganesh	BIRAC	28	2 Years
2	Characterization of a mouse embryonic stem cell model to study the effects of increased levels of DNA methyltransferase 1 (DNMT1) on abnormal neurogenesis	Dr Kommu NagaMohan	DST	40.38	2014-2018
3	Transgenic Embryonic stem cell models for studying the role of elevated levels of DNMT1, and DNMT3A in neuropsychiatric disorders.	Dr Kommu NagaMohan	DBT	25.0	2014-2018
4	Mechanistic basis of abnormal neurogenesis due to HSN1E-associated DNA methyltransferase 1 (Dnmt1) mutation and pharmacological intervention for phenotypic correction	Dr. Kommu Naga Mohan	DBT	68.40	2017-2020
5	Combined Genetic and Epigenetic Analysis of Oral cancer for prognosis of patients	K. Naga Mohan	DBT	138.0	2018-2021
6	Harnessing mucosal immunity towards improved resistance against tuberculosis.	Dr. Ruchi Jain Dey	DBT-Ramalinga swamy Fellowship	32.5	2018-2023
7	Protein structure and stability modulation due to In-Cell and In-Vitro Crowding: Molecular insights on the origin of the effects of crowding	Ramakrishna Vadrevu	DST	54	2017-2020
8	Sequence based design and characterization of peptide-amyloid nano material: Exploring functionalit	Ramakrishna Vadrevu	BRNS	29.7	2018-2021

## Projects sanctioned during the year

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	CConditional pathogenesis: understanding why potentially beneficial rhizobacteria turn pathogenic under certain environmental conditions.	Dr. Sridev Mohapatra	DBT	45	3 years
2	Understanding the role of long non-coding RNAs (lncRNAs) in transforming growth factor-beta (TGF- $\beta$ ) pathway in Glioblastoma	Dr. Vivek Sharma	DST-SERB	47	3 years
3	Identification of the regulatory mechanisms executed by bile acids during inflammation induced colon cancer	Dr. Trinath Jamma	DST-SERB ECRA	43	3 years

## ii. Publications:

1. Imran Khan, Nivetha Sivasankaran, Ravikiran Nagarjuna, R. Ganesan\* and Jayati Ray Dutta\* , Extracellular probiotic lipase capped silver nanoparticles as highly efficient broad spectrum antimicrobial agents. *RSC Advances* , 8, 2018, pp. 31358-65.
2. Imran Khan, Ravikiran Nagarjuna, Jayati Ray Dutta\* and R. Ganesan\* , Towards single crystalline, highly monodisperse and catalytically active gold nanoparticles capped with probiotic *Lactobacillus plantarum* derived lipase, *Applied Nanoscience*, 2018, <https://doi.org/10.1007/s13204-018-0735-7>.
3. Imran Khan, Sandeep K Vishwakarma, Aleem Ahmed Khan, Ramakrishnan Ganesan and Jayati Ray Dutta, In vitro hemocompatibility evaluation of gold nanoparticles capped with *Lactobacillus plantarum* derived lipase" *Clinical Haemorrhology and Microcirculation* , 69, 2018, pp. 197-205.
4. Bakhya Shree and Vivek Sharma. Linc'ing' RNA to DNA Repair. Proc Indian Natn Sci Acad 84 No. 2 June 2018 pp. 521-529.
5. Anurag Gautam and Pragya Komal (2018) Probable ideal size of Ln3+ -based upconversion nanoparticles for single and multimodal imaging *Co-ordination Chemistry Reviews* 393–404 (376)
6. Daipayan Ghosh, Anshika Gupta, Sridev Mohapatra. 2018. Dynamics of endogenous hormone regulation in plants by phytohormone secreting rhizobacteria under water-stress. *Symbiosis*. Epub ahead of print DOI: <https://doi.org/10.1007/s13199-018-00589-w>
7. Daipayan Ghosh\*, Sunetra Sen\*, Sridev Mohapatra. 2018. Drought-mitigating *Pseudomonas putida* GAP-P45 modulates proline turnover and oxidative status in *Arabidopsis thaliana* under water stress. *Annals of Microbiology*. 68 (9): 579–594. \* Equal contribution.
8. Sunetra Sen, Daipayan Ghosh, Sridev Mohapatra. 2018. Modulation of polyamine biosynthesis in *Arabidopsis thaliana* by a drought mitigating *Pseudomonas putida* strain. *Plant Physiology and Biochemistry*. 129:180-188.
9. Debkumar Chakraborty, P. Sankar Ganesh, P. C. Suryawanshi, B. G. Prakash Kumar, S. Ramachandran, Thermophilic biomethanation of food waste for production of biogas and concomitant use of biogas as fuel supplement for cooking, *Bioprocess Engineering for a Green Environment*, ISBN: 9781138035973, Routledge, Taylor & Francis, 2018.
10. Siva Prasad Bitragunta, Aarathi Menon Sankar, Sankar Ganesh Palani, Recent advances in toxicology of gold nanoparticles, ISBN: 978-3-319-58538-3, Springer, 2018.
11. Reddy VS, Madala SK, Trinath J, Reddy GB. Extracellular small heat shock proteins: exosomal biogenesis and function. *Cell Stress Chaperones*. 2018. 23(3):441-454.
11. Kadumuri RV, Vadrevu R. (2018). Diversity in  $\alpha\beta$  and  $\beta\alpha$  Loop Connections in TIM Barrel Proteins: Implications for Stability and Design of the Fold. *Interdiscipl Sci* ,10, 805-812

## iii. Conferences attended/papers presented:

1. Almas Shamaila Mohammed, Ravikiran Nagarjuna, Mahammed Nanne Khaja, Ramakrishnan Ganesan and Jayati Ray Dutta, Colorimetric Detection of Hepatitis C Viral Nucleic acid Using Unmodified Gold Nanoparticles, International Conference on Biotechnological Research and Innovation for Sustainable Development, (BioSD-2018), IICT, Hyderabad, 22-25 Nov, 2018.

2. PVSLSS Narayana and Jayati Ray Dutta, Economical approach in production and purification of *Shigella flexneri* polysaccharide: A potential conjugate candidate, International Conference on Biotechnological Research and Innovation for Sustainable Development, (BioSD-2018), IICT, Hyderabad, 22-25 Nov, 2018.
3. Sri Charan, P. Madhuri, Jayati Ray Dutta and Ramesh B. Adusumalli, Structural characterization of wood and kraft pulp fibres, oral presentation in AGI, National conference on *Recent advances and challenges in chemical Engg & applied chemistry*, Hyderabad, 16-17 March, 2018.
4. Imran Khan, Sandeep K. Viswakarma, A. A. Khan, R. Ganesan and Jayati Ray Dutta, Lactobacillus sps. lipase capped gold nanoparticles hemocompatibility studies, 4th Biennial Conference of PAI and International Symposium on Probiotic Therapy: Translating to Health and Clinical Practice (PAI-2018), AIIMS, Delhi, 2018, Feb 16-17, India.
5. Nivetha Sivasankaran, Imran Khan, Raj Maguluri, Ravikiran Nagarjuna, R. Ganesan and Jayati Ray Dutta, Evaluation of antimicrobial activity of *Lactobacillus* sps. lipase capped silver nanoparticle, National Symposium on "Emerging Environmental Challenges: An Engineering Approach (EEC-2018)" February 16, 2018 at BITS-Pilani, Hyderabad Campus.
6. Nivetha Sivasankaran, R. Ganesan and Jayati Ray Dutta, Antimicrobial activity study using silver nanoparticle capped with probiotic *Lactobacillus plantarum* lipase, Indian Analytical Science Congress on Innovations and Emerging Advances in Analytical Science & Technology, Kottayam, Kerala, 2018, Feb 8-10, India.
7. Heir R, Komal P, Franquin M, Chambon J and Stellwagen D (2018) The glial source of TNF during homeostatic synaptic plasticity. 12<sup>th</sup> Annual Canadian Neuroscience Meeting, Abstr., Vancouver, British Columbia, Canada, Poster.
8. Franquin M, Kolahdouzan M, Ponroy B, Komal P, Ernst C, Stellwagen D (2018) Synaptic changes in the ALS cortex: an interplay between neurons and astrocytes. 12<sup>th</sup> Annual Canadian Neuroscience Meeting, Abstr., Vancouver, British Columbia, Canada, Poster.
9. Komal P, Exposure to nicotine during pregnancy causes vitamin D deficiency and increases the risk of developing neuropsychiatric disorders in the offspring, young investigators meeting, 18th-19th August, 2018, Hyderabad, India.
10. Manjari SKV, Komal P, Neuroprotective role of TNF- $\alpha$ -loaded Ln<sup>3+</sup>-based upconversion nanoparticles in **mouse model huntington's disease**, International Conference on Life Science Research & its Interface with Engineering and Allied Sciences (LSRIEAS-2018), November 1-3, 2018, BITS-Pilani, Pilani Campus, Rajasthan, India.
11. Anurag Gautam and Komal P, Probable ideal size of Ln<sup>3+</sup>-based upconversion nanoparticles for single and multimodal imaging, 7th Interdisciplinary Symposium On Materials Chemistry, Bhabha atomic research centre (BARC), Mumbai, December 4-8, 2018.
12. Sunetra Sen, Daipayan Ghosh, Sridev Mohapatra. Modulation of polyamine biosynthesis and redox state in *Arabidopsis thaliana* by a drought mitigating *Pseudomonas putida* strain. LSRIEAS, BITS-Pilani Pilani Campus, Rajasthan, November 2018.
13. N. Anand, V. Chinnumole, Seyoum Leta, P. Sankar Ganesh, Co-Biomethanation of Municipal Solid Waste Landfill Leachate and Domestic Septage, **National symposium on "Emerging environmental challenges: An Engineering approach (EEC) 2018"**, Hyderabad, February, 2018.
14. N. Jyothi, N. Anand, P. Sankar Ganesh, Biological Treatment of Municipal Solid Waste Landfill Leachate, **National symposium on "Emerging environmental challenges: An Engineering approach (EEC) 2018"**, Hyderabad, February, 2018.
15. Shreya Kulkarni, Sajeli Begum, P. Sankar Ganesh, Extraction and Purification of Bromelain from Pineapple Waste, **National symposium on "Emerging environmental challenges: An Engineering approach (EEC) 2018"**, Hyderabad, February, 2018.
16. B. Siva Prasad, P. Sankar Ganesh, Application of Dynamic Light Scattering in Biomolecular Science, **National Workshop on Advanced Technologies for Biomolecule Separations, Vishakhapatnam, February, 2018.**
17. B. Siva Prasad, P. Sankar Ganesh, Label-Free Quantitation of Proteomic Responses Triggered by Rutile Titanium Dioxide Nanoparticles, **Society of Toxicology's 57th Annual Meeting, Texas, March, 2018.**
18. B. Siva Prasad, P. Sankar Ganesh, Application of ICP-OES in evaluating agglomeration of Titanium dioxide nanoparticles, **National Seminar on Emerging Trends in Analytical Sciences (ETAS-2018), Hyderabad, July, 2018.**

19. B. Siva Prasad, V. V. Chinnumole, P. Sankar Ganesh, Application of Engineered Nanomaterials for Microalgae Cultivation and Biodiesel Production, International Conference on Biotechnological research and Innovation for Sustainable Development (BioSD 2018), Hyderabad, November, 2018.
20. N. Anand, V.V. Chinnumole, P. Sankar Ganesh, Effect of Inoculation on Anaerobic Digestion of Food Waste, 8th International Conference on Sustainable Waste Management, 2018, Vijayawada November, 2018.
21. N. Anand, Mayank Gupta, Chinnumole, VV, P. Sankar Ganesh, Effect of effluent addition on compost characteristics, International Conference on Life Sciences Research & its Interface with Engineering and Allied Sciences (LSRIEAS, 2018), Pilani, November, 2018.
22. P. Khandelia, K. Yap and E.V. Makeyev. Streamlined platform for short hairpin RNA interference and **transgenesis in cultured mammalian cells**. Conference on “Muscle Biology In Health & Disease”, NUS, Singapore, March 1-2, 2018.
23. P. Khandelia. **Attended “Regional Young Investigators Meeting”, Hyderabad, August 18-19, 2018.**
24. Trinath J. Regional Young Investigators Meeting, Hyderabad, 18-19th August, 2018
25. Ruchi Jain Dey. Regional Young Investigators Meeting, Hyderabad, 18-19th August, 2018.
26. Naresh Patnaik and Ruchi Jain Dey. Attended 4<sup>th</sup> Biennial Conference of PAI and International Symposium on Probiotic Therapy: Translating to Health and Clinical Practice by Probiotic Association of India, Aiums, New Delhi. (Abstract as conference proceedings)
27. Naresh Patnaik and Ruchi Jain Dey. Role of microbiome in pre-term birth: a diagnostic and a therapeutic opportunity. Article published in Probiotic Association of India News letter, Volume 14, March 2018
28. Yamini Rakesh Nikhariya, Ruchi Jain Dey and Jayati Ray Dutta. Probiotics in neonatal sepsis. Article published in Probiotic Association of India News letter, Volume 14, March 2018
29. Alok Kumar, Ruchi Jain-Dey, Bappaditya Dey, Singh, Monali Praharaj and William Bishai. Poster entitled: BCG overexpressing c-di-AMP imparts enhanced protection against pulmonary tuberculosis and attenuates bacterial dissemination at Keystone symposia: Tuberculosis: Translating Scientific Findings for Clinical and Public Health Impact (X7) ([Poster presentation/Abstract published in conference proceedings](#))
30. Ruchi Jain Dey. Attended Winter Institute in Global Health – 2018, workshop organized jointly by BITS Pilani Hyderabad and PACE University, New York & Apollo Institute of Medical Sciences & Research
31. Ruchi Jain Dey. Participated in workshop, Participated, presented a talk and defended research proposal in workshop “Promoting Innovations in Individuals Start-ups and MSME” (PRISM) is the erstwhile “**Technopreneur Promotion Programme**” (TePP), organized by Department of Science and Technology, Govt. of India, DSIR Prism workshop. National/Department of Science and Technology, Govt. of India, DSIR Prism, Held in BITS Pilani Hyderabad; Jan 2018.
32. V. Sharma. **Attended and Organised “Regional Young Investigators Meeting”, Hyderabad, August 18-19, 2018**

#### Invited Talks given by BITS faculty:

1. Dr. Pragya Komal, Tumour necrosis factor- $\alpha$  alters the function of striatal synapses in YAC128 mouse **model of Huntington’s disease**, 15th Annual conference for Indian Academic of Neurosciences, BHU, October 29th-31st, 2018.
2. Dr. Sridev Mohapatra. Plant growth promoting rhizobacteria- the unseen, unsung, underground friends of plants. LSRIEAS, BITS-Pilani Pilani Campus, Rajasthan, November 2018.
3. Sankar Ganesh Palani, Toxicity Assessment of Engineered Titanium Dioxide Nanoparticles, *SETAC Europe 28th Annual Meeting, Rome, May, 2018*.
4. Kumar Pranav Narayan Food Safety Awareness Is Important for Healthy Life National Seminar on 'Food Safety, Quality and Policy' on 28th and 29th June 2018 in the Department of Microbiology, Government Degree College, Gajwel (Telangana)
5. P. Sankar Ganesh, Anaerobic co-digestion of landfill leachate and septage at mesophilic and thermophilic regimes, International Conference on Biotechnological research and Innovation for Sustainable Development (BioSD 2018), Hyderabad, November, 2018.
6. P. Sankar Ganesh, Role of Applied Research in Enabling Teaching and Learning Process, Faculty Development Programme for UG Teachers, Osmania University, Hyderabad, December, 2018.

7. P. Sankar Ganesh, Bioprocessing of Solid and Liquid Waste, Two Day Faculty Development Program on “**Modern Technologies on Solid and Sewage Waste**”, BVRIT, Hyderabad, December, 2018.
8. Ruchi Jain Dey Invited talk entitled; Multiple roads to destination TB vaccines: lessons learned on our journey of hopes & optimism, 59th International Symposium on Host-Pathogen Interactions, University of Hyderabad, Dec, 2018.

**Invited talks arranged in the department:**

1. Dr. Sejal Davla, Mcgill University, Montreal, Canada, 7th March 2018 arranged by Dr. Pragya Komal.
2. Marie Franquin, young scientist, Mcgill University, Montreal, Canada, 7th March 2018 arranged by Dr. Pragya Komal.
3. Dr N. Sadananda Singh, IISER, Thiruvananthapuram, India, 5th October 2018, invited by Dr Piyush Khandelia.
4. Dr. Sharmistha Banerjee, School of Life Sciences, University of Hyderabad on 6th March, 2018 by Dr. Trinath Jamma
5. Dr. Vinay Reddy M, The Scripps Research Institute, Jupiter, Florida on 27th April, 2018 by Dr. Trinath Jamma
6. Dr. Shashidhar Rao B, Department of Biochemistry, Osmania University on 24th August, 2018 by Dr. Trinath Jamma

**iii. Awards and recognitions won by faculty and students**

**Prof. Kumar Pranav Narayan** received “**Best Professor in Biological Sciences**” Dewang Mehta National Education Award (Regional Round), at Taj Banjara, Hyderabad on 16<sup>th</sup> November, 2018.

Prof. Kumar Pranav Narayan was invited as Chief Guest in National Seminar on 'Food Safety, Quality and Policy' on 28th and 29th June 2018 in the Department of Microbiology, Government Degree College, Gajwel

**Ruchi Jain Dey**

1. **US Patent** for a genetically engineered vaccine with a potential against tuberculosis and cancer. Title of the patent: **Bacteria over -expressing c -di-amp and therapeutic methods** ; 2018 Patent No. WO2016130616A1 (<https://patents.google.com/patent/WO2016130616A1/en#patentCitations>)
2. Ramalingaswami Fellowship, Awarded 2017; Sanctioned 2018.

**iv. Faculty Development, International Collaboration & Industry Immersion**

Prof. Kumar Pranav Narayan (BITS) had key role in developing potent platform technology to treat aggressive and relapsing cancers along with Dr. Rajkumar Banerjee (Principal Scientist, IICT, Hyderabad), which is licenced over to a USA based company called NanoDev Therapeutics LLC, USA on 9th Oct, 2018.

**v. Significant new equipments/experimental facility added during the year:**

**Ruchi Jain Dey** - Bacterial Electroporation system to create genetically engineered bacterial/fungal strains

**vi. Departmental association/club activities:**

**Pragya Komal**

1. Serving member of DCA 2018
2. Serving member of academic counselling cell (ACC)-BITS-Hyderabad 2018

**Jayati Ray Dutta**

1. Serving as member of DRC

**Gireesha T. Mohannath**

1. Synopsis. Under synopsis several activities have been initiated to benefit both the faculty members and the students of the department.

**Ruchi Jain Dey**

1. Serving as DCA member 2017 -till date

**vii. Major maintenance, renovations or new construction reports:**

**vii i. Major equipments acquired during the year:**

### B3.10.2 Chemical Engineering

Number of faculty members

Senior Professors, Professors	0
Associate Professors	5
Assistant Professors	6
Lecturers	1
Visiting Faculty	0

Head of the Department : Prof. Srikanta Dinda

Contact details: 040 - 66303-586;

E-mail: srikantadinda@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: 14

i. Sponsored Research activities:

(a) Ongoing projects

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Start date (Duration)
1	Biofuels from lignocellulosic biomass waste: Biosolubilization and biomethanation of lignin	Dr. Asma Ahmed	DST	27.2	July 2014 (3.5 years)
2	Studies on CO <sub>2</sub> Capture from Flue Gases using Regenerable Solid Adsorbents	Dr. Srikanta Dinda	CSIR	23.8	October 2015, (3 Years)

(b) Projects sanctioned during the year:

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Start date (Duration)
1	Composition of phenolic resin from two sources for their properties	Dr. Karthik C. V	ASL(DRDO)	9.792	April 2018, (1 Year)
2	Reactive transport modeling & simulation of CO <sub>2</sub> sequestration in deccan volcanic province	Dr. Vikranth K. Surasani	DST	21.736	April 2018, (3 Years)
3	Cracking of hydrocarbon fuel for a possible heat sink application	Dr. Srikanta Dinda	DRDO	~ 40.65	September 2018, (2 years)

ii. Journal Publications:

- A. Sailaja, B. Srinivas, I Sreedhar, "Electro-viscous effect of power law fluids in slit microchannel with asymmetric wall zeta potentials" Journal of Mechanics, Cambridge University Press, DOI: <https://doi.org/10.1017/jmech.2018.25>, (2018).
- I.Sreedhar, Krutarth M. Kamani, Banshi M Kamani, B. M. Reddy, A Venugopal, "A Bird's eye view on process and engineering aspects of hydrogen storage" Renewable and Sustainable Energy Reviews, 91, (2018), 838-860.
- B. Sreenivasulu, I Sreedhar, A. Satyapaul Singh, A Venugopal, "Calcination thermokinetics of carbon capture using coal fly ash stabilized sorbent", Energy & Fuels, 32 (3), (2018), 3716-3725.
- I.Sreedhar, Sneha Khaitan, Rajat Gupta, B.M Reddy. A. Venugopal, "A Odyssey of the Process and Engineering Trends in Forward Osmosis", Environmental Science: Water Research and Technology, 4, (2018), 129-168.

- e. P Suresh, I Sreedhar, V.K. Surasani, “**Investigations** at an Industrial Scale on Granule and Tablet Attributes in High Shear Rapid Mixer **Granulator**”, *Particulate Science & Technology*, 36 (4), (2018), 457-463.
  - f. B. Venu, B. Vishali, V. Vijay Kular, G. Naresh, I Sreedhar, A. Venugopal, “**An insight on the influence of surface Lewis acid sites for regioselective C H bond C3-cyanation of indole using NH4I and DMF as combined cyanide source over Cu/SBA-15 catalyst**”, *Journal of Molecular Catalysis*, 445, (2018), 43-51.
  - g. I Sreedhar, Sai Darshan, Shruti Srivastav, Vasundhara Jain, “**Complex** behavior of polymers as drag reducing agents through pipe **fittings**”, *Journal of Applied Fluid Mechanics*, 11 (2), (2018).
  - h. Premanath Murgea, Srikanta Dinda, Sounak Roy, Adsorbent from Rice Husk for CO<sub>2</sub> Capture: synthesis, characterization and optimization of parameters. *Energy & fuels*, 2018, 32, 10786–10795.
  - i. A Bhaskar Soman, Swapna Challagulla, Soumitra Payra, Srikanta Dinda, Sounak Roy, A probe on surface morphology and active sites of TiO<sub>2</sub> towards photo assisted catalysis, *Research on Chemical Intermediates*, 2018, 44, 2261-2272.
  - j. Appala Naidu U., Srikanta Dinda, Hydroxyl-Functionalized Resin: Preparation, Characterization, Parameter Optimization and Property Prediction, *Pigment & Resin Technology*, 2018, 47, 236-245.
  - k. Poornima K., Appala Naidu U., Srikanta Dinda Development of Resin Material from Cyclic–Ketones for Coating Applications, *Material Today: Proceedings*, 2018, 5, 16299-16304.
  - l. Effect of Compatibilizer on the Properties of Polyamide 6 Blend Based Carbon Fiber Reinforced **Composites**”, S. Aparna, D. Purnima, R. B. Adusumalli. *Fibers and Polymers*, 19(6), 1335-46, 2018.
  - m. Gitin Tom, Debashis Panda, V. K. Surasani, “**Lattice Boltzmann Simulations for Invasion Patterns during Drying of Capillary Porous Media**”, *Chemical Engineering Science*, Accepted, doi.org/10.1016/j.ces.2018.11.003.
  - n. Angan Sengupta, A. K. Gupta, I. M. Mishra and S. Suresh, “**One Dimensional Modeling of Jet Diffusion Flame**”, Accepted in *Journal of Applied Research and Technology*, 16, 320 – 333, (2018).
  - o. Palash Dhara, Nandini Bhandaru, Anuja Das and Rabibrata Mukherjee, Transition from Spin Dewetting to continuous film in spin coating of Liquid Crystal 5CB, *Scientific Reports*, 8, 7169, 2018 (Impact Factor: 4.259)
  - p. Meneka Banik, Nandini Bhandaru and Rabibrata Mukherjee, Transfer printing of colloidal crystals based on UV mediated degradation of a polymer thin film, *Chem. Commun.*, 54, 3484–3487, 2018 (Impact Factor: 6.319)
  - q. Xiangyu Liu, Nandini Bhandaru, Meneka Banik, Xiaoteng Wang, Abdullah M. Al-Enizi, Alamgir Karim, and Rabibrata Mukherjee, Capillary force lithography pattern-directed self-assembly (CFL-PDSA) of phase-separating polymer blend thin films, *ACS Omega*, 3, 2161–2168, 2018.
  - r. N. Veldurthi, N.K.R. Eswar, S.A. Singh, G. Madras, Cooperative effect between BaTiO<sub>3</sub> and CaFe<sub>2</sub>O<sub>4</sub> in a cocatalyst-free heterojunction composite for improved photochemical H<sub>2</sub> generation, *Int. J. Hydrogen Energy* 43 (2018) 22929-22941.
  - s. N. Veldurthi, N.K.R. Eswar, S.A. Singh, G. Madras, Heterojunction ZnWO<sub>4</sub>/ZnFe<sub>2</sub>O<sub>4</sub> composites with concerted effects and integrated properties for enhanced photocatalytic hydrogen evolution, *Catal. Sci. Technol.* 8 (2018) 1083-1093.
  - t. N.K.R. Eswar, S.A. Singh, G. Madras, Photoelectrocatalysis using high photoconductive copper oxide and validation by cyclic network model: A one step solution for synergistic degradation of antibiotic and bacteria, *Chem. Eng. J.* 332 (2018) 757–774.
  - u. N. Veldurthi, N.K.R. Eswar, S.A. Singh, G. Madras, Cocatalyst free Z-schematic enhanced H<sub>2</sub> evolution over LaVO<sub>4</sub>/BiVO<sub>4</sub> composite photocatalyst using Ag as an electron mediator, *Appl. Catal. B: Environ.* 220 (2018) 512 – 523.
- iii. **Book Chapter: None**
  - iv. **Patent published/issued: None**
  - v. **Conferences attended/papers presented:**



- a. P. Suresh, N. Saketharam Reddy, R. Hariharan, I. Sreedhar, "**Studies** on Fluid Bed Granulation of Lactose- MCC **Mixture**", International Conference on Advances in Materials and Manufacturing Applications (IconAMMA) Amrita University, 16-18<sup>th</sup> Aug (2018), Bengaluru, India.
- b. I.Sreedhar, N. Saketharam Reddy, Shaik Abdur Rahman, Koti Phaneendra Govada, Drag Reduction Studies in water using Polymers and their **combinations**" International Conference on Advances in Materials and Manufacturing Applications (IconAMMA) Amrita University, 16-18<sup>th</sup> Aug (2018), Bengaluru, India.
- c. A. Satyapaul Singh, Giridhar Madras, I. Sreedhar, Role of transition metals substitution in Co<sub>3</sub>O<sub>4</sub>-ZrO<sub>2</sub> composites in methane combustion, 11<sup>th</sup> International Conference on Advanced Nano Materials (ANM), University of Aveiro, Aveiro, 18-20<sup>th</sup> July (2018), Portugal.
- d. I.Sreedhar, A. Naga Divya Sree, Ch. Venkata Mayukha, P. Sneha Reddy, "**6th** International Conference Green, Growth, Globalization, Governance & GST (5G) Challenges and **Opportunities**", JKLU, 2-3<sup>rd</sup> Feb (2018), Jaipur, India
- e. "**Effect of enzyme treatment on Coir fibre**". B. Sai Chandu and D. Purnima. EEC-2018, BITS-Pilani, Hyderabad Campus, Hyderabad, 16th February, 2018.
- f. "**Study of Thermoplastic Blend as Matrix for Fiber Reinforced Composites**".
- g. S. Aparna, Anurag R. Patil, and D.Purnima. EEC-2018, BITS-Pilani, Hyderabad Campus, Hyderabad, 16th February, 2018.
- h. "**Carbon fiber reinforced thermoplastic composites for under water applications**". S. Aparna, D. Purnima and Ramesh Babu Adusumalli. ICCMA-2018, Hyderabad, 19th-20th January, 2018
- i. Githin Tom Zacchariah, Debashis Panda, V. K. Surasani, "**Lattice** Boltzmann Modeling and Simulation of Isothermal Drying of Capillary Porous **Media**", In the Proceedings of 21st International Drying Symposium-IDS 2018, València, Spain, 11-14 September 2018.
- j. Bithunshal U. B., Githin Tom Zacchariah, V. K. Surasani, Reactive Transport Modeling and Simulation of CO<sub>2</sub> Sequestration in Deccan Trap Basalt Formation, Interpore 2018, New Orleans, USA, 14-17 May, 2018.
- k. Satyapaul A. Singh, Giridhar Madras and Sreedhar Inkollu, "Role of transition metals substitution in Co<sub>3</sub>O<sub>4</sub> - ZrO<sub>2</sub> composites for methane combustion" at 11th International Conference on Advanced Nano Materials, ANM – 2018 (18 - 20 July, 2018), University of Aveiro, Aveiro, Portugal.
- vi. **Invited Talks given by BITS faculty:**
  - Invited Speaker at the 10th Indo-German Frontiers of Engineering Symposium, Potsdam, Germany during May 24-27, 2018, B. Nandini.
- vii. **Invited talks arranged in the department:**
  - a. Guest Lecture on '**Crude Oil and Natural Gas processing**' by Mr. R. V. Saradhi, Kuwait Oil Company.
  - b. Guest Lecture on 'Challenges & opportunities of Chemical engineers' by Prof. D. P. Rao.
- viii. **Awards and recognitions won by faculty and students: None**
- ix. **Faculty Development, International Collaborati on & Industry Immersion: None**
- x. **Significant new equipment/experimental facility added during the year: None**
- xi. **Departmental association/club activities:**
  - a. ASPEN Workshop
  - b. Invited talk, workshops, during ATMOS
  - c. Student Mentorship Programs to teach students MATLAB
- xii. **Major maintenance, renovations or new construction reports:**
  - Construction of CRE lab.
- xiii. **Major equipment acquired during the year: None**

**B3.10.3 Chemistry**

## Number of faculty members

Senior Professors, Professors	03
Associate Professors	09
Assistant Professors	04
Lecturers	-
Visiting Faculty	-

Head of the Department : Prof. Manab Chakravarty

Contact details: Email: manab@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: Full time: 21; Part-time: 12

## i. Sponsored Research activities:

## a) Ongoing projects

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
01	Efficacy of appropriately tailored biopolymer and carbonaceous adsorbents for the separation and recovery of Europium	N. Rajesh	DST SERB	29.59	3 years
02	Investigations on naphthalene and anthracene based phosphates/phosphates: important sources for alkene based new algeers and polyaryllalkanes	Manab Chakravarty	CSIR	16.2	3 years
03	Synthesis, study of optical properties and anticancer activity of unique di-substituted tetracyanoquinodimethanes	J. Subbalakshmi	DST-EMR	25.74	3 years
04	Photocatalytic reduction of CO <sub>2</sub> to biofuels	Sounak Roy	CSIR	4	3 years
05	CO <sub>2</sub> capture from flue gases using regenerable solid adsorbents	Srikanta Dinda; Sounak Roy (CO-PI)	CSIR	24.5	3 years
06	DST Inspire Fellowship	Chanchal Chakraborty	DST INSPIRE	35	5 years

## b) Projects sanctioned during the year

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
01	Women Scientist (Dr. Atasi Mukherjee Under Prof. Manab Chakravarty	Manab Chakravarty	WOS	31.55	3 years
02	Ultracold chemistry of molecular ions	SubhasGoshal	DST	24	3 years

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
03	Preparation and characterization of electrode material for Lithium ion Batteries	Sounak Roy	HBL Power Systems Limited.	7	1 year
04	Develop of novel anti-leishmanial analogues loaded with novel nano-formulations	K V G Chandra Sekhar (CO-PI)	DBT	13	2 years
05	DST Inspire Faculty award	Amit A. Vernekar	DST	35	5 years
06	Research Initiation Grant	Amit A. Vernekar	BITS	2	2 years

ii. **Publications:**

1. Fluorescence Resonance Energy Transfer, Small-Angle Neutron Scattering, and Dynamic Light Scattering Study on Interactions of Gemini Surfactants Having Different Spacer Groups ... **S Halder, S Kumari, S Kumar, VK Aswal, SK Saha, Acs Omega 3 (9), 11192-11204.**
2. Effect of Urea on Solvation Dynamics and Rotational Relaxation of Coumarin 480 in Aqueous Micelles of Cationic Gemini Surfactants with Different Spacer Groups. S Kumari, Sonu, S Halder, R Aggrawal, G Sundar, SK Saha. *ACS Omega 3 (3), 3079-3095.*
3. T.Sathvika, A.Soni, K.Sharma, M.Praneeth, M.Mudaliyar,V.Rajesh, N.Rajesh, Potential Application of *Saccharomyces cerevisiae* and *Rhizobium* Immobilized in Multi Walled Carbon Nanotubes to Adsorb Hexavalent Chromium, *Scientific reports-Nature 8 (2018) 9862.*
4. Talasila Sathvika, Manasi Mudaliyar , Vidya Rajesh , N. Rajesh; Leveraging the Potential of Endomycorrhizal Spores and Montmorillonite for Hexavalent Chromium Adsorption from Aqueous Phase, *Chemistry Select, 2018. 3 -2747."*
5. Manasi, V.Rajesh, N.Rajesh; Biosorption study of cadmium, lead and zinc ions onto halophilic bacteria and reduced graphene oxide, *J. Environ. Chem. Eng, 2018. 6 -5053.*
6. Manasi, A.Tibrewal, V.Rajesh, N.Rajesh; Identification and Characterization of the microbial communities found in electronic industrial effluent and their potential for bioremediation, *Ecotoxicology and Environmental safety, 2018. 164 - 379.*
7. Weak Donor-/Strong Acceptor-**Linked Anthracenyl  $\pi$ -Conjugates** as Solvato(fluoro)chromophore and AEEgens: Contrast between Nitro and Cyano Functionality, Moghal Zubair Khalid Baig,Banchhanidhi Prusti,Durba Roy, Prabhat Kumar Sahu, Moloy Sarkar, Ayushi Sharma, and Manab Chakravarty\* *ACS Omega, 2018, 3 (8), pp 9114–9125.*
8. Synthesis of 4-substituted pyrrolo [2,3-c]quinolines via microwave assisted C-N bond formation. T.R. Penjarla, M. Kandrapu, S. Baquer and Anupam Bhattacharya. *Chemistry Select, 2018, 3, 5386-5389.*
9. A novel microwave-assisted hydrothermal route for the synthesis of  $Zn_xTPA/y-Al_2O_3$  for conversion of carbohydrates into 5-hydroxymethylfurfural. G. Parameswaram, Sounak Roy, *RSC Advances, 8 (2018) 28461-28471.*
10. Adsorbent from rice husk for CO<sub>2</sub> capture: Synthesis, characterization and optimization of parameters, P. Murge, S. Dinda, Sounak Roy, *Energy & Fuels, 32 (2018) 10786–10795.*
11. The structural and surface modification of zeolitic imidazolate framework towards reduction of encapsulated CO<sub>2</sub>. S. Payra-, S. Challagulla, R. R. Indukuru, C. Chakraborty, K. Tarafder, B. Ghosh, Sounak Roy, *New Journal of Chemistry, 42 (2018) 19205 - 19213.*
12. Unveiling the dual role of chemically synthesized copper doped zinc oxide for compliance free resistive switching applications. B. P. K. Reddy, P. M. P. Raj, S. Challagulla, S. R. Gollu, Sounak Roy, S. Banerjee, S. Kundu, *Journal of Applied Physics, 124 (2018) 214901.*
13. Role of synthesis of upconversion nano particles towards surface modification and photocatalysis. S. Challagulla, S. Payra, M. Bajaj, Sounak Roy, *Bulletin of Materials Science, (2018) Accepted.*
14. Enhanced photo-induced electrocatalytic oxidation of methanol using Pt-nanoparticle decorated TiO<sub>2</sub>-polyaniline ternary nanofibers. S. Roy, S. Payra, S. Challagulla, R. Arora, Sounak Roy, C. Chakraborty, *ACS Omega, 3 (2018) 17778–17788.*

15. A probe on surface morphology and active sites of TiO<sub>2</sub> towards photo assisted catalysis. B. Soman, S. Challagulla, S. Payra, Srikanta Dinda, Sounak Roy, Research on Chemical Intermediates, DOI: 10.1007/s 11164-017-3227-6.
16. Oxygen insensitive thiol–ene photo-click chemistry for direct imprint lithography of oxides, Ravikiran Nagarjuna, Mohammad S. M. Saifullah and Ramakrishnan Ganesan, RSC Advances, 2018, 8, 11403–11411.
17. Towards single crystalline, highly monodisperse and catalytically active gold nanoparticles capped with probiotic *Lactobacillus plantarum* derived lipase, Imran Khan, Ravikiran Nagarjuna, Jayati Ray Dutta, Ramakrishnan Ganesan, Applied Nanoscience, 2018, <https://doi.org/10.1007/s13204-018-0735-7>.
18. In vitro hemocompatibility evaluation of gold nanoparticles capped with *Lactobacillus plantarum* derived lipase, Imran Khan, Sandeep K. Viswakarma, A. A. Khan, Ramakrishnan Ganesan and Jayati Ray Dutta, Clinical Hemorheology & Microcirculation, IOS Press 2018, 69, pp. 197–205.
19. Imran Khan, Nivetha Sivasankaran, Ravikiran Nagarjuna, R. Ganesan\* and Jayati Ray Dutta\* , Extracellular probiotic lipase capped silver nanoparticles as highly efficient broad spectrum antimicrobial agents. RSC Advances, 8, 2018, pp. 31358–65. (IF: 3.0).
20. Base-Promoted Synthesis of 2-Aryl Quinazolines from 2-Aminobenzylamines in Water; Tanmay Chatterjee, Dong In Kim, Eun Jin Cho\*; J. Org. Chem., 2018, 83, 7423 - 7430. (Impact factor = 4.805).
21. Drug–Polymer Co-Crystals of Dapsone and Polyethylene Glycol: An Emerging Subset in Pharmaceutical Co-Crystals, Praveen Chappa, Arthanareeswari, Maruthapillai, Rajasekhar Voguri, Archan Dey, Subhas Ghosal, and Mohamed Amjad Basha; Crystal Growth & Design, 2018, 18 (12), pp 7590–7598.
22. Nagesh, H.N., Srinivasarao, S., Suresh, A., Nizalapur, S., Murugesan, S., Kanneboina, K., Kumar, N., Chandra Sekhar, K.V.G. Sulfur-Assisted Deprotection of Methylene Nitrile Group: One-Pot Synthesis of 4-Substituted-2H-1,2,3-triazoles Chemistry Select, 2018, 3, 7565–7571.
23. Chander, S., Ashok, P., Reguera, r., Perez, M., Andres, R., Rafael, B., Chandra Sekhar, K.V.G., Murugesan, S. Synthesis and activity of benzopiperidine, benzopyridine and phenyl piperazine based compounds against *Leishmania infantum*. Experimental parasitology, 2018, 189, 49–60.
24. Srinivasarao, S., Nizalapur, S., Yu T T., Wenholz, D.S., Trivedi, P., Ghosh, B., Rangan, K., Kumar, N., Chandra Sekhar, K.V.G. Design, Synthesis and Biological Evaluation of Triazole-Containing 2-Phenylindole and Salicylic Acid as Quorum Sensing Inhibitors against *Pseudomonas aeruginosa* Chemistry Select, 2018, 3, 9170–9180.
25. Suresh N., Suresh A., Suresh Y., Manikapal, B., Mallika, A., Chandra Sekhar, K.V.G. Anti-proliferative activity, molecular modeling studies and interaction with calf thymus DNA of novel ciprofloxacin analogues. Journal of Chemical Sciences, 2018, 130, 121.
26. One-Pot Tandem Amidation, Knoevenagel Condensation, and Palladium-Catalyzed Wacker Type Oxidation/C–O Coupling: Synthesis of Chromeno-Annulated Imidazopyridines, Khima Pandey, Krishnan Rangan, and Anil Kumar, Journal of Organic Chemistry, 83, 8026–8035 (2018).
27. Crystal structure, DNA binding, cleavage, antioxidant and antibacterial studies of Cu(II), Ni(II) and Co(III) complexes with 2-((furan-2-yl)methylimino)methyl)-6-ethoxyphenol Schiff base, Kadatala Venkateswarlu, Marri Pradeep Kumar, Aveli Rambabu, Narendrula Vamsikrishna, Sreenu Daravath, Krishnan Rangan, Shivaraj, Journal of Molecular Structure, 1160, 198–207 (2018).
28. Nickel-Catalyzed Tandem Knoevenagel Condensation and Intramolecular Direct Arylation: Synthesis of Pyrazolo[5,1-a]-isoquinoline Derivatives, Shiv Dhiman, Nitesh Kumar Nandwana, Hitesh Kumar Saini, Dalip Kumar, Krishnan Rangan, Katherine N. Robertson, Mukund Jhad and Anil Kumar, Advanced Synthesis & Catalysis, 360, 1973–1983 (2018).
29. Crystal structure of a new molecular salt: 4-aminobenzenaminium 5-carboxypentanoate, Risha Mishra, Krishnan Rangan and Raghavaiah Pallegogu, Acta Cryst. E, 74, 201–205 (2018).
30. Damera, D. P., Venuganti, V.K. and Nag, A. "Deciphering the role of bilayer of a niosome towards controlling the entrapment and release of dyes" ChemistrySelect 2018, 3, 3930.
31. Peptide Sequence and Solvent as Levers to Control Disulfide Connectivity in Multiple Cysteine Containing Venom Toxins Karuna Anna Sajeevan and Durba Roy\* J. Phys. Chem. B, 2018, 122 (22), 5776–5789 DOI: 10.1021/acs.jpcc.8b01437.

32. Aqueous ionic liquids influence the disulfide bond isoform equilibrium in conotoxin AulB A consequence of Hofmeister effect? Karuna Anna Sajeevan and Durba Roy Biophysical Reviews, 2018, 10, 769-780 DOI: 10.1007/s12551-017-0391-2.

iii. **Conferences attended/papers presented:**

- ArunRaj B. T.Sathvika, V.Rajesh, N.Rajesh, Novel ion chromatographic method for determination of europium after its separation from other lanthanides, at 2nd International conference on Recent trends in analytical chemistry (ICORTAC 2018), Madras University, March 15-17,2018.
- T.Sathvika, V.Rajesh, N.Rajesh, Yeast immobilized in carbon nanotubes for the effective removal of Cr(VI), at Indian analytical Science Congress, M.G. University, Kottayam, Kerala, Feb 8-10,2018.
- ArunRaj B. T.Sathvika, V.Rajesh, N.Rajesh, Removal of europium from aq.solutions using sacchromyces cerevisiae immobilized in glutaraldehyde cross linked chitosan, at SESTEC 2018, DAE, BITS Pilani Goa campus May 23-26 2018.
- ArunRaj B. T.Sathvika, V.Rajesh, N.Rajesh, Quantitative determination of Europium by ion chromatography using lactic acid as eluent, at Indian analytical Science Congress, M.G. University, Kottayam, Kerala, Feb 8-10, 2018.
- Jagdeesh Kodali, N.Rajesh, Removal of herbicide 2,4-D using DEAE cellulose as adsorbent, at Indian analytical science congress, M.G. University, Kottayam, Kerala Feb 8-10, 2018.
- ArunRaj B, T.Sathvika, V.Rajesh, N.Rajesh, Adsorption of Europium from aqueous medium using microbe immobilized biopolymers- a comparative study, at Analytical sciences at NCCCM, Nov30-Dec1, 2018
- Sounak Roy, Paper Title: Structure & Dopant Sensitivity in deNO<sub>x</sub> Photocatalysis at 10th Singapore International Chemistry Conference 2018.

iv. **Invited Talks given by BITS faculty:**

- N. Rajesh, Importance of sustainable adsorbents for the sequestration of chromium from wastewater, at 4th International conference on water resource and environment, Kaoishung, Taiwan, July 17-21, 2018
- N. Rajesh, Tailored adsorbents as greener options for chromium speciation, at 2nd International conference on Recent trends in analytical chemistry (ICORTAC 2018), at Madras University, March 15-17, 2018
- N. Rajesh, Role of cellulose, clays polymeric resins in heavy metal remediation, at Indian analytical science congress, MG University, Kerala Feb 8-10,2018
- N. Rajesh, Sustainable materials for environmental applications, Refresher program in chemistry, at Ministry of Human Resources, IIT Dhanbad, June 13, 2018
- N. Rajesh, Application of biopolymers and GO based materials for environmental remediation, Analytical sciences at NCCCM, Nov 30-Dec 1,2018
- Amit A. Vernekar, Virus-based platforms for the delivery of platinum-based anticancer therapeutics, at Dnyanprassarak Mandal's College, Assagaon Goa on July 18, 2018
- Amit A. Vernekar, Chemical hygiene and safety, at Department of Chemistry, Goa University, Goa on July 27, 2018
- Amit A. Vernekar, Virus-based platforms for the delivery of platinum-based anticancer therapeutics, at Department of Chemistry, Goa University, Goa on July 27, 2018.

v. **Invited talks arranged in the department:**

- A talk on "Fluorescence of  $\alpha$ -Cyanostilbenes: Aggregates and Self-assemblies", by Dr. Sriram Kanvah Gundimeda, IIT Gandhinagar on 21st February, 2018.
- A talk on "Unraveling the Mechanistic Intricacies of Transition Metal Mediated H<sub>2</sub> formation, CO<sub>2</sub> reduction and C-H activation", by Dr. Lisa Roy, CSIR CMERI, Durgapur on 19th April, 2018.
- A talk on "Multitalented small molecules: Cellular Organelles targets, sensing and crystal engineering", by Dr. Shaikh M. Mobin, IIT Indore on 26th February 2018.
- A talk on "Designing of unnatural peptides and Application of Quantitative proteomics", by Dr. Bhaswati Chatterjee, NIPER-Hyderabad on 23rd August, 2018.

- A talk on "Synthesis and chemical proteomic studies of tag free photo-active probes", by Dr Raju Adepu on 27th August, 2018.
- A talk on "Crystal Engineering: Design and Synthesis of Multicomponent Crystals and their Applications", by Dr. Srinu Tothadi, NCL Pune on 11th September, 2018.
- A talk on "Progress in Organocatalytic Kinetic Resolution and Alkyne/Allene Chemistry", by Dr. Ramani Guru Brahmam, Department of Organic Chemistry, Stockholm University on 26th September 2018.
- Dr. Prasad P. Phadnis, Scientist, BARC visited Chemistry department and delivered a talk on 07th September, 2018.
- Dr. Amit Pawar, Faculty, IICT visited the Chemistry department and delivered a talk on 29th November, 2018.

vi. **Awards and recognitions won by faculty and students**

- N.Rajesh, Invited as expert faculty to assess the performance of analytical chemistry division at NCCCM, DAE, Hyderabad, March 22, 2018.
- J. Subbalakshmi selected as Distinguished Woman in Science by Venus International Foundation.
- Amit A. Vernekar, Outstanding and recognized reviewer citation by Spectrochimica acta part A: molecular and biomolecular spectroscopy, Elsevier publishers, Netherlands.
- Amit A. Vernekar, invited as a chief guest for the second chemistry news letter release, Dnyanprassarak Mandal's college, Assagaon Goa.
- Amit A. Vernekar, invited as a chief guest for the distribution of cheques to the needy and meritorious M.Sc. students, chemistry department faculty and alumni association, Goa University.
- Amit A. Vernekar, felicitated for the excellence in science research by Deepotsav committee, Sanquelim Goa.
- Amit A. Vernekar, invited to join the selection committee of the prestigious "Reaxys Ph.D. Prize" (international).

vii. **Faculty Development, International Collaboration & Industry Immersion – Nil-**

viii. **Significant new equipments/experimental facility added during the year:**

Few new equipments such as solvent purification system, current source and plasma cleaner are added to the department.

ix. **Departmental association/club activities:**

(A) **Tech Week events:**

1) Quantity Sufficient- 6th February 2018.

The first Alchemy event during Tech Week was Quantity Sufficient, an event based on simple chemical reactions and stoichiometry.

2) Chetone- 9th February 2018.

This was our second event in Tech Week. It was an extremely fun-filled event with a chemistry quiz whose answers were colour-coded and the participants had to fill in the colours in pictures once they completed the quiz.

(B) **Industrial Visits:**

VIMTA labs visit- 31st March 2018

Organised by the Chemistry Department on 31st March, 2018, the trip to Vimta labs was both informative and memorable as students and faculty entered the world of Analytical Chemistry and Biotechnology. Many valuable insights on the use of High Performance Liquid Chromatography, Mass Spectroscopy, X Ray Diffraction, Fourier Transform Infrared Spectroscopy, etc were discussed and shown in the labs for food, drugs and metals testing. The high class equipment along with the intensive work atmosphere was very inspirational.

(C) **ATMoS events:**

- 1) Snitch in Time: A new event was introduced for the techno-management festival by the association this time. This was an event based on the backdrop story of the all time famous Harry Potter series

and had a prize money of 15k. The first round of the event was a simple quiz based on general chemistry questions and the second round was a hands-on lab-based round. It was a successful event which saw participation from over 60 teams.

- 2) Paper Presentation: Alchemy organised Paper Presentation for students to showcase their research work in front of experienced faculty members and chief guests, so as to give them a chance to not only present, but also to receive valuable feedback on their work.

#### (D) Pre-ATMoS Events:

1. Pictionary (19<sup>th</sup> September 2018): Alchemy kick-started its pre-ATMoS events with Pictionary. This game was inspired from the parent game that goes by the same name with just a little twist - this one had questions of increasing difficulty levels. Participants could come in teams of at most 3 people. Overall, the event witnessed a great turnout and had prize money worth 1.3k.
2. Chembola (24<sup>th</sup> September 2018): This was the second event lined up for all the chemistry fans out there by Alchemy. This was our version of the beloved game Tambola/Housie. This event too, like the previous event, witnessed a huge turnout and the prize money was 1.4k.

#### (E) Social Events:

We organized several social events with the start of the new academic year to welcome new members into the Chemistry family.

- 1) 2014 Batch Farewell: The Farewell for the 2014 batch was organized on 26th April, 2018. There were fun games, informal prizes and the award ceremony for Alchemy post-holders during the event. The faculty showed up too and everyone had a memorable time. The event was followed by dinner. Mementos were given to the seniors and a T-shirt scribbling event was organized.
- 2) Orientation for 2017 chemistry students: 9th August, 2018.

As the 2017 students entered the second year and were ready to begin their journey with the department, we organized an interactive session where they could get to know more about the professors, the courses and the ongoing work in the department. It was a light-hearted, informative session and the students enjoyed it thoroughly.

- 3) Freshmen orientation for 2018 chemistry students: 28th August, 2018.

This event was held as a welcome party for the batch of 2018-2023. The purpose of this event was that **every "fresher" feels like an integral part of the BITS family** and gets ready to take on the challenges of the year ahead. The event was diligently organized.

#### (F) Editorials:

- 1) Chemazines: 5 chemazines were released in the first semester of the year and 4 in the second semester. Some very interesting facts such as the numbers at the bottom of plastic bottles and chemistry of perfumes were explored.
- 2) LOP Series: To provide an insight into projects offered by the department and how our seniors have worked under the guidance of our experienced professors, the LOP experiences of 3 seniors were released.
- 3) Teacher's Interviews: This is a new initiative started by Alchemy to provide detailed information about the area of work as well as projects and opportunities to work under the professors of the Chemistry department. **We published our first teacher's interview by Professor Ramakrishnan G.** explaining his work on photoresists, surface endothelialization and nanoparticle lithography.
- 4) Elixir: We also released our semesterly magazine, Elixir on 28th December, 2018. It had a bunch of mind-blowing articles, fun-filled **games and significant information about this year's nobel prize winners in chemistry.**

#### x. Major maintenance, renovations or new construction reports:

The space (~3700 sqft) have been allotted to build new laboratories for the undergrad and Ph.D. students

#### xi. Major equipments acquired during the year:

We have acquired solvent purification system, current source and plasma cleaner from the departmental equipment budget.

### B3.10.4 Civil Engineering

#### Number of faculty members

Senior Professors, Professors	3
Associate Professors	3
Assistant Professors	9
Lecturers	0
Visiting Faculty	1

Head of the Department: Prof. Sridhar Raju

Contact details: 040-66303682 Email: sridhar.raju@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: 24

#### i. Sponsored Research activities:

##### (a) Ongoing projects

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Performance Evaluation of backfill soils partially replaced with building derived materials	Dr. Anasua Guharay (PI) and Dr. Arkamitra Kar (Co-PI) from BITS Pilani-Hyderabad Campus, Dr. Naveen James (Co-PI) from IIT Ropar	DST SERB Early Career Research Grant (Grant No. ECR/2016/000522)	INR 24.43 Lakhs	3 Years (September 2016-September 2019)
2	Multiobjective Evolutionary Approach for Solving Water Distribution Network Design Optimization	Prof. A. Vasani (PI) & Dr. Murari R. R. Varma (Co-PI).	Council of Scientific and Industrial Research (CSIR), New Delhi, India. (Grant No. 22(0723)/17/EMR-II dated 16.05.2017	INR 18.46 Lakhs	May 2017- April 2020
3	Improving the seismic performance of dynamically similar buildings using damper connected control technique	Dr. S. C. Mohan	DST	INR 43.2 Lakhs	July 2017 - July 2020
4	Coastal wetland Characterization using L and S bands of Polarimetric SAR data	Dr Rajitha K	ISRO-SAC	INR 13.58 Lakhs	Dec-2017- Dec-2020
5	State of the art on the utilization of higher percentage of reclaimed asphalt pavement (rap) in hot asphalt mixes (ham) with warm mix additives - laboratory and field evaluation	Prof. Sridhar Raju (PI), Prof. V. Vinayaka Ram (Co-PI)	MoRTH	INR 6.255 Lakhs	Aug 2017- Mar 2018
6	Preparation of State of the Art Report (SOAR) on Effect of Temperature Stresses in Concrete Pavement.	Prof. V. Vinayaka Ram (PI), Prof. Sridhar Raju (Co-PI)	MoRTH	INR 6.44 Lakhs	Aug 2017- Mar 2018
7	Preparation of State of Art Report (SOAR) on Use of Polymer Fibers and Steel Fibers for improvement in concrete properties"	Prof. P N Rao	MoRTH	INR 6.587 Lakhs	Aug 2017- Mar 2018

##### (b) Projects sanctioned during the year

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Implementation of plants and treated natural fibers to enhance the strength properties of soft soil and to decrease the rate of surface erosion (Nat-Treat)	Dr. Anusua, Dr. Wei Wu (Universität für Bodenkultur BOKU), Co-PI: Dr. Arkamitra Kar, Austrian, Dr. M. Acharya (BOKU)			2018-2020



S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
2	Economic Construction Practice Using Bacterial Inclusions in Concrete to Improve its Durability	Dr. Arkamitra Kar, Co-PI: J. Ray Dutta, M. Bandopadhyay (Univ. of Pittsburgh)	Council of Scientific and Industrial Research (CSIR), New Delhi, India.	INR 17 Lakhs	Sep 2018-Sep 2021
3	Pre-feasibility study of Battery Electric buses in India	B. Potogloe (Cardiff University), Co PI: B. B. Majumdar, A.K. Sarkar, P. Sahu	Global Challenge Research Fund, UK	INR 12.83 Lakhs	May 2018-May 2021

ii. **Publications:**

1. **K Shruti, Sreeram Rajesh, Sabareesh GR and PN Rao,** "Study of Interference Effects on Chimneys", International Conference on Recent Advances in Fluid and Thermal Sciences 2018, December 5-7, 2018, Dubai, U.A.E. (to be published in Scopus index journal)
2. **Padmavathi, V., Nirmala Peter, E. C., Rao, P. N. & Padmavathi, M. (2018),** "Stabilization of Soil Using Terrasil, Zycobond and Cement as Admixtures", **Proceedings of the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt, Latest Thoughts on Ground Improvement Techniques**, pp. 163-170. [https://doi.org/10.1007/978-3-030-01917-4\\_13](https://doi.org/10.1007/978-3-030-01917-4_13)
3. **Shruti, K., Rao, P. N. & Sabareesh, G. R. (2018),** "Across Wind Load Analysis Using CFD for Sustainable Design of Tall Structures", **Proceedings of the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt, Advances and Challenges in Structural Engineering**, pp. 230-243.   
<https://doi.org/10.1007/978-3-030-01932-7>
4. **Swathi V, K.Srinivasa Raju, Sai Veena S, Santosh Kumar A (2018)** Urban Floods in Hyderabad, India under Present and Future Rainfall Scenarios-A Case Study, **Natural Hazards, Springer**, DOI :10.1007/s11069-018-3511-9, Article in Journal Homepage.
5. **K.Srinivasa Raju, D.Nagesh Kumar and Anmol J (2018)** Prioritization of Sub-catchments of a River Basin using DEM and Fuzzy VIKOR, **H2 pen Journal, IWA Publishing, UK, Vol. 1, No.1, pp. 1-11, DOI: 10.2166/h2oj.2017.001**, Article in Journal Home Page.
6. **Venkateswara Rao Parameshwaran Energy and BuildingsVolume 158 V, Venkateswara Rao Parameshwaran Energy and BuildingsVolume 158 R, Vinayaka Ram (2018),** "PCM-mortar based construction materials for energy efficient buildings: A review on research trends", **Venkateswara RaoParameshwaranEnergy and BuildingsVolume 158, Elsevier, Venkateswara RaoParameshwaranEnergy and BuildingsVolume 158, 1 January 2018, Pages 95-122**  
Weblink: <http://www.sciencedirect.com/science/article/pii/S0378778817309416> 5 year Impact Factor: 4.599, H Index: 123.
7. **S Gireesh Kumar, J Satya, Kratagya Mittal, Sridhar Raju (2018)** "Design of a bituminous mixture for perpetual pavement" (accepted for publication in **IOP Sciences Journal**)
8. **Sai Kubair K., Shreyans R Surana, and Sridhar Raju,** "Characterization of Gap GradedAsphalt Mixture with High Rubber Content," **83 rd Transportation Research Board Annual Meeting 2018, Transportation Research Board (TRB), Washington, D.C., 07-11 Jan 2018.**
9. **K. Sai Kuber and S.C. Mohan,** Numerical Model Updating Technique for Structures Using Firefly Algorithm, **IOP Conf. Series: Materials Science and Engineering, Vol 330, 012123, 2018**
10. **A Naringe, S. C. Mohan and S. Agarwal,** Structural Health Monitoring using Feature Extraction from Dynamic Response of the Structure, **Journal of Physics: Conference Series, (accepted), IOP Publishing, 2018.**
11. **Jayatheja. M., Anasua GuhaRay, Ashok K. Suluguru, Anurag Anand, Arkamitra Kar (2018),** "Performance of Cohesionless Soil partially replaced with Building Derived Materials as a Foundation Material under static loading conditions", **International Journal of Geotechnical Engineering, Taylor and Francis, 1-10. 10.1080/19386362.2018.1543791.**
12. **Suluguru, A.K., Jayatheja, M., GuhaRay, A., Kar, A. and Anand A. (2018),** "Characterisation of Building Derived Materials for partial replacement of pavement subgrade layer", **Innovative Infrastructure Solutions, Springer, 3:78, https://doi.org/10.1007/s41062-018-0183-y.**

- 13 Suluguru, A.K., Surana, S.R., GuhaRay, A., Kar, A. and Jayatheja, M. (2018), "Experimental Investigations on Building Derived Materials in Chemically Aggressive Environment as a Partial Replacement of Soil in Geotechnical Applications", **Geotechnical and Geological Engineering, An International Journal** (ISSN: 0960 -3182), Springer, Netherlands, <https://doi.org/10.1007/s10706-018-0662-0>.
  - 14 Mazhar, S., GuhaRay, A., Kar, A., Avinash, G.S.S. and Sirupa R. (2018), "Stabilization Of Expansive Black Cotton Soils With Alkali Activated Binders", Proceedings of China-Europe Conference on Geotechnical Engineering, SSGG, pp. 1-4, [https://doi.org/10.1007/978-3-319-97112-4\\_185](https://doi.org/10.1007/978-3-319-97112-4_185).
  - 15 Gupta, S., GuhaRay, A., Kar, A. and Komaravolu V.P. (2018), "Effect Of Strain Rate On Interface Friction Angle Between Sand And Alkali Activated Binder Treated Jute", Proceedings of China-Europe Conference on Geotechnical Engineering, SSGG, pp. 1-4, [https://doi.org/10.1007/978-3-319-97112-4\\_179](https://doi.org/10.1007/978-3-319-97112-4_179).
  - 16 Shashank Gupta, Anasua GuhaRay, Arkamitra Kar & V. P. Komaravolu (2018) "Performance of alkali-activated binder-treated jute geotextile as reinforcement for subgrade stabilization", *International Journal of Geotechnical Engineering*, Taylor and Francis, DOI: 10.1080/19386362.2018.1464272
  - 17 GuhaRay, A., Biswas, A., Chauhan, D. (2018), "Reliability Analysis of Foundation Systems Supported on Clay Subgrades of Different Strengths: A Finite Element Approach", **International Foundations Congress and Equipment Exposition (IFCEE 2018)**, Orlando, Florida, USA, March 2018, ASCE Geotechnical Special Publication GSP 295, pg. 248-257.
  - 18 Jayatheja, M., Suluguru, A. K., GuhaRay, A., Kar, A. (2018), "Utilization of Building Derived Material for improving performance of Sand as a Foundation Material", **International Foundations Congress and Equipment Exposition (IFCEE 2018)**, Orlando, Florida, USA, March 2018, ASCE Geotechnical Special Publication GSP 296, pg. 484-494.
  - 19 Athira. G, Bahurudeen. A, Appari.S, Praksh. N (2018), A Circular Framework for the Valorisation of Sugar Industry Wastes: Elsevier Journal of Cleaner Production (Impact factor: 6.352), SCI Indexed, Elsevier, Vol 203, pp 89-108, 24/08/2018.
  - 20 Majumdar, B.B., and Mitra, S. (2018). Development of Level of Service (LOS) criteria for evaluation of Bicycle Suitability: A case study of Kharagpur, India. *Journal of Urban Planning and Development*. American Society of Civil Engineering. (accepted, in press) (DOI: 10.1061/(ASCE)UP.1943-5444.0000432)
  - 21 Majumdar, B.B., and Mitra, S. (2018). Analysis of bicycle route-related improvement strategies for two Indian cities using a Stated Preference Survey. *Transport Policy* 63, pp. 176-188.
  - 22 Majumdar, B.B., and Mitra, S. (2018). A study on route choice preferences for commuter and non-commuter bicyclists: A case study of Kharagpur and Asansol, India. *Transportation* (accepted in press)
  - 23 **Majumdar, B.B's.**, SteamIndia Reports (2018). *Bicycling on Roadways: Safety and Level of Service"*
  - 24 Patil, R., Naringe, A., & Kalyana Rama, J. S. (2018, March). "Novel Techniques for Seismic Performance of High Rise Structures in 21st Century: State-Of-The Art Review". In *IOP Conference Series: Materials Science and Engineering* (Vol. 330, No. 1, p. 012126). IOP Publishing.
  - 25 Ritesh Reddy, Kalyana Rama J S, Chandu Parimi " Behavior of Plain and Reinforced Concrete slabs subjected to Impact Loading-A Numerical Approach", *IOP Conference Series: Materials Science and Engineering*, (Accepted)
  - 26 Chauhan, D. R., Tewani, H. R., & Kalyana Rama, J. S. (2018). *Application of Principles of Linear Elastic Fracture Mechanics for Concrete Structures: A Numerical Study*. Applied Mechanics and Materials (Vol. 877, pp. 282-288). Trans Tech Publications
- iii. **Conferences attended/papers presented:**
- 1 K.Srinivasa Raju, A.Vasan, D.V.Morankar, Evaluation of Irrigation Planning Strategies using PROMETHEE-2 and Multicriterion Q-Analysis, *Research Frontiers in Precision Agriculture, AFITA/WCCA 2018 Conference on Research Frontiers in Precision Agriculture*, October 24-26, 2018 , Mumbai, India, 77-79.
  - 2 Sowmith Reddy Ch R, K.Srinivasa Raju, A.Vasan, Discharge Forecasting of a Watershed using Wavelet Neural Networks, *Global Water Security Conference for Agriculture and Natural Resources, An ASABE Global Initiative Conference*, October 3-6, 2018, Hyderabad, India, pp.17-18.

- 3 R.Madhuri, K.Srinivasa Raju, Murari R R Varma, Best Management Practices in an Urban Flooding Scenario, National Symposium on Emerging Environmental Challenges: An Engineering Approach (EEC 2018), February 16, 2018, Hyderabad, India, pp. 101.
- 4 Sriman Pankaj B, K.Srinivasa Raju, Evaluation of Rainfall-Runoff Model Structures in R Platform: Case Study, National Symposium on Emerging Environmental Challenges: An Engineering Approach (EEC 2018), February 16, 2018, Hyderabad, India, pp. 36
- 5 K.Srinivasa Raju, A.Vasan, J.Madhulika, P.Sai Hemantha Chowdary, Fuzzy Cognitive Mapping (FCM) Application to Climate Change and Water Resources Engineering, SWAT 2018 International Workshop and Conference, January 10-12, 2018, Chennai, India, pp. 33.
- 6 B Kaushik, P Jayasheel Varma, A Vasana, **"Building Information Modeling for Sustainable Building Design"**, 2<sup>nd</sup> International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE 2018), BITS Pilani, Pilani Campus, February 26-28, 2018. (Accepted).
- 7 M Naveen Naidu, A Vasana, Murari RR Varma, **"Water Distribution Network Optimization – A Review"**, 50<sup>th</sup> IWWA Annual Convention 2018, Kala Academy, Panaji, Goa, February 19-21, 2018. (Accepted)
- 8 P Praneeth, A Vasana, K Srinivasa Raju, **"Pipe Size Design Optimization of Water Distribution Networks Using Water Cycle Algorithm"**, 4th International Conference on Harmony search, Soft Computing and Applications (ICHSA 2018), BML Munjal University, Gurgaon, India, Feb 07-09, 2018. (Accepted).
- 9 K.Srinivasa Raju, A.Vasan, J.Madhulika, P.Sai Hemantha Chowdary, **"Fuzzy Cognitive Mapping (FCM) Application to Climate Change and Water Resources Engineering"**, SWAT 2018 International Workshop and Conference, Indian Institute of Technology, Madras, Chennai, January 8-12, 2018. (Accepted)
- 10 V Venkataramayya, V Vinayaka Ram, S Krishnayya (2018), An integrated tool for aggregate blending for bituminous concrete layer using C# programming, National Conference on innovations in Civil Engineering through sustainable technologies (NICEST '18), Organised by MGIT, Hyderabad.
- 11 Prakash Mohan M M, Murari Raja Raja Varma and Rajitha Kanjirapuzha, Vamsi Nori, and Prudhvi Gunuputi. **"A novel approach to estimate soil moisture content by using inputs from Surface Energy Balance Model (SEBAL)."** SPIE Remote Sensing for Agriculture, Ecosystems, and Hydrology 2018 Berlin, 10 - 13 September 2018 (Accepted).
- 12 Prakash Mohan M M, Rajitha Kanjirapuzha, and Murari Raja Raja Varma. A novel approach to select anchor pixels in SEBAL model by using inputs from SAR images International Geoscience and Remote Sensing Symposium 2018 (IGARSS 2018). Valencia, Spain, 22-27 July 2018.
- 13 M Naveen Naidu, A Vasana and Murari R R Varma, (2018) Water Distribution Network Optimization – A Review, 50<sup>th</sup> IWWA Annual Convention 2018, Kala Academy, Panaji, Goa, February 19-21, 2018.
- 14 R.Madhuri, K.Srinivasa Raju, Murari R R Varma, (2018) Best Management Practices in an Urban Flooding Scenario, National Symposium on Emerging Environmental Challenges: An Engineering Approach (EEC 2018), February 16, 2018, Hyderabad, India, pp. 101
- 15 Dr Chandu Parimi presented at the International Conference on Structural Nonlinear Dynamics and Diagnosis (CSNDD 2018), Stick-Slip Phenomenon of Sliding Secondary Components and its Effect on the Horizontal Seismic Behavior of Single-Story Light Structures, Tangier, Morocco, June 25-27 2018.
- 16 Rutting Potential of Gap Graded Warm Mix Asphalt with Higher Percentage of Crumb Rubber
- 17 K. Sai Kubair; Shreyans R. Surana ; M. Venkata Sai Krishna ; Sridhar Raju , Ph.D. ; and V.Vinayaka Ram , Ph.D. Urbanization Challenges in Emerging Economies: Resilience and Sustainability of Infrastructure. 2018.
- 18 Rutting Potential of Half Warm Asphalt Mixture Using Polymer Modified Bitumen Emulsion Katla Bhanuprasad; Prateek Agarwal ; Sridhar Raju , Ph.D. ; and V. Vinayaka Ram , Ph.D. Urbanization Challenges in Emerging Economies: Resilience and Sustainability of Infrastructure. 2018.
- 19 A. Rajasugantha,, S. C. Mohan , U. Ramakrishna, Optimal Damper Connected Control Technique for Similar Buildings subjected to earthquake, 16th International Conference on Earthquake Engineering (16ECEE), June 18 - 21, 2018, Thessaloniki, Greece
- 20 Komaravolu, V.P., GuhaRay, A., Kar, A. and Tulluri S.K. (2018), "Subgrade Stabilisation using Alkali Activated binder treated Jute Geotextile", Indian Geotechnical Conference IGC 2018, IISc Bangalore, December 2018.
- 21 GuhaRay, A. and Zaid Md. (2018), "Assessment of Soil Liquefaction Resistance by Finite Element Approach", Indian Geotechnical Conference IGC 2018, IISc Bangalore, December 2018.

- 22 Mazhar, S., GuhaRay, A., Avinash, G.S.S. and Kar, A. (2018), "Geopolymerization Of Expansive Black Cotton Soils With Alkali Activated Binders", Indian Geotechnical Conference IGC 2018, IISc Bangalore, December 2018.
- 23 Jayatheja, M., GuhaRay, A. and Kar, A. (2018), "Effect of Strain Rate on Shear Strength of Red Soil partially replaced with Building Derived Materials", Indian Geotechnical Conference IGC 2018, IISc Bangalore, December 2018.
- 24 GuhaRay, A. and Roy, A. (2018), "Reliability Analysis of Stone Column improved Soft Soil by Finite Element Approach", GeoMEast International Congress, Sustainable Civil Infrastructures: Structural Integrity 2018, Cairo, Egypt, 24-28th November, 2018, published as a book chapter in "Latest Thoughts in Ground Improvement Techniques" (Springer), pg. 39-50, [http://dx.doi.org/10.1007/978-3-030-01917-4\\_3](http://dx.doi.org/10.1007/978-3-030-01917-4_3).
- 25 Mazhar, S., GuhaRay, A., Avinash, G.S.S., Sirupa R. and Kar, A. (2018), "Geopolymerization Of Expansive Black Cotton Soils With Alkali Activated Binders", Conference on Geotechnics for Infrastructure Development, Kolkata, India, 27-28th July 2018.
- 26 Dr Anasua Guharay, Reliability Analysis of Foundation Systems Supported on Clay Subgrades of Different Strengths: A Finite Element Approach, International Foundations Congress Equipment Expo (IFCEE 2018), US, Orlando, March, 2018.
- 27 S. Gupta, A. Guharay, A. Kar, V.P. Komaravolu, 2018, "Effect of strain rate on interface friction angle between sand and alkali activated binder treated jute.", China – Europe Conference on Geotechnical Engineering, August 2018.
- 28 S. Ashok Kumar, A. Kar, A. GuhaRay, and N. James, 2018, "Experimental Studies On Physical Properties and Strength Response Of Construction and Demolition Wastes", Recent Advances in Structural Engineering, (SPRINGER), Vol. 1, Accepted as Book Chapter
- 29 Tewani, H.R., Kar, A., Ghosh, S., 2018, "Web-based Application to Predict Shrinkage for Concrete Containing Portland-Composite Cements", 2nd International Conference on Advances in Concrete, Structural, and Geotechnical Engineering (ACSGE 2018), BITS Pilani, Pilani Campus, Feb 26 - 28, 2018. Accepted as Book Chapter (Bloomsbury Publishing).
- 30 Chauhan, D. R., Ramagiri, K. K., Gupta, S., and Kar, A., 2018, "Evaluation of The Behavior of Reinforced Concrete with Alkali Activated Binders Exposed to Severely High Temperatures", 5th International fib Congress 2018, Oct 7 - 11, Melbourne, Australia. Accepted.
- 31 Tewani, H.R., Kar, A., Ghosh, S., 2018, "Web-based Application to Predict Shrinkage for Concrete Containing Portland-Composite Cements", 2nd International Conference on Advances in Concrete, Structural, and Geotechnical Engineering (ACSGE 2018), BITS Pilani, Pilani Campus, Feb 26 - 28, 2018.
- 32 Athira, G., Bahurudeen, A., Kumar, A.: Effective Utilization of waste Ash for Sustainable Cement Production in India. In: Recycle. IIT Guwahati, Guwahati (2018)
- 33 Nidhi S, Shankar Ram K, Kalyana Rama J S, "Application of Concrete Damage Plasticity model in strengthening the beam and column using UHPC and FRP-Numerical Study", Structural Engineering Convention-2018 (Accepted).
- 34 Aakash Reddy, Kalyana Rama J S, "Strengthening of shear deficient RC beams with CFRP and UHPC strips using damage plasticity model-A Numerical Study", Structural Engineering Convention-2018 (Accepted).
- 35 Sriman Pankaj Boindala, Kalyana Rama J S, "Identifying appropriate damage parameters of Concrete Damage Plasticity Model for the analysis of Shear Wall", Structural Engineering Convention-2018(Accepted).
- 36 Saurabh J Patil, Himanshu Pal, Kalyana Rama J S, "Properties of Self-Compacting concrete with Alccofine, GGBS and Fly Ash-Plastic Viscosity Approach", UKIERI Concrete Congress (Accepted).
- 37 Life Cycle Assessment of Buildings with Supplementary Materials Shreyans R. Surana; J. S. Kalyana Rama; and Sridhar Raju, Ph.D. Urbanization Challenges in Emerging Economies: Resilience and Sustainability of Infrastructure. 2018
- 38 Kalyana Rama J S, Sivakumar M V N., Sai Kubair K., Vasana A., Ramachandra Murthy, "Influence of plastic viscosity of the mix on properties of SCC with river and crushed sand", Computers and Concrete.

## iv. Invited Talks given by BITS faculty:

## Prof. P N Rao has:

- Key note address on “A case study on Fire Damage Assessment of an Industrial shed”, 2<sup>nd</sup> International Conference on Paradigms in Engineering and Technology (ICPET-2018), December 28<sup>th</sup> and 29<sup>th</sup>, 2018, Methodist College of Engineering and Technology, Hyderabad.
- “Emerging Areas in Civil Engineering”, 1<sup>st</sup> International Conference on Civil Engineering PRACTICES and Trends (I-CONCEPTS 2018), December 21<sup>st</sup> and 22<sup>nd</sup>, 2018, CMR College of Engineering & Technology, Hyderabad, as a Guest of honor.
- Key note address on “Performance of concrete by incorporating Nano-Sized Particles”, 1<sup>st</sup> International Conference on Civil Engineering PRACTICES and Trends (I-CONCEPTS 2018), December 21<sup>st</sup> and 22<sup>nd</sup>, 2018, CMR College of Engineering & Technology, Hyderabad.
- Key note address on “Performance and Impact of Nano Concrete”, National Workshop on Special Concretes, 30<sup>th</sup> October, 2018, JNTUCE, Hyderabad.

## Prof. Komaragiri Srinivasa Raju has:

- Digital Transformation: A New Industrial Revolution, Gudlavalleru Engineering College, Gudlavalleru, Andhra Pradesh on the Occasion of Engineers Day, September 15, 2018
- Optimization of Water Resources, Aurora's Technological Research Institute (ATRI), Hyderabad, August 13, 2018.
- Urban Flood Modelling of Hyderabad City, Workshop on Urban Flooding, Organised by Telangana State Development Planning Society, Hyderabad, July 13, 2018
- Classical Optimization Techniques and Impact of Climate Change on Reservoir Operation, Five day Training Workshop on Reservoir Simulation Using NIH\_ResYP Jointly Organised by National Institute of Hydrology (A Government of India Society under Ministry of Water Resources, River Development and Ganga Rejuvenation) and Centre of Excellence in Water Resources Management, Department of Civil Engineering, BITS Pilani Hyderabad Campus, June 25-29, 2018, Guest lectures delivered on June 26, 2018
- Impact of Climate Change on Water Resources, World Environment Day: Conclave 2018, Organised by New Indian Express, held at Pragati Resorts, Hyderabad June 5,
- Multiobjective Optimization and Data Mining & Multiple Criteria Decision Making (Two Lectures), One Week Short Term Training Program on Optimization in Engineering-2018, Visvesvaraya National Institute of Technology, Nagpur, May 17, 2018
- Classical Optimization Techniques, Workshop on Data Mining and Soft Computing Techniques in Civil Engineering, Birla Institute of Technology and Science- Pilani, Hyderabad Campus, April 13, 2018.
- National Advisory Committee, Two-Day National Conference on Advanced Computing Applications in Civil Engineering (ACACE-2018) in Osmania University College of Engineering, Hyderabad on April 20-21, 2018
- Scientific and Advisory Committee, 5<sup>th</sup> National Conference on Water, Environment & Society (NCWES-2018), Centre for Water Resources, Institute of Science and Technology in Jawaharlal Nehru Technological University, Hyderabad on June 4-6, 2018
- Optimization Applications in Water Resources Engineering, MVSR Engineering College, Hyderabad, April 4, 2018.
- Artificial Neural Networks: Challenges and Opportunities, National Conference on Innovative Trends in Civil Engineering (NC-ITCE-2K18), Anurag Group of Institutions, Hyderabad, March 28, 2018.
- Urban Flood Modelling Perspectives: Case Study of Hyderabad, Continuing Professional Development Program on Climate Change Impact - Urban Heat Islands & Flash Flooding, Engineering Staff College of India, Hyderabad, March 20, 2018.
- Water Resources Economic Planning and Management (3 lectures on Water Resources Economics, Water Resources Optimization, Uncertainty Handling in Water Resources), SGGS Institute of Engineering and Technology, Nanded, January 27-28, 2018.

**Prof. Vasan has:**

- Delivered an invited lecture on “Development of Surfaces of Solids” during the AICTE-ISTE sponsored 6 day Refresher Programme on “Engineering Drawing – An Effective Teaching **Methodology**” organized by Department of Mechanical Engineering, Malla Reddy Engineering College (Autonomous) Main Campus, Hyderabad, July 02-07, 2018.
- Delivered lectures on “Optimization of Reservoir Operation” during the five day Training Workshop on “Reservoir Simulation Using NIH\_ReSyP” jointly organized by National Institute of Hydrology (A Govt. of India Society under Ministry of Water Resources, River Development and Ganga Rejuvenation) and Centre of Excellence in Water Resources Management, Department of Civil Engineering, BITS Pilani Hyderabad Campus, June 25-29, 2018.
- Delivered two lectures on “Nature Inspired Optimization **Techniques**” & “**Multiobjective Evolutionary Optimization**” during the Two Day Workshop on Data Mining and Soft Computing Techniques, organized by Department of Civil Engineering, BITS Pilani, Hyderabad Campus. April 13-14, 2018.
- Delivered an invited lecture on “Bio-Inspired Optimization Algorithms for Structural Engineering Application **Problems**” during the Two Day TEQIP III sponsored Workshop on “**Advanced Concrete Technology and Its Applications**”, organized by Government College of Engineering, Salem, Tamil Nadu, March 16, 2018.
- Delivered an invited lecture on “Writing and Publishing Quality **Manuscripts**” during the One Day Workshop on “**How to Write Good Research Proposals**”, organized by VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, February 23, 2018.

**Prof. Vinayaka Ram has:**

- **Sreenidhi Institute of Science and Technology, Ghatkesar, Hyderabad** : Invited as a resource person during 2-day Symposium on “Sustainable Construction Materials and Techniques”. 29th and 30th June 2018. Delivered a lecture on “**Sustainable Green Technologies in Civil Engineering**” on 30.06.2018
- **Engineering Staff College of India (ESCI), Hyderabad**: Guest faculty during Continuing Professional Development Programme (CPDP) on “**Pavement Management Systems (Flexible, Composite and Rigid)**” conducted during 26 – 29 June, 2018 – Delivered four lectures in the areas of (a) Pavement Preservation Techniques (b) Pavement Performance Evaluation for flexible pavements (c) Pavement Performance Evaluation for rigid pavements and (d) Role of HDM-4 in PMS on 28.06.2018 (4 successive sessions of 1.5 hours each)
- **Mahatma Gandhi Institute of Technology, Hyderabad** : Key note address on “**Sustainable Materials with a special reference to Roads and Buildings**” during the the National Conference on “**Innovations in Civil Engineering through Sustainable Technologies (NICEST’18)**” during 16-17 February, 2018, FTAPCCI, Red Hills, Hyderabad. On 16.02.2018
- **CVR College of Engineering (Hyderabad)** – Delivered a guest lecture on “**Highway Material Characterization**” on 17.01.2018 for the benefit of Final; Year Students and Faculty Members on Invitation from the HOD, Department of Civil Engineering.

**Prof. A Jagadeesh has :**

- Training the Engineers at Andhra Pradesh Human Resource Department Institute (APHRDI) delivered a guest lecture at Andhra Pradesh Human Resource Department Institute (APHRDI) on June 2018

**Prof. Sridhar Raju has:**

- Delivered a guest lecture in a Training QA/QC Supervisors for Road Projects at L&T Training Centre, Lonavala, Maharashtra on Feb 26, 2018
- Delivered a guest lecture in a Training L&T Engineers at Aurangabad, Maharashtra on April 14, 2018
- Delivered a guest lecture in a Training the Engineers at Andhra Pradesh Human Resource Department Institute (APHRDI) at Andhra Pradesh Human Resource Department Institute (APHRDI), Vishakapatnam on Jun 21, 2018.
- Delivered a guest lecture in a Training QA/QC supervisors for road projects at L&T Project Site, Ahmedabad on June 23, 2018.
- Delivered a guest lecture in a Alternative Materials and New Technologies for Construction of Rural Roads at IIT Bhubaneswar on Jun 28, 2018.

- Delivered a guest lecture in the Training AP PWD Engineers at Andhra Pradesh Human Resource Department Institute (APHRDI), Bapatla on Jul 10-11, 2018.

**Dr. Anusua GuhaRay has:**

- Delivered an Invited Talk on "Foundation Designs and Geotechnical Aspects" and "Landslide Risk Management and Control Measures" organised by Andhra Pradesh Human Resource Development at APHRD Office, Bapatla, Andhra Pradesh on 4th May, 2018.

**Dr. Murari R R Varma has:**

- Delivered an Invited Talk in the Training the Engineers at Andhra Pradesh Human Resource Department Institute (APHRDI) at Andhra Pradesh Human Resource Department Institute (APHRDI), Bapatla, AP on Jul 12 -13, 2018.

**v. Invited talks arranged in the department:**

Guest lecture on Water audits and their role in municipal water management on November 30, 2018

Centre of Excellence in Water Resources Management, Department of Civil Engineering is organizing a guest lecture by **Mr. William DeOreo**, President and Principal Engineer of Aquacraft, Inc, USA, & Prof.K.Srinivasa Raju, Co-Ordinator.

Mr. DeOreo has been actively practicing water engineering since 1978 after receiving his Master Degree in Civil and Environmental Engineering from the University of Colorado, Boulder. Prior to this he received a Bachelor of Arts (Biology) from Boston University, in 1971, and a Bachelor of Science (Civil Engineering) from University of Colorado, Boulder, in 1975. He has worked both in the public sector and as a private consultant. His main interests are in development of innovative supplies of water for municipal uses, improving the yield of urban water systems through better water planning and management, integration of urban water uses into watershed analyses, and development of computer based applications to assist with water planning.

**vi. Awards and recognitions won by faculty and students:**

**1) Faculty's:**

Prof. Komaragiri Srinivasa Raju has received following Award:

- Associate Editor, ISH Journal of Hydraulic Engineering, Taylor & Francis**
- Guest Editor**, Special Issue on "Soft Computing in Water Resources Engineering, ISH Journal of Hydraulic Engineering, Taylor & Francis, 24(2), June 2018, pp. 115-266. ([Special Issue Link](#)) ([Cover Page, Foreword and Contents](#))
- h-index: 19** and Citations **1664** as on 29.07.2018 [Set of the **Researcher's** Most Cited Papers and the Number of Citations That They Have Received in Other Publications; [Source: Google Scholar](#)]
- Researchgate Score **27.25** and Publications Reached **6869** Reads (as on 29.07.2018) ([Source: ResearchGate](#))
- 2018: Prof K Srinivasa Raju secured 1st position (Best Oral Presentation) for the Paper titled "Evaluation of RainfallRunoff Model Structures in R Platform: Case Study", National Symposium on Emerging Environmental Challenges: An Engineering Approach (EEC 2018), jointly organised by CSIR-National Environmental Engineering Research Institute (NEERI), Hyderabad Zonal Centre and Department of Chemical Engineering, BITS Pilani, Hyderabad Campus (Venue: BITS Pilani, Hyderabad Campus, India), February 16, 2018. Authors for the paper are Sriman Pankaj B, K. Srinivasa Raju.**

**Subject Expert:**

- Nominated by Kakatiya University, Warangal to conduct faculty recruitment interview at Kakatiya Institute of Technology and Science (KITS), Warangal (Interview was conducted on December 8, 2018 at KITS Warangal).
- Internal Expert for selection of Research Associate for the CSIR project on Water Distribution Networks, BITS Pilani Hyderabad Campus. Interview was held on October 29, 2018.
- External Doctoral Committee member for Ph.D Scholar Mr Parthiban L, School of Civil Engineering, Vellore Institute of Technology, Vellore (With effect from October 4, 2018).
- External Expert for Selection of the Candidates Seeking Admission into Ph.D/M.S Research Program 2017- 2018 (Appointment by Vice-Chancellor), Centre for Water Resources, Earth and Atmospheric Sciences, Jawaharlal Nehru Technological University (JNTU), Hyderabad. Interviews were conducted on June 7, 2018 at JNTU Hyderabad.

- Faculty Recruitment Interviews at Mahindra Ecole Centrale (MEC) Engineering College, Hyderabad. Interviews were conducted on May 22, 2018 at MEC campus.

#### Member, Board of Studies (BOS) in Civil Engineering/Water Resources

- Anurag Group of Institutions, Hyderabad (With effect from December 13, 2018 for a period of one year). (BOS Meeting held on December 18, 2018)
- Kakatiya Institute of Technology and Science (KITS) Warangal (With effect from May 15, 2018 for a period of two years) (BOS Meeting held on June 12, 2018)
- Chaitanya Bharathi Institute of Technology (Autonomous), Hyderabad (With effect from August 8, 2015 for a period of two years) (BOS Meeting held on March 11, 2017; June 6, 2016; August 24, 2015); Reconstituted BOS with effect from December 29, 2017 for a period of two years. (BOS Meeting held on April 19, 2018).
- Osmania University College of Engineering (Autonomous), Hyderabad (With effect from February 5, 2014 for a period of two years) (BOS Meeting held on April 22, 2017; April 16, 2014); Reconstituted BOS with effect from February 15, 2018 for a period of two years.

#### Member, Technical, Advisory and Organizing Committees of Conferences/Workshops

- Scientific and Advisory Committee, 5th National Conference on Water, Environment & Society (NCWES-2018), Centre for Water Resources, Institute of Science and Technology, Jawaharlal Nehru Technological University, Hyderabad, June 4-6, 2018.
- National Advisory Committee, Two Day National Conference on Advanced Computing Applications in Civil Engineering (ACACE-2018), Osmania University College of Engineering, Hyderabad, April 20-21, 2018.
- Scientific Committee, SWAT 2018: International Workshops and Conference, Indian Institute of Technology, Madras, Chennai, India, January 8-12, 2018

#### Session Chair /Co-Chair/Panel Member:

- Chairperson, Plenary Session-II, Lake and River Water Management: Challenges & Sustainable Engineering Solutions, National Symposium on Emerging Environmental Challenges: An Engineering Approach (EEC 2018), Jointly Organised by CSIR-National Environmental Engineering Research Institute (NEERI), Hyderabad Zonal Centre and Department of Chemical Engineering, BITS Pilani Hyderabad Campus (Venue: BITS Pilani Hyderabad Campus, India), February 16, 2018 (Received Memento from Prof. I.Sreedhar, Organising Secretary for Chairing a Session)
- Moderator, Session B3, Hydrologic Modelling and Remote Sensing Applications, SWAT 2018 International Workshop and Conference, January 10-12, 2018, Chennai, India (Session was moderated on January 10, 2018) (Memento receiving from Dr Peter Allen, Baylor University, USA for Moderating the Session)

#### Chief Guest for the following Events:

- Engineers Day, Gudlavalleru Engineering College, Gudlavalleru, Andhra Pradesh, September 15, 2018.
- Function of UN World Water Day and UN International Mother Earth Day, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad, March 29, 2018. [Hindu Paper Coverage, April 2, 2018] and Delivered Lecture on Consequences and Management of Urban Floods and Climate Change as part of Chief Guest Address.

#### Participation in Conferences/ Meetings/Workshops/Field Visits:

- Field Visit to Infosys Digital Agricultural Farm, Pocharam, Hyderabad on October 7, 2018. Field Visit includes Visit to Solar Park, Agricultural farm; Demonstration of Adopted Water Conservation Approaches and Presentations.

#### Dr. A. GuhaRay has received following Award:

- Dr A Guharay was offered the International Travel Grant (ITS) from DST, Govt. of India for presenting paper in International Foundations Congress Equipment Expo (IFCEE 2018) in Orlando, Florida in March, 2018.

#### Dr Bandhan Majumdar has received following Award:

- Dr Bandhan Majumdar was awarded with the GCRF (Global Challenge Research Fund) award as ODA-Partners from India with Cardiff university (May, 2018).



Dr. Bahurudeen A. and Dr. Arkamitra Kar has received following Award:

OPERA Award (Outstanding Potential for Excellence in Research and Teaching (2015-2020))

2) **Student's: NA**

vii. Faculty Development, International Collaboration & Industry Immersion:

Cardiff University, UK Joint research visit and GCRF Grant Award

viii. Significant **new equipment's/experimental facility added during the year:**

- Procured One Big Shake Table worth 23, 00,000/- for Structure Laboratory purpose as on 10.06.2018.
- **Manufactured a Retaining Wall Setup in the month Dec'2018 for Research purpose.**
- Setting up advanced traffic and transportation laboratory with various transportation software and instruments as departmental initiative.

ix. Departmental association/club activities:

- 1) Chaired a Session during the 2<sup>nd</sup> International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE 2018), organized by Department of Civil Engineering, BITS Pilani, Pilani Campus, February 26-28, 2018.
- 2) **Workshop on 'Data Mining and Soft Computing Techniques in Civil Engineering' Centre of Excellence in Water Resources Management, Department of Civil Engineering, BITS Pilani, Hyderabad Campus, organized a workshop on Data Mining and Soft Computing Techniques in Civil Engineering, on April 13-14, 2018. The total number of participants was 43. External experts included Prof D Nagesh Kumar, IISc. Bangalore; Dr Nagesh B Sristy, IDRBT Hyderabad. In addition, a number of experts from BITS Hyderabad also delivered lectures during the workshop.**



A session, by Prof D Nagesh Kumar, in the workshop on data mining and soft computing techniques in civil engineering.

- 3) **Workshop on 'Reservoir Simulation Using NIH\_ReSyP' Centre of Excellence in Water Resources Management, Department of Civil Engineering, BITS Pilani, Hyderabad Campus, and National Institute of Hydrology, Roorkee (A Govt. of India Society under Ministry of Water Resources, River Development and Ganga Rejuvenation) jointly organized a five-day training workshop on "Reservoir Simulation Using NIH\_ReSyP" from June 25 to 29, 2018. Twenty officers participated. Dr SK Jain, Director, National Institute of Hydrology, Dr MK Goel (Scientist G) and Dr Deepa Chalisgaonkar (Scientist F) delivered lectures along with experts from BITS Hyderabad.**



Dr SK Jain, Director, National Institute of Hydrology, delivering a lecture in the workshop on Reservoir Simulation Using NIH\_ReSyP.



- 4) **A One Day Workshop on 'Dynamic Testing and Simulation of Civil Structures conducted on 8 th October, 2018'** Organised by Department of Civil Engineering, BITS Pilani, Hyderabad Campus and in Association with DST – FIST Sponsored by Universal Mechatronics, CO-ORDINATORS: Prof. Sridhar Raju & Dr. S. C. Mohan & RESOURCE PERSONS: Dr. S C Mohan, Dr. Arkamitra Kar, Prof P N Rao, Dr. Chandu Parimi, Dr. Kalyana Rama J S, Dr. Bahurudeen A.

**ABOUT THE WORKSHOP:** Dynamics of Structures and Earthquake engineering is an essential research topic of Civil Engineering. To understand the dynamic behaviour of structures, vibration testing is necessary. The aim of this workshop is to train the participants on the importance of vibration testing of civil structures. The participants will be exposed to hands-on experience of numerical modelling (STAAD Pro) and experimental testing (Shake Table). This workshop will be very useful for all researchers working in the field of structural dynamics and earthquake engineering.

- 5) **One Day Seminar on Pavements Quality and Bitumen Rheology on 11th December 2018 at BITS Pilani** Sponsored by M/s Antnonpaar India Limited, Organised by Prof. V Vinayaka Ram and Prof. Sridhar Raju, Department of Civil Engineering. Details of guest speakers is provided below for reference

- Sustainable Technologies for Construction of Durable Roads by Prof. V Vinayaka Ram, BITS Pilani Hyderabad Campus
- Basics of asphalt Rheology and importance of DSR in Binder Characterization ( Mr.Maharshi Gajjar-Anton Paar India)
- Asphalt Binder Testing - Mr.Oliver Sack - Anton Paar Austria
- Discussion on Plastic Modified Bitumen / Bituminous Concrete - Prof. Sridhar Raju

x. **Major maintenance, renovations or new construction reports:**

- Newly renovated an Advanced Transportation Laboratory for First Degree Student, Research Scholars & Faculties Research Purpose.

xi. **Major equipment's acquired during the year:**

- Procured One Big Shake Table worth 23, 00,000/- for Structure Laboratory purpose as on 10.06.2018.
- **Manufactured a Retaining Wall Setup in the month Dec'2018 for Research purpose.**
- Setting up advanced traffic and transportation laboratory with various transportation software and instruments as departmental initiative.

**B3.10.5 Computer Science and Information Systems**

Number of faculty members

Senior Professors, Professors	1
Associate Professors	5
Assistant Professors	10
Visiting Professor	3

Head of the Department : Prof. Tathagata Ray

Contact details: Phone: 040 – 6630-3596 Email: rayt@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: 21

Full-time : 13

Part-time: 4

Aspirants: 1

Faculty: 3 Total: 21

**I. Sponsored Research activities:****(a) Ongoing projects**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Lightweight Code Self-verification for Internet of Things (IoT) Devices	Prof. Chittaranjan Hota	DeitY-NWO	48.00	2015-19
2.	Network Coding with Pascal Coefficients for unreliable networks	Dr. Paresh Saxena	AnsuR Technologies, Oslo, Norway	5.55	2018-19

Projects sanctioned during the year: 5.55 Lakhs

**II. Publications:****(a) Journal Publications**

1. C K Shriram, K Muthukumar, N L Bhanu Murthy "Empirical Study on the Distribution of Bugs in Software Systems". International Journal of Software Engineering and Knowledge Engineering, January 2018 Volume 28 sue, pp: 97-112.
2. Barsha Mitra and Harika B, "Enhancing User Access Information with Spatial Data", Journal of Information & Optimization Sciences, Taylor and Francis (accepted).
3. BKSP Kumar Raju and G Geethakumari, "SNAPS: Towards Building Snapshot based Provenance System for Virtual Machines in the Cloud Environment", Elsevier Computers and Security Journal, June, 2018.
4. Abhishek Thakur, R Sathiyarayanan, and Chittaranjan Hota, "STEEP: speed and time-based energy efficient neighbor discovery in opportunistic networks", Wireless Networks, Springer, pp. 1-22, 2018.
5. Neha Singh, Tathagata Ray, Chandu Parimi, Srivastava Kuchibhotla, "Input Size Independent Efficient Quality Meshing of the Interior of 2D Point Cloud Data", Journal of Computational Design and Engineering, Elsevier, 2018.
6. Alavalapati Goutham Reddy, Devanapalli Suresh, Kolloju Phaneendra, Ji Sun Shin, Vanga Odalu, "Provably Secure Pseudo-Identity Based Authentication for Smart Cities Environment", Sustainable Cities and Society, Volume 41, 2018.

**b. Conference Publications**

1. Surender Singh Samant, N.L. Bhanu Murthy and Aruna Malapati, "CapAct: A Wordnet-Based Summarizer for Real-World Events from Microblogs", 14th International Conference on Distributed Computing and Internet Technology (ICDCIT 2018), 11-13 January, India
2. Rashmi Sahay, G Geethakumari and Koushik Modugu, "Attack Graph-Based Vulnerability Assessment of Rank Property in RPL-6LOWPAN in IoT", IEEE 4th World Forum on Internet of Things (WF-IoT 2018), 05-08 February 2018, Singapore.
3. B.S.A.S Rajita, S. Panda, A. Narshimamurthy, and Vijaybhaskar M., Interlocking Nodes for Structural Analysis in Social Networks, in 11th International Conference on Advanced Computing and Communication Technologies (ICACCT-2018), 17 – 18 February, 2018, India.

4. A Vijayalakshmi, and Chittaranjan Hota, "Intelligent Task Assignment in Crowdsourcing Platform", International Conference on Towards Extensible and Adaptable Methods in Computing-TEAMC 2018, pp. 339-350, 26-28 March 2018, India.
5. SaiKiranmai Gorla, Sriharshitha Velivelli, N.L.Bhanu Murthy ,Aruna Malapati, "Named Entity Recognition for Telugu News Articles using Naive Bayes Classifier", Proceedings of the Second International Workshop on Recent Trends in News Information Retrieval co-located with 40th European Conference on Information Retrieval (ECIR 2018), 26 March, 2018, Grenoble, France.
6. **Gokul Kannan Sadasivam, Chittaranjan Hota, and Anand Bhojan, "Honeynet Data Analysis and Distributed SSH Brute-Force Attacks", International Conference on Towards Extensible and Adaptable Methods in Computing-TEAMC 2018, pp. 339-350, 26-28 March 2018, India.**
7. A Vijayalakshmi, and Chittaranjan Hota, "Social media and Machine computation for Task Assignment in Crowdsourcing platform", IEEE International Conference on Innovative Technologies in Engineering (ICITE-2018), 11-13 April 2018, India.
8. Aniketh Janardhan Reddy, Monica Adusumilli, Sai Kiranmai Gorla, Lalita Bhanu Murthy Neti and Aruna Malapati, "Named Entity Recognition for Telugu using LSTM-CRF", 11th edition of the Language Resources and Evaluation Conference (LREC) 2018, 7-12 May 2018, Miyazaki, Japan.
9. Saikiranmai Gorla, Sriharshitha Velivelli, Dipak Kumar Satpathi, N L Bhanu Murthy, Aruna Malapati, "**Named Entity Recognition using Part-of-Speech Rules for Telugu**", **6th International Conference on Advanced Computing, Networking, and Informatics (ICACNI 2018)**, 04 - 06 June 2018, India.
10. Harshit Gujral, Abhinav Sharma, Sangeeta Lal, Amanpreet Kaur, Lov Kumar and Ashish Sureka, "Empirical Analysis of the Logging Questions on the SO Website ", Conference On Software Engineering & Data Sciences (CoSEDS 2018), University of Kashmir, 20-21 June 2018, India.
11. Lov Kumar, and Ashish Sureka, "An Empirical Analysis on Web Service Anti-Pattern Detection using a Machine Learning Framework ", 42nd IEEE Computer Software and Applications Conference (COMPSAC), pp. 2-11, 23-27 July 2018, Tokyo, Japan.
12. Jinu M Sunil, Lov Kumar, N L Bhanu Murthy, "Bayesian Logistic Regression for software defect prediction", Thirtieth International Conference on Software Engineering and Knowledge Engineering (SEKE 2018), 1-3 July 2018, San Francisco Bay, USA.
13. Sourav Saha, Odelu Vanga and R. Rajendra Prasath, "Enhanced Session Initiation Protocols for Emergency Healthcare Applications", Sixth International Symposium on Security in Computing and **Communications (SSCC'18)**, 19-22 September, 2018, India.
14. Sanket Mishra, Sarthak Rajwanshi, and Chittaranjan Hota, "An ensemble approach with differential evolution optimization to detect occupancy in IoT environments", International Conference on Intelligent Computing (ICIC 2018), 25-27 October 2018, India.
15. B.S.A.S Rajita and S. Panda, Events Detection in Temporally Evolving Social Networks, in 8th International Conference on Big Knowledge (ICBK -2018), 17 -18 November, 2018, Singapore.
16. **Rashmi Sahay, G Geethakumari, Koushik Modugu and Barsha Mitra, "Traffic Convergence Detection in IoT LLNs: A Multilayer Perceptron based Mechanism", Proceedings of the 2018 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2018), 18 – 21 November, 2018, India**
17. **Rashmi Sahay, G Geethakumari, Barsha Mitra and Ipsit Sahoo, "Efficient Framework for Detection of Version Number Attack in Internet of Things", Proceedings of the 2018 International Conference on Intelligent Systems Design and Applications, (ISDA 2018), 6 – 8 December, 2018, India.**
18. Lov Kumar, Shashank Mouli Satapathy, and Aneesh Krishna, "Application of SMOTE and LSSVM with various Kernels for Predicting Refactoring at Method Level", 25th International Conference on Neural Information Processing (ICONIP2018), 13-16 December 2018, Siem Reap, Cambodia (Accepted).
19. A Vijayalakshmi, and Chittaranjan Hota, "Reputation-based Reinforcement Algorithm for Motivation in Crowdsourcing Platform", International Conference on Computational Intelligence (ICCI 2018), 10-11 December 2018, India.
20. Manish K Tripathi, Divyanshu Chaubisa, Lov Kumar, and Lalita Bhanu Murthy Neti, "Prediction of Quality of Service Parameters Using Aggregate Software Metrics and Machine Learning Techniques", 15<sup>th</sup> Annual IEEE India Conference (INDICON 2018), 16-18 December 2018, India.
21. **Rashmi Sahay, G Geethakumari, Barsha Mitra and V Thejas, "Exponential Smoothing Based Approach for Detection of Blackhole Attacks in IoT", Proceedings of the 2018 IEEE International Conference on Advanced Networks and Telecommunications Systems (IEEE ANTS 2018), 16 – 19 December, 2018, India.**
22. Sanket Mishra, Mohit Jain, B Siva Nagasasank, and Chittaranjan Hota, "An ingestion based analytics framework for Complex event processing engine in Internet of Things", 6th International Conference on Big Data Analytics (BDA 2018), 18-21 December 2018, India.

23. M. V. Prudhviraj and S. Panda, "Simulated Annealing: An Experimental Application on Pairwise Testing", in 6th International Conference on Applied Science Engineering and Technology (ICASET-2018), 29 – 30 December, 2018, India.
24. Christopher J., Prasath R., Vanga O. (2018) Expert Intelligence: Theory of the Missing Facet. In: Groza A., Prasath R. (eds) Mining Intelligence and Knowledge Exploration. MIKE 2018. Lecture Notes in Computer Science, vol 11308. Springer 20-22 December 2018, Napoca, Romania.
25. Neha Singh, Tathagata Ray, "A comparative study of sampling criteria for curve reconstruction problem", International Workshop and Conference on Topology & Applications 2018, 9-11 December 2018, India.

c. Conferences attended/papers presented:

Faculty Name	Name of Conference	Dates of Conference	Venue
Surender Singh Samant	14th International Conference on Distributed Computing and Internet Technology (ICDCIT-2018)	January 11-13	KIIT, India
Dr. Lov Kumar	11th Innovations in Software Engineering Conference (ISEC)	February 9-11 2018	Hyderabad, India
Dr. Subhrakanta Panda	11th Innovations in Software Engineering Conference (ISEC)	February 9-11 2018	Hyderabad, India
Gokul Kannan Sadasivam	Intelligent Task Assignment in Crowdsourcing Platform", International Conference on Towards Extensible and Adaptable Methods in Computing-TEAMC 2018	March 26-28 2018	Delhi, India
Dr. Lov Kumar	11th Workshop on Recent Trends in Software Testing (RTST-2018)	May 18-22 2018	KIIT, Bhubaneswar, India
Dr. Subhrakanta Panda	11th Workshop on Recent Trends in Software Testing (RTST-2018)	May 18-22 2018	KIIT, Bhubaneswar, India
Dr. N.L.Bhanu Murthy	6th International Conference on Advanced Computing, Networking, and Informatics (ICACNI 2018)	June 4-6 2018	NIT Silchar, India
Dr. Lov Kumar	Conference on Software Engineering and Data Science (CoSEDS 2018)	June 20-21 2018	University of Kashmir, Srinagar, India
Dr. Lov Kumar	42nd IEEE Computer Software and Applications Conference (COMPSAC) (paper presented (skype))	July 23-27 2018	Tokyo, Japan
Dr. Odelu Vanga	Sixth International Symposium on Security in Computing and Communications (SSCC'18)	September 19-22, 2018	PES Institute of Technology (South Campus), Bangalore, India
Dr. Lov Kumar	International Conference on Computational Intelligence & IoT (ICCIoT) 2018	December 14-15 2018	National Institute of Technology Agartala, Tripura, India
Dr. Jabez Christopher	Sixth International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2018)	December 20-22 2018	Cluj - Napoca, Romania

III. Invited Talks given by BITS faculty:

Name of the Faculty Member	Title of the Lecture(L) / Workshop(W) and Occasion (if any)	Institution in which it was delivered / conducted	Duration / Date ( DD-MMM-YYYY)
Dr. Lov Kumar	Effective Fault Prediction Model Developed using Artificial Intelligence Techniques, Workshop on "Data Visualization and Machine Learning using Python	CVR College of Engineering, Hyderabad	2 hours, 13-04-2018

Name of the Faculty Member	Title of the Lecture(L) / Workshop(W) and Occasion (if any)	Institution in which it was delivered / conducted	Duration / Date ( DD-MMM-YYYY)
Dr. Subhrakanta Panda	Software Testing Evolution and Machine Learning, Workshop on "Data Visualization and Machine Learning using Python	CVR College of Engineering, Hyderabad	1.5 hours, 13-04-2018
Dr. Lov Kumar	Application of Artificial Intelligence Techniques in Development of Effective Fault Prediction Model, 11th Workshop on Recent Trends in Software Testing (RTST-2018)	KIIT, Bhubaneswar, India	1.5 hours, 21-05-2018
Dr. Subhrakanta Panda	Security Testing: An Introduction, 11th Workshop on Recent Trends in Software Testing (RTST-2018)	KIIT, Bhubaneswar, India	1.5 hours, 21-05-2018
Dr. Lov Kumar	Application of Artificial Intelligence Techniques in Development of Fault Prediction Model	Verizon	1.5 hours, 29-05-2018
Dr. Lov Kumar	Effective Fault Prediction Model Developed Using Source Code Metrics, CoSEDS 2018	University of Kashmir, Srinagar, India	1.5 hours, 21-06-2018
Dr. Odelu Vanga	Authentication and Blockchain	International Institute of Information Technology, Hyderabad	1 hours 05-10-2018
Prof. G Geethakumari	Introduction to Cloud Forensics and its Challenges	Training Programme for experts from BIMSTEC Countries (Bangladesh, India, Myanmar, Sri Lanka, Thailand, Nepal and Bhutan), at the Central Forensic Science Laboratory (CFSL), Hyderabad	2 hours, 16-11-2018
Prof. G Geethakumari	Embedded System Security	Defense Electronics Research Lab (DLRL), DRDO, Hyderabad.	2 hours, 12-12-2018

#### IV. Invited talks arranged in the department:

1. Prof. Nigamanth Sridhar, BITS alumnus (93-97), and presently Associate Professor in the Electrical Engineering and Computer Science Department at Cleveland State University visited CSIS Department on 23/1/2018 to discuss the graduate program of Cleveland State University.
2. Dr. Amit Chattopadhyay from IIIT Bangalore delivered a talk on "emerging area of Computer Science called Topological Data Analysis" on 2/2/2018.
3. Prof. Ponnurangam Kumaraguru from IIIT, Delhi delivered an invited ACM distinguished Talk on " Fake Content, Scams, Privacy, Manipulated Accounts on Social Media" on 16/2/2018.
4. Mr. Ravi Meduri from Innominds delivered a talk on "Advanced Machine Learning" on 23/2/2018.
5. **Mr. Shreekant Mandke from Amazon India Pvt. Ltd. gave a talk on "Enterprise Software Architect" on 14/04/2018.**
6. Daan van Esch, Technical Program Manager, Google, Mountain View, California, USA, delivered a talk on "Internationalizing Language Technology: Building Technology across the World's Languages", on 05/09/2018.
7. Prof. Abhiram Ranade from IIT, Bombay delivered an invited BITS Colloquium talk on " Introductory Programming for Science and Engineering Majors " on 20/9/2018.
8. The department organized a workshop "Expository Lectures on Graph and Geometric Algorithms" in association with ACSDM between 21-22 September 2018.

9. Dr. Sagnik Sen from Ramakrishna Mission Vivekananda Educational and Research Institute visited the Department and took guest lectures for MTech students on Advanced Algorithms between 20-22nd September 2018.
10. Prof. Sakthi Balan from LNMIIT delivered a talk on "Online Social Synchrony and its Application to Detect Events in Social Media" on 21/12/2018.

#### V. Awards and recognitions won by faculty and students

Sl. No.	Name of the Faculty/Student	Details of the Award/Recognition
1.	Prof. G Geethakumari	Elevated as Senior Member, IEEE, from February, 2018.
2.	Dr. Subhrakanta Panda	Best Paper Award, 6th International Conference on Applied Science Engineering and Technology (ICASET-2018), (IFERP, Pondicherry, India, 29th – 30th December, 2018
3.	CSIS student team	KPIT Best Innovation Award at the Grand Finale of the Smart India Hackathon-2018, organized by ISRO at its Ahmedabad Center in March 2018. The team won a cash award of Rs. 10,000 along with other prizes from ISRO, Govt.of India and the Government of Gujarat.
4.	Computer Science Association	Best Technical Association for the year 2018.

#### VI. Faculty Development, International Collaboration & Industry Immersion: NIL

#### VII. Significant new equipments/experimental facility added during the year: NIL

#### VIII. Departmental association/club activities:

##### Departmental association/club activities:

The CS/IS Department has the three student run bodies which work throughout the year to organize various talks and workshops for the students. This report lists down all the activities carried out by the following bodies in 2017.

1. Computer Science Association
2. Embryo
3. CRUX

##### Computer Science Association Activities

1. Competitive Coding Workshop (collaboration with Crux) : 5<sup>th</sup> to 11<sup>th</sup> February 2018
2. Introduction to Git & GitHub Workshop (collaboration with CRUX) : 7<sup>th</sup> and 8<sup>th</sup> February 2018
3. Inter BITS Coding League: 8<sup>th</sup> April. This is one of the most nail biting competitions, conducted across all 4 campuses.
4. Software Engineering at Amazon : An invited talk by Shreekant Mandke, Software Development Manager @Amazon, 14<sup>th</sup> April
5. Student Faculty Interaction : 5th September
6. Talk on Language Technologies & Localisation at Google, by Daan van Esch, Technical Program Manager, Languages and Keyboard@Google
7. Software Engineering Workshop by Prof. Narsimha Bolloju. Multiple sessions were conducted to expose students to the topics of Scrum, Agile and Software Engineering Practices. These events helped drum up a lot of interest for the Software Engineering elective.
8. 3D Point Cloud Analysis using Deep Learning : A talk by SK Reddy, Chief Product Officer, Hexagon
9. Microsoft code-fun-do: On site regionals. 3 Teams won prizes, one team qualified to the nationals.
10. Expert Talk n AI/ML, by Couture AI : Dr. Shailes Kumar, Prateek Srivastava, Shobhit Agarwal
11. Talk on Global Academic Internship Program at NUS, Singapore.
12. Pre Atmos Events
  - a. Mock Algomaniac
  - b. Mock Code Golf

## 13. ATMOS

- a. Ethical Hacking Workshop
- b. Machine Learning Workshop
- c. Algomaniac
- d. Codegolf
- e. Paper Presentation

**Embryo activities**

1. Introduction to Rust: A tech talk by Mozilla Contributors was conducted on 14<sup>th</sup> January 2018
2. Alumni Talk: Sudarshan Ghonge, on opportunities in Physics. Talk was conducted on 16<sup>th</sup> January.
3. PPO Talk: A talk by accomplished students on how to get a coveted PPO from your internship/PS Company. 10 speakers from varied branches were invited. Conducted on 30<sup>th</sup> Jan 2017
4. Off-campus Thesis Opportunities: 6 students from BITS Hyderabad, who had received offers to do their undergraduate thesis abroad spoke about challenges they faced, tips and tricks to be successful. Talk conducted on 7<sup>th</sup> February
5. MS Opportunities in the USA, by Dr. Alec Yasinac. Conducted on 27<sup>th</sup> February
6. Talk on succeeding at GRE & CAT, by our own students. Talk was conducted on 28<sup>th</sup> February
7. Pearl 2018 (23-25 March 2018)
  - a. Photographers Talk, a collaboration with the Photography Club
  - b. Pearl for Equality : Panel Speakers were Gauri Sawant, Hans Dalal.
  - c. Bollywood Panel : Shilpa Shukla, Shriya Pilgaonkar were
  - d. re the invited speakers.
  - e. Alfaaz, a poetry event. Famous performers, Yahya Bootwalla, Rakesh Tiwari, Amandeep Singh, moved the audience with their performances.
  - f. YouTube Panel : Prajakta Kohli, Sejal Kumar, Rishabh Rana, Larissa Dsa
  - g. Off-Beat : Natasha Diddee, Sundar Ramu
8. BITSians Day : 3<sup>rd</sup> August 2018.
9. UPSC Talk, by Anudeep Durishetty, rank 1 IAS exam
10. Masters in Management Abroad, by Ramit Mehta. MIM is not as popular as MBAs. This talk was conducted to introduce people to this alternative.
11. ATMOS 2018 (26 to 28 October)
  - a. Indian Economics in the 21<sup>st</sup> Century, by Dr. Subramanian Swamy, interviewed by Sriram Karri.
  - b. An Ode to 26/11 : Sanjay Govilkar, Praveen Teotia.
  - c. Jumpstart 2.0 : Talks by Entrepreneurs
  - d. A talk on Blockchain technologies by Sanachit Mehra
12. BITS Colloquium : Indian Human Spaceflight Programme, by Dr. VR Lalithambika.

**CRUX Activities**

1. Competitive programming contests
2. Machine Learning workshops - Taught students the basics of machine learning.
3. DIY workshop - Taught students how they can keep PC performance optimized and provided useful tools for the same.
4. Summer vacations 2018
  - a) Crux saw the summer vacations as an opportunity to learn something new and to enhance one's knowledge and skills.



- b) Members created Facebook groups dedicated to each of the following - Web Development, Competitive coding, Python programming, Android development. Regular tutorials and practice materials were posted for the students to learn from. Members were active throughout the vacations to help people out and resolve their queries.
  5. Chat Bot Hackathon, in association with IMImobile
  6. Python Workshops - Taught student's basics of Python programming.
  7. Web Development Workshops - Taught basic HTML/CSS and Javascript for web programming.
  8. Android Development Workshops - Basic and advanced workshops on android development.
  9. **ATMOS '18**
    - a) Reverse Coding - Competition based on reverse engineering
    - b) Codejam - Competitive programming competition.
    - c) PyBITS - Python conference conducted in association with Python Software Foundation. Additionally, multiple workshops in Python ranging from basic to advanced level were also held.
    - d) Binary Battles - A new format of competitive programming contests.
  10. Winter vacations 2018-19
    - a) Facebook groups were (and continue to be) active throughout the vacations.
- IX. Major maintenance, renovations or new construction reports: NIL**
- X. Major equipments acquired during the year: NIL**

### B3.10.6 Electrical and Electronics Engineering

#### Number of faculty members

Professors	1
Associate Professors	4
Assistant Professors	21
Lecturers	3
Visiting Faculty	1
Professor Emeritus	0

Head of the Department : Prof. Sanket Goel

Contact details: 040-66303686 Email: sgoel@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: 50

- Full Time 35
- Part Time 15

#### I. Sponsored Research activities:

##### (a) Ongoing projects

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Start Date	Duration
1	OPERA	Sayan Kanungo	BITS OPERA	3.6 per year	27th Aug'2018	5 years
2	Simulation Design and Modelling of Vertical Heterostructure Transition Metal Dichalcogenides for Label-free Electrochemical Gas-sensing Applications	Sayan Kanungo	BITS RIG	2	8th Nov'2018	2 years
3	Metal-Oxide and Nano-Composite Based Low-Power Non-volatile Switching Device: A Novel Approach.	Souvik Kundu	BRNS, DAE	Rs. 34,90,650/-	2017	3 Years
4	Investigations of the effects of photon up-conversion materials on the electrical performance of ferroelectric/semiconductor heterojunction photovoltaic devices	Souvik Kundu	SERB (EMR), DST	Rs. 35,63,997/-	2018	3 Years
5	Development of low power motion estimation architecture for HEVC application	Sumit K Chatterjee	BITS RIG	2	19th July 2017	2 Y
6	Strategies for Fault-Tolerant Network-on-Chip Design	Soumya J	ECR-SERB	25.93	6th Mar, 2017	3 Years
7	Underwater Characterization of Solar cells and its Optimization	Sanket Goel	DMSRDE, DRDO	9.85 lakhs	July 2018	2 Years
8	Digital 3D Printed Electronic Technology for Space Electronic Packaging Applications	Sanket Goel	ISRO	26.36 lakhs	Aug 2018	3 years
9	Research on Applied Signal Processing	Rajesh Kumar Tripathy	BITS OPERA	3.6 lakhs per year	5th July 2018	5 years
10	OPERA	Manish Narwaria	BITS OPERA	3.6 lakh per year	27 Aug. 2018	5 years
11	Wavelet based pattern recognition and motor current signature analysis of stator	Sudha Radhika	BITS RIG	2	6th Dec 2017	2 Years

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Start Date	Duration
	winding faults due to insulation failure in industrial machines					
12	Design and Implementation of Hardware Architectures for Media Processing Applications	Syed Ershad Ahmed	BITS RIG	2	09 April 2018	2 Years

## External Projects sanctioned during the year

SL No	Project Name	PI & co-PI	Funding Agency	Sanctioned Amount (Lakhs)	Start Date	Duration
1	Investigations of the effects of photon up-conversion materials on the electrical performance of ferroelectric/semiconductor heterojunction photovoltaic devices	Souvik Kundu (PI), K. Ramaswamy (Co-PI) and B. H. Venkatraman (Co-PI)	SERB (EMR), DST	Rs. 35,63,997/-	Mar 2018	2018 to 2021
2	Development of Methodologies for Self-Aware Network-on-Chip Design	Soumya J	Indo-Austria (OeAD-DST)	Recommended	-	2 Years
3	Underwater Characterization of Solar cells and its Optimization	Sanket Goel	DMSRDE, DRDO	9.85 lakhs	July 2018	2 Years
4	Digital 3D Printed Electronic Technology for Space Electronic Packaging Applications	Sanket Goel	ISRO	26.36 lakhs	Aug 2018	3 years

## II. Publications:

S No	Authors	Title of the Publications	Details of the Journal	Year
1	M. P. Raj, A. R. Kalita, M. K. Hudait, S. Priya, and Kundu, S.,	Nonlinear DC Equivalent Circuits for Ferroelectric Memristor and its FSM Application	Integrated Ferroelectrics (Taylor & Francis), SCI Indexed.	2018
2	M. P. Raj, A. Subramanian, S. Banerjee, S. Priya, and Kundu, S.,	Programming of Memristive Artificial Synaptic Crossbar Network using PWM Techniques	<i>Journal of Circuits, Systems, and Computers</i> (World Scientific), SCI Indexed. <a href="https://doi.org/10.1142/S0218126619502013">https://doi.org/10.1142/S0218126619502013</a>	2018
3	Pavan. B, M. P. Raj, S. Challagulla, S. R. Gollu, S. Roy, S. Banerjee, and Kundu, S.,	Unveiling the dual role of chemically synthesized copper doped zinc oxide for resistive switching applications	<i>Journal of Applied Physics</i> (AIP), SCI Indexed. <a href="https://doi.org/10.1063/1.5052619">https://doi.org/10.1063/1.5052619</a>	2018
4	Sravan K. Vittapu and Sumit K. Chatterjee	Complexity reduction for HEVC encoder using multiplication free one-bit transformation	<i>J. Electron. Imaging</i> <b>27</b> (6), 063028 (2018), doi: 10.1117/1.JEI.27.6.063028.	2018
5	P. Veda Bhanu, Pranav Venkatesh Kulkarni, Soumya J.	Fault-Tolerant Network-on-Chip Design with Flexible Spare Core Placement	<i>ACM Journal on Emerging Technologies in Computing</i> (To appear)	2018
6	Sanket Goel	From waste to watts in micro-devices: Review on development of Membraned and Membraneless Microfluidic Microbial Fuel Cell	<i>Applied Materials Today</i> . Vol. 11, pp. 270–279, 2018	2018

S No	Authors	Title of the Publications	Details of the Journal	Year
7	Prakash Rewatkar, Madhavi Bandapati and Sanket Goel	Optimized Bucky paper based Anode and Cathode Using Biocompatible Redox Mediator for Enzymatic Biofuel Cells	<a href="#">IEEE Sensors Journal, Vol. 18, No. 13, pp. 5395-5401</a>	2018
8	Chaitali Mankar, Prakash Rewatkar, Mayuri Dhone, Suresh Balpande, Jayu Kalambe, Rajesh Pande, Sanket Goel	Paper based Microfluidic Microbial Fuel Cell to Harvest Energy from Urine	Accepted for publication with the Sensors Letters	2018
9	Haroon Khan, Chul Min Kim, Sung Yeol Kim, Sanket Goel, Prabhat K. Dwivedi, Ashutosh Sharma, Young Ho Kim, Gyuman Kim	Fabrication of an Enzymatic Biofuel Cell with Electrodes on Both Sides of a Microfluidic Channel	Accepted for publication with the International Journal of Precision Engineering and Manufacturing-Green Technology (Springer)	2018
10	Prakash Rewatkar and Sanket Goel	Paper based Membraneless Co-Laminar Microfluidic Glucose biofuel cell with MWCNT fed Bucky Paper Bioelectrodes	Accepted for publication with IEEE Transaction of Nanobioscience	2018
11	Puneeth S B, Sai Akhil Puranam and Sanket Goel	3D Printed Integrated and Automated Electro-Microfluidic Viscometer for Biochemical Applications	Accepted for publication with IEEE Transactions on Instrumentation & Measurement, Aug 2018.	2018
12	Madhavi Bandapati, Prakash Rewatkar and Balaji Krishnamurthy and Sanket Goel	Functionalized and Enhanced HB Pencil Graphite as Bioanode for Glucose - O <sub>2</sub> Biofuel Cell	IEEE Sensors Journal (Accepted)	2018
13	D. Guillen, MRA Paternina, JO Bezar, <b>RK Tripathy</b> , AZ Mendez, RT Olvera, ES Tellez	Fault Detection and Classification in Transmission Lines using PSD Index	IET Generation Transmission and Distribution, 2018	2018
14	LM Satapathy, <b>RK Tripathy</b> , P Das	A Combination of Variational Mode Decomposition and Histogram Equalization for Image Enhancement	National Academy Science Letters, Springer, 2018	2018
15	MRA Paternina, <b>RK Tripathy</b> , AZ Mendez, Daniel Dotta	Identification of Electromechanical Modes using Variational Mode Decomposition	Electric Power System Research, Elsevier, 2018	2018
16	HP Tripathy, Priyabrata Pattanaik, SK Kamilla, DK Mishra, <b>RK Tripathy</b>	A Model based Approach to Validate the Aluminium Nitride Material based Ultrasonic MEMS Transceiver for Temperature Sensing	IET Micro and Nano Letters, 2018	2018
17	<b>S. Chitraganti</b> , S. Aberkane	Stochastic H-infinity control of state dependent jump linear systems with state dependent noise	IET Control Theory & Applications, 2018	2018
18	<b>K. N. Chappanda</b> , M. Tchalala, O. Shekhah, S. Surya, M. Eddaoudi, K. Salama	A Comparative Study of Interdigitated Electrode and Quartz Crystal Microbalance Transduction Techniques for Metal–Organic Framework-Based Acetone Sensors	MDPI sensors	2018
19	Haripriya T and Alivelu M Parimi	<b>“Hybrid Controller Topology for Large Solar PV Installations in High Voltage DC grid Connected Applications”</b>	Electrical Engineering Springer Journal	2018
20	M. T. L. Gayatri, Alivelu M. Parimi	Single Phase PQ Theory Based Control of Active Power Filter for Power Quality Enhancement in DG Connected Microgrid	International Journal of Engineering and Technology	2018

S No	Authors	Title of the Publications	Details of the Journal	Year
21	M.T.L. Gayatri, Alivelu. M. Parimi, A.V. Pavan Kumar	<i>A review of reactive power compensation techniques in microgrids</i>	Renewable and Sustainable Energy Reviews, Elsevier	2018
22	Syed Ershad Ahmed , Santosh Varma and M.B. Srinivas	<i>Improved designs of digit-by-digit decimal multiplier</i>	VLSI Integration, Elsevier	2018
23	Syed Ershad Ahmed and M.B. Srinivas	<i>An Improved Logarithmic Multiplier for Media Processing</i>	Journal of Signal Processing Systems, Springer	2018

### III. Conferences attended/papers presented:

S No	Name of the Faculty	Name of The conference	Title of the paper	Conference date	Venue
1	Souvik Kundu	ICN 2018	Oxide Based Memristor and Its Potential Application in Analog-Digital Electronics	12-13/11/2018	Rome, Italy.
2	Souvik Kundu	ICNSE 2018	Incorporation of Copper for Performance Enhancement in Metal-Oxides Resistive Switching Device and Its Potential Electronic Application	14-15/11/2018	Venice, Italy.
3	Manish Narwaria	IEEE HiPC 2018	Convolutional Neural Networks for Predicting Highest Priority Functional Group in Organic Molecules	17-20 Dec., 2018	Bengaluru, India
4	Sohan Dudala, Puneeth S B, Satish K. Dubey, Sanket Goel	Photonics 2018	Design of Fluorometric Lab-On-Chip Platform for Detection of Nitrite in Water	12-14 Dec 2018	Delhi
14	Runa Kumari	AESPC 2018	Metamaterial loaded Printed Antenna for Unmanned Aerial Vehicle Applications	22-24 Oct. 2018	Bhubaneswar, India
15	Sudha Radhika, Yukio Tamura, Masahiro Matsui	IEEE International conference on Geoscience and Remote Sensing Society, IGARSS 2018	Determination of degree of damage on building roofs due to wind disaster from close range remote sensing images using Texture Wavelet Analysis	22-27 July 2018	Valencia, Spain
17	Amar Kumar Verma, Sudha Radhika, S V Padmanabhan	IEEE International Conference on Recent Advances in Computational Systems, RAICS 2018	Wavelet Based Fault Detection and Diagnosis using Online MCSA of Stator Winding Faults due to Insulation Failure in Industrial Induction Machine	6-8 Dec, 2018	Kerala, India
18	I. V. Vamsi, N. Abhinav, Amar Kumar Verma, and S. Radhika	IEEE International Conference on Computing Communication and Automation, ICCCA 2018	Random Forest Based Real Time Fault Monitoring System for Industries	14-16 Dec, 2018	Greater Noida, India
19	M. T. L. Gayatri, Alivelu M. Parimi	IEEE, 53 <sup>rd</sup> International Universities Power Engineering Conference (UPEC 2018),	Power Quality Improvement of PV-WECS Microgrid Using Active Power Filter in Real-time	Sept. 4-7, 2018	Glasgow, Scotland
20	M. T. L. Gayatri, Alivelu M. Parimi	IEEE, 53 <sup>rd</sup> International Universities Power Engineering Conference (UPEC 2018),	Compensation of Voltage and Current Distortions in Multi Microgrid	Sept. 4-7, 2018	Glasgow, Scotland
21	Vishnu Charan T., Alivelu M. Parimi	4th IEEE International Conference on Electrical Energy Systems (ICEES-2018)	Performance of IPFC in a 400kV Transmission Line	7-9 February	Chennai
22	Srinivasan Rajagopalan,	IEEE ICEES-2018	Optimal Placement of the Interline Power Flow Controller	7-9 February	Chennai

S No	Name of the Faculty	Name of The conference	Title of the paper	Conference date	Venue
	Vishnu Charan Thippana, Alivelu Manga Parimi		using the Bees Algorithm to minimize power loss		
23	Vishnu Charan T., Alivelu M. Parimi	IEEE International Conference for Convergence in Technology (I2CT)	Comparison of Interline Power Flow Controller with Line Reactor and SSSC in a 400kV Transmission Line	7-8 APRIL	PUNE

#### IV. Invited Talks given by BITS faculty:

S No.	Name of the Faculty Member	Institution in which it was delivered / conducted	Duration / Date (DD-MMM-YYYY )
1	Souvik Kundu	ICN 2018, Rome, Italy.	12-11-2018
2	Souvik Kundu	ICNSE 2018, Venice, Italy.	14-11-2018
3	Soumya J	ICT, TU Vienna, Austria	08-11-2018
4	Soumya J	Vasavi College of Engineering, Hyderabad	01-11-2018
5	Soumya J	RCOEM, Nagpur	15-11-2018
6	Soumya J	DLRL, Hyderabad	13-12-2018
11	Sanket Goel	Rajalakshmi College of Engineering, Chennai	18-Dec-18
12	Sanket Goel	RCOEM, Nagpur	16-Nov-18
13	Sanket Goel	CMR Institute of Technology	15-Sep-18
14	Sanket Goel	IEEE Bombay Section, RCOEM, Nagpur	26-Mar-18
15	Sanket Goel	BARC, Mumbai	17-Feb-18
16	Runa Kumari	InCAP-2018, Hyderabad	18-Dec-2018
17	Alivelu M Parimi	SNIST, Hyderabad	June 29, 2018

#### V. Invited talks arranged in the department:

S No	Guest Name	Date	Topic	Guest from
1	Dr. V. S. Rao	3/10/2018	Development of Microelectronics circuits	Hyderabad University

#### VI. Awards and recognitions won by faculty and students:

S.No	Name of the Awardee	Award	Details
1	Souvik Kundu	Best Paper & Presentation	ICNSE 2018, Venice, Italy in 2018.
2	Souvik Kundu	Session Chair	ICNSE 2018, Venice, Italy in 2018.
3	Manish Narwaria	Best Poster Award	IEEE HiPC 2018, Bengaluru, India
4	Manish Narwaria	Winner of Salient360 Grand Challenge	Received first prize of 800 USD at IEEE ICME 2018, Salient360 Grand challenge
5	Sanket Goel	Associate Editor, IEEE Sensors Journal	
6	Rajesh Kumar Tripathy	Received Honorarium of 120 USD from Elsevier	Received Honorarium of 120 USD from Elsevier for reviewing a book proposal.
7	Shaikshavali Chitraganti	Outstanding reviewer Award	Journal of the Franklin Institute, Elsevier, 2018
8	Shaikshavali Chitraganti	Senior member, IEEE	Awarded in 2018
9	Runa Kumari	Session Chair	AESPC 2018, Bhubaneswar, India

**VII. Faculty Development, International Collaboration & Industry Immersion:**

1. Active/ongoing collaboration with Pennsylvania State University and Virginia Tech, USA.
2. Active/ongoing collaboration with NTU, Singapore.
3. Active/ongoing collaboration with BARC Trombay and RRCAT Indore through DAE project.
4. Active/ongoing collaboration with University of Agder, Grimstad, Norway.
5. Active/ongoing collaboration with TU Wien, Austria through DST-OeAD bilateral project.

**VIII. Significant new equipment/experimental facility added during the year:**

1. Solar Simulator & Probe Station.
2. UV CO2 Laser Engraver

**IX. Departmental association/club activities: NA**

I-Navigate Workshop: NA

**X. Major maintenance, renovations or new construction reports: NA****XI. Major equipment acquired during the year: NA**

S No	Name of the Equipment/Software	Lab Name	Cost of the Equipment/Software (in lakhs)
1.	UV CO2 Laser Engraver	MEMS Lab	12 lakhs

**B3.10.7 Department Name: Economics and Finance****Number of faculty members**

Senior Professors, Professors	1
Associate Professors	0
Assistant Professors	11
Lecturers	0
Visiting Faculty	0

Head of the Department : Sudatta Banerjee

Contact details: 040-66303625 Email: sudatta@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: 17

**I. Sponsored Research activities:****(a) Ongoing projects**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Determinants of Women Empowerment and Trickle-Down Effect of the Same on Children's Overall Educational and Health Development: Challenges, Effects and Intervention through Training	Sudatta Banerjee (and Swati Alok)	ICSSR	Rs. 400000/-	1 year
2	Career Persistence of Indian Women Professionals in Information Technology (IT) Sector: Brakes, Accelerators, Challenges and Opportunities	Swati Alok (and Sudatta Banerjee)	ICSSR	Rs. 200000/-	1 year
3	Women's Employment, Interstate Variations and Time-use: A Comparative Study of Bihar and Andhra Pradesh	Joint PI: Sunny Jose (HSS) & Bheemeshwar Reddy A	Azim Premji University	Rs. 11,88,000	2 year

## (b) Projects sanctioned during the year

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Determinants of Women Empowerment and Trickle-Down Effect of the Same on Children's Overall Educational and Health Development: Challenges, Effects and Intervention through Training	Sudatta Banerjee (and Swati Alok)	ICSSR	Rs. 400000/-	1 year
2	Women's Employment, Interstate Variations and Time-use: A Comparative Study of Bihar and Andhra Pradesh	Joint PI: Sunny Jose (HSS ) & Bheemeshwar Reddy A	Azim Premji University	Rs.11,88,000	2 year

## II. Publications:

- Swati Alok, Aman Kabra, Anirudh Mudam, "Predicting the Behavioural Intention to adopt Lean practices: An Empirical Study in the Manufacturing Industry", *International journal of Services and Operations Management (IJOSM)*, 2018, March, Vol. 29, No. 4 pp.557-578.
- Kaushik Bhattacharya and Sunny Kumar Singh, "The Story of Currency in Circulation: Is it back to Square one after Demonetisation?", *Economic and Political Weekly*, 2018, March, Vol. 53, No. 13.
- C Hussain Yaganti & Yash Manipuria, "Exchange Rate Forecast Enhancement using Sentiments from Google Trends", *The IUP Journal of Financial Risk Management*, 2018, June, Vol. XV, No. 2, pp. 7-21.
- Rishi Kumar, "Different Approaches to Identify the Poor: Do They converge?", *Social Indicators Research*, 2018, September, Vol. 139, No. 2, pp. 589-610.
- C Hussain Yaganti, "An Analysis of time to maturity and volume effects on Futures returns Volatility: Agricultural Commodity Futures Markets", *Indian Journal of Agricultural Marketing*, 2018, October, Vol. 32, No. 2, pp. 21-27.
- Mini P. Thomas, "Impact of Services Trade on Economic Growth and Current Account Balance: Evidence from India", *Journal of International Trade and Economic Development*, 2018, November.
- Jose, Sunny, Bheemeshwar Reddy, A., & Agrawal, M., "Child Undernutrition in India Assessment of Prevalence, Decline and Disparities", *Economic and Political Weekly*, 2018, Dec, Vol. 53, No. 48, pp. 63-70.
- Archana Srivastava, Mohit Jain and Rajat Seth, Chapter: "Effect of Political Relations between India and China on Bilateral Trade: A Sentimental Analysis", in the Book: "Contemporary Issues on Globalization & Sustainable Development", Serial Publishers, New Delhi, 2018, May.
- Swati Alok, Chapter: "Vignette Methodology: An Illustration from Conflict Research" in the Book: "Qualitative Techniques for Workplace Data Analysis", IGI Global, USA, 2018, July.
- Rishi Kumar, Chapter "Gender Analysis of Nutrition in Telangana" in the Report: "Telangana Social Development Report, 2018, Gender, Access and Well Being", Department of Planning, Government of Telangana, Council for Social Development, Hyderabad, 2018

## III. Conferences attended/papers presented:

- Mini P. Thomas: Services-trade led Growth in India: A balance of payments approach in International Conference on Development Challenges in India, Stella Maris College, Chennai, 30-31 January, 2018
- Rishi Kumar: Factors behind Use of Institutional Delivery in India: An investigation in National seminar on Status of Education, Health and Environment in India, Kakatiya University, Warangal, Telangana, February 16-17, 2018
- C Hussain Yaganti: Exchange Rate Forecast Enhancement using Sentiments from Google Trends in 54th Annual Conference of the Indian Econometric Society (TIES), Shri Mata Vaishnodevi University, Jammu, India, 7-9 March, 2018
- Thota Nagaraju: The Determinants of Commercial Banks Profitability In India in 54th Annual Conference of the Indian Econometric Society (TIES), Shri Mata Vaishnodevi University, Jammu, India, 7-9 March, 2018



5. Rishi Kumar, Shravanth Mandava and GV Sandeep: Vocational Training in India: Determinants of Participation and Effect on Wages in 54th Annual Conference of the Indian Econometric Society (TIES), Shri Mata Vaishnodevi University, Jammu, India, 7-9 March, 2018
6. Sudatta Banerjee, Difference among High and Low Performers in Schools in 54th Annual Conference of the Indian Econometric Society (TIES), Shri Mata Vaishnodevi University, Jammu, India, 7-9 March, 2018
7. Bheemeshwar Reddy A: Who Marries Whom in India? Changes in Educational Assortative Marriage, 1983–2012, in 2018 Annual Meeting, Population Association of America, Sheraton, Denver, USA, 26-28 April, 2018
8. Mini P. Thomas and Kapil Bishnoi: International Trade between India and Brazil: Study into the Emerging Pattern and its Determinants in 28th Annual Conference of International Trade and Finance Association Beijing, China, 23-25 May, 2018
9. Sudatta Banerjee, Effect of Quality Composition of Human Capital on Economic Growth. A study of the Indian states in 2018 RSAI World Congress, BITS Pilani, KK Birla Goa Campus, India, 29 May - 1 June, 2018
10. Swati Alok, Sudatta Banerjee and Srujana G.: Determinants to build a more inclusive women talent pipeline: A study among IT career persistent women from Hyderabad, India in International Conference on Gender, Feminist and Women's Studies, ITAR, Amravathi, India, 3 June, 2018
11. Swati Alok and Rishi Kumar: Determinants of conflict style and its variation across North & South Indians: Role of Cultural and Individual dimensions in 4th Singapore international conference on social science and humanities (ICSSH), Nanyang Technological University (NTU), Singapore, 12-13 June, 2018
12. Swati Alok, Sudatta Banerjee and Swati Singh, Career Identity and Career Commitment, mediating role of Career hope and optimism: Issues of career sustainability for women employees in IT Sector in International Conference on Sustainable Human Resource Management, School of Management Studies, University of Hyderabad, 1 November, 2018
13. Rishi Kumar and Supriya Lakhtakia: Do empowered women have healthy children: An investigation into women empowerment and stunting using NFHS IV data, in Towards Improving Nutrition Outcomes in India, Conference organized by SPANDAN research initiative, IGIDR, Mumbai, 8-10 November, 2018
14. Sunny Kumar Singh: Does Increase in Central Bank Independence reduce Corruption? Evidence from a Panel of Countries in 88th Annual Conference, Southern Economic Association, Washington DC, USA, 18-20 November, 2018
15. Sunny Kumar Singh: Does Corruption effect Financial Risk? A Firm level Evidence in 88th Annual Conference, Southern Economic Association, Washington DC, USA, 18-20 November, 2018
16. Ajay Prasad Adepur, Niranjana Swain and C.H. Yaganti: Financial Markets Integration in India: An empirical Analysis in PANIITIMC2018, IIT Roorkee, 30 November – 2 December, 2018
17. Sonia Antil, Niranjana Swain and K. Ramesha: An investigation into indicators impacting financial inclusion among small and marginal farmers in India: A case study of Punjab, Haryana and Rajasthan in PANIITIMC2018, IIT Roorkee, 30 November – 2 December, 2018.
18. Sonia Antil, Niranjana Swain and K. Ramesha: Drivers of financial inclusion among small and marginal farmers in India: An empirical investigation in 12th ISDSI Conference, SPJIMR, 27 December- 30 December, 2018

#### IV. Invited Talks given by BITS faculty:

1. Thota Nagaraju: Management Development Program- Lecture on Managerial Economics delivered at Vizag Steel (RINL Ltd), March 21-22, 2018
2. Sunny Kumar Singh: Management Development Program- Lecture on Macroeconomic Environment for Managers delivered at Vizag Steel Plant (RINL), March 21-22, 2018
3. Bheemeshwar Reddy A: Orientation Workshop on Social Policy, Rajiv Gandhi National Institute of Youth Development (RGNIYD), Sriperumbudur, Lecture delivered on Evidence based policy analysis, 2-4 May, 2018
4. Bheemeshwar Reddy A: FLAME University, Pune, Lecture delivered on Chip off the Old Block: Changes in Intergenerational Mobility in India, 1983–2012, 16 November, 2018
5. Bheemeshwar Reddy A: The Pre-Conference workshop of 16th IASSH Conference "Health, Well-being and Regional Development: Emerging Issues and Challenges", Lecture delivered on Introduction to R

in the Centre for the Study of Regional Development, Jawaharlal Nehru University (JNU), New Delhi, 7-12th December, 2018

#### V. Invited talks arranged in the department:

1. Prof. Padmini Swaminathan, Visiting Professor, Council for Social Development, Hyderabad, gave a talk on Capitalist Globalization: Consequences for Labour and Environment on 29/08/2018
2. Prof. Naresh Kumar Sharma, Dean, School of Economics, University of Hyderabad, gave a talk on Gandhian Economic Ideas - An Appraisal of Foundational Concepts in Economics on 29/09/2018
3. Prof. Badri Narayan Rath, Associate Professor of Economics, IIT Hyderabad, gave a talk on Export Diversification, Economic Growth and Convergence: Evidence from Cross-Country Analysis on 12/11/2018
4. Dr. Venkataramana M, Principal Data Scientist conducted a Workshop on R, 17/11/18- 18/11/18

#### VI. Awards and recognitions won by faculty and students

1. Bheemeshwar Reddy A.- Travel award from the Population Association of America to attend the Annual Meeting of the Population Association of America, April 26 to April 28, 2018, in Denver Colorado, USA.
2. Durgesh Chandra Pathak: Certificate of excellence in Reviewing- in recognition of an outstanding contribution to the 2018 Global Conference on Business and Economics organized by the Association of North America Higher Education International.
3. Sudatta Banerjee: Certificate of excellence in Reviewing- in recognition of an outstanding contribution to the 2018 Global Conference on Business and Economics organized by the Association of North America Higher Education International.

#### VII. Faculty Development, International Collaboration & Industry Immersion

Archana Srivastava completed the following courses:

1. Complete STATA workflow and Tips online (offered by Udemy for 9.5 hours)
2. Introduction to STATA – Hands on (offered by Udemy for for 2.5 hours)
3. Entrepreneurship in Emerging Economies (offered by Harvard Edex)
4. Trade and Poverty offered by UNCTAD Vi
5. Non Tariff Measures offered by UNCTAD Vi

#### VIII. Significant new equipments/experimental facility added during the year: Bloomberg Subscription

#### IX. Departmental association/club activities:

1. Six Sigma Workshop, 15-16, 22-23 September, 2018
2. Stocks and trading workshop, By Zerodha, 29 October, 2018
3. Credit Suisse CRO Grad Rotation Program, 2 November, 2018
4. Organised a contingent to ISB's finance fest, ARTHA'18
5. Conducted Rajagiri National Business Quiz
6. Arranged a talk and demo of the NSE certified AlphaBeta app by one of their executives Mr. Varun Mundra
7. Organised the event COURTROOM, during ATMOS
8. Started: Get to Know Your Faculty: With the special edition "Chamber Consultation Hour", Economics Editorial Board is glad to bring an insider on our professors' work and their journey to research.

#### X. Major maintenance, renovations or new construction reports:

#### XI. Major equipments acquired during the year:

### B3.10.8 Humanities and Social Sciences

Number of faculty members: 13

Senior Professors, Professors	0
Associate Professors	3
Assistant Professors	10
Lecturers	0
Visiting Faculty	0

Head of the Department : Prof. Sunny Jose

Contact details: 040-66303670 Email: sunny@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: 8

i. Sponsored Research activities:

(a) Ongoing projects

S. No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lacs)	Duration
1	Women's Employment, Interstate Variations, and Time-use: A Comparative Study of Bihar and Andhra Pradesh	Prof. Sunny Jose	Azim Premji University	Rs. 11, 88, 000	20 months
2	Identification of accents	Dr. Pranesh Bhargava	OPERA	2 Lakhs per year	2 years
3	Alternative ways of understanding ecological conservation practices to enable justice for all	Dr. Lavanya Suresh	NALSAR, Hyderabad	Rs. 2,95,000	8 months
4	Resistance to the Western Ghats Conservation and Undercurrents: A study of the people's protest and the role of the local bodies in Idukki, Kerala	Dr. Lavanya Suresh	Centre for Development Studies (CDS), Kerala	Rs. 3,15,000	16 months
5	Political Ecology	Dr. Lavanya Suresh	OPERA	Rs.3.60 Lacs per year	5 years
6	Measuring Segregation in Hyderabad: Introspecting Multiple Indexes and Multiple Patterns	Dr. Suchismita Satpathy	RIG	Rs.2 lacs	2 years
7	A Study of Disaster Management Plans in India	Dr Biswanath Dash	RIG	Rs.2 Lacs	2 years
8	An Evaluative Study of ESP Programmes in India	Dr. Santosh Mahapatra	RIG	Rs.1.7 Lacs	2 Years

(b) Projects sanctioned during the year: 3

ii. Publications:

Book

- Nadkarni, M. V., Sivanna, N., & Suresh, Lavanya., (2018). *Decentralised Democracy: Gandhi's Vision and Indian Reality*. New York: Routledge.

Book Chapters

- Santosh Mahapatra. Using CEFR-based bilingual rubrics to improve the writing ability of ESL learners: A multiple-case study. In *Explorations: Teaching and Learning English in India Issue 10: Using inclusive practices and multilingual approaches (2)*, edited by Brian Tomlinson and Andy Keedwell, published by British Council, 2018

### Papers Published

- Suchismita Satpathy. Mapping Caste-based Segregation Using Multiple Indexes: A Study of Pune City, India. *Nagarloka*, Indian Institute of Public Administration, Vol. XLX, Part 1, January-March 2018, Page 1-24, ISSN-0027-7584
- Santosh Mahapatra & Sunita Mishra. Articulating identities – the role of English language education in Indian universities. Accepted for publication in *Teaching in Higher Education* (doi: 10.1080/13562517.2018.1547277)
- Santosh Mahapatra. Peers, teachers and coping strategies of Dalit students in higher education: A qualitative study. Accepted for publication in *International Journal of Inclusive Education* (doi: 10.1080/13603116.2018.1515269)
- **Jayesh, A. K. Forthcoming.** "Time, Philosophy, and Literature." *Journal of Indian Council of Philosophical Research*. doi:10.1007/s40961-018-0163-9.
- Sunny Jose, Bheemeshwar Reddy A and Mayank Agrawal "Child Undernutrition in India: Assessment of Prevalence, Progress and Disparities", *Economic and Political Weekly*, Vol 52, No. 48, (December 8, 2018) pp.63-70.
- Patnaik, Anhiti. "The Feral Feminist Aesthetic of Andrea Arnold's *Wuthering Heights*," *The Confidential Clerk* Vol. 4 (Fall 2018)

### Book review

- Patnaik, Anhiti. "Review of Joseph Bristow and Rebecca N. Mitchell's *Oscar Wilde's Chatterton: Literary History, Romanticism, and the Art of Forgery*," *Victorian Network* Vol 12 Special Issue "Forgery and Imitation" (Winter 2018)

### iii. Conferences attended/ papers presented:

- Suchismita Satpathy participated in DST-NWO Sandpit - Urban Water Systems: towards sustainable and integrated urban water management systems in fast-growing secondary cities, held in Delhi, India during November 26-30, 2018, by the Department of Science and Technology, India in collaboration with Netherlands Organization for Scientific Research.
- Suchismita Satpathy presented a paper in EWIS workshop on Aesthetic Cities: Everyday, International, Urban, titled "**What architecture symbolises** in urban space: a study of Bhubaneswar, India, during June 6<sup>th</sup>-9<sup>th</sup> 2018, at Groningen University, Netherlands
- Suchismita Satpathy presented a paper, **Can Caste-based Segregation and Access to Basic Amenities be Linked?: A Study of the Pune City**, at "In Otto Königsberger's footsteps –encouraging collaboration between cities and universities" Pune, 11th May 2018, Indian Institute of Science Education and Research, Pune.
- **Suchismita Satpathy attended a Symposium on "Rethinking Globalisation: Economy and Development"** Bengaluru, Karnataka on June 30, 2018.
- Santosh Mahapatra presented a paper, Assessment in an English for Engineering Course: A Case Study, at **Two-Day International Conference on 'Inclusive and Equitable Quality Education in ELT'**, organized jointly by SSN College of Engineering and Anna University in Chennai, October 26-27, 2018.
- Santosh Mahapatra presented a paper, Impact of teachers' CLAL on students' performance, at 52nd Annual International IATEFL Conference & Exhibition, Brighton, UK, April 9-13, 2018.
- **Dr. Lavanya Suresh presented a paper titled "The Political Economy of Decentralisation and Forest Resource Management (FRM): A Study of the Effectiveness of Decentralised FRM Institutions"** at the Asia Region Biennial International Association Study of the Commons Conference on "**Redefining Diversity and Dynamism of Natural Resource Management in Asia**", on 13-16, July, 2018, AIT, Thailand.
- **Dr. Lavanya Suresh presented a paper titled "Ecological Romanticism and Farmer's Protest in Tamil Nadu, India: The Bull and The River"** at the international conference on **Authoritarian Populism and the Rural World**, on 17-18 March, 2018. The conference was organized by Emancipatory Rural Politics Initiative (ERPI) at the International Institute of Social Studies (ISS) of Erasmus University, The Hague.
- **Maya Vinai presented a paper titled Defying the 'Difference': Understanding the Scamper for Space** amongst the Migrant Middle class in Mumbai through literary representations in Universiti Sains Malaysia (USM), Penang in the ICL 2018 on 26th July 2018.

- Kopal Khare and Sunny Jose presented a paper “Closing the Access Loop: Situating Post-Infrastructural Assurance Circumstances in Rural Sanitation” at the 8<sup>th</sup> International Conference on Sustainable Waste Management, organised by International Society of Waste Management, Air and Water (ISWMAW) during 22-25 November, 2018 at Acharya Nagarjuna University, Guntur, Andhra Pradesh. Received the IConSWM-Springer Excellence Paper Award 2018.

iv. **Invited Talks given by BITS faculty:**

- Dr. Suchismita Satpathy was invited to deliver a talk on "Digitalized caste practices in urban India: a discourse analysis" at PG department of Sociology, Rourkela Government college, Odisha on December 29, 2018.
- Dr. Suchismita Satpathy delivered the keynote address in the seminar - Caste, Casteism and Caste Politics in India (December 27-28, 2018) at Rourkela Government College, Odisha.
- **Dr. Suchismita Satpathy delivered the keynote address in the Symposium on “Globalisation and Governance Issues” at Gandhi Bhavan, Bengaluru, Karnataka on August 11, 2018 organised by AIA, STPI and Bengaluru University.**
- Dr. Suchismita Satpathy was an external examiner for six Masters Dissertations in Public Policy and Governance of the School of Public Policy, Tata Institute for Social Sciences, Hyderabad Campus on 6th April, 2018
- Dr. Suchismita Satpathy was an external examiner of 16 Masters Dissertations in Sociology from the Post Graduate Department of Sociology, Government Autonomous College Rourkela, Odisha on 31st December, 2018
- Dr. Santosh Mahapatra conducted an invited one-day workshop titled "Application of Technology for Teaching and Learning of English Language Skills", at Vignan's Foundation for Science, Technology & Research, Guntur, Telangana, for English language teachers (December 22, 2018).
- Dr. Santosh Mahapatra conducted a session titled "CPD through ICT" (Continual Professional Development through Information and Communication Technology) - Invited by SCERT (State Council of Educational Research and Training), Telangana, for the government secondary school English teachers in Telangana (September 27, 2018).
- Dr. Santosh Mahapatra conducted two invited workshops titled "How to win Plagiarism" and "Using Technical tools in Writing" for college teachers and researchers at GNIT, Hyderabad (July 4, 2018).
- Dr. Santosh Mahapatra conducted two invited workshops titled "Common Errors in English: Identifying, Analysing, and Rectifying" and "Skills to improve Proficiency in English", for college teachers at Aurora's Technological and Research Institute, Hyderabad (June 28, 2018).
- Dr. Santosh Mahapatra conducted an invited workshop titled "Assessment for Learning: Making Assessment Useful, Learner-friendly and Innovative", for college teachers at Anurag Group of Institutions, Hyderabad (June 4, 2018).
- Dr. Santosh Mahapatra conducted an invited one-day workshop titled "From Researching to Publishing: A Re-walk 2.0", for the faculty and doctoral students at Vellore Institute of Technology, Andhra Pradesh (March 24, 2018).
- Dr. Santosh Mahapatra co-conducted an invited two-day workshop (along with two other resource persons) for teachers of St. Xavier's College of Engineering, Nagarcoil, Tamilnadu (March 2-3, 2018).
- Dr. Lavanya Suresh was invited to deliver a **lecture on ‘Strategies to improve the political participation of women in local, district, and state levels’ by the Planning Department, Government of Andhra Pradesh and National Foundation for India, who co-hosted a conclave on “Improving economic participation of women in Andhra Pradesh: Towards achieving SDG 5”, on 19th and 20th of December 2018, at Hotel Fortune Murali Park, Vijayawada, Andhra Pradesh.**
- **Dr. Lavanya Suresh was invited as a resource person to the Urban Action School on ‘Urban Commons and Right to the City’ on the 25th of November, 2018, organized by Action Aid at the Institute of Public Enterprises, Osmania University, Hyderabad. She conducted a one-day session on ‘Urban Political Ecology: Disasters and Development’.**
- Dr. Lavanya Suresh was invited by the Centre for Development Studies, Thiruvananthapuram to speak at the national seminar on “Persisting Pollution in Periyar: Industrialisation and Limits to Environmental Governance” held on 12th Nov, 2018.
- Dr. Lavanya Suresh was invited by the NALSAR University of Law, Hyderabad to conduct a two-day workshop on ‘Research Design’ for their LLM and PhD students. The workshop was held on the 26th and 27th of Oct, 2018.

- Dr. Lavanya Suresh was invited by the Department of Political Science, Hyderabad Central University to deliver a lecture on 'Environmental Resource Governance' on 11th September, 2018
  - Dr. Lavanya Suresh was invited by the Kerala Institute of Local Administration (KILA) to be a part of the National Conference on 'Twenty-Five years of Panchayati Raj' held on 24th and 25th April 2018 in Trivandrum, Kerala.
  - Dr. Lavanya Suresh was invited to deliver a talk on 'Understanding Decentralisation Through a Natural Resource Lens: A Study in The State of Tamil Nadu, India', on 6th April, 2018 at IIT Hyderabad to the Department of Liberal Arts.
  - Dr. Lavanya Suresh was invited to deliver a lecture on 'Gender and environmental sustainability 'on 3rd April, 2018 at the Graduate Seminar for the School of Public Policy, Tata Institute for Social Sciences, Hyderabad Campus.
  - Dr. Lavanya Suresh was external examiner for six Masters Dissertations from the School of Public Policy, Tata Institute for Social Sciences, Hyderabad Campus on 3rd April, 2018.
  - Dr. Lavanya Suresh was on the panel of judges for the second edition of Construe the Constitution Socratic Dialogue, . organized as a part of Hyderabad Literature Festival (HLF), on 26th Jan 2018
  - Biswanath Dash was invited for a talk on 'Coastal Resilience" and on "Last Mile Connectivity" at National Institute of Disaster Management, South Campus Bapatala, Andhra Pradesh on 6th and 7th Feb. 2018.
- v. Invited talks arranged in the department:
- On 17th Jan, 2018, Dr. Pankaj Sekhsaria, Senior Project Scientist at the Centre for Policy Research, Dept of Humanities and Social Sciences, IIT-Delhi delivered a talk on "Islands in Flux- the Andaman and Nicobar Story".
  - On 14th Feb, 2018, Dr. Anindita Majumdar, Assistant Professor, Department of Liberal Arts, IIT, Hyderabad delivered a talk on 'Transnational Commercial Surrogacy and the (Un)Making of Kin in India'.
  - Talk titled - Contemporary Indian Cities and 'Smart' Growth Models: Some Reflections, on 28th September 2018 by Prof. Purendra Prashad, from the University of Hyderabad.
  - On 8th August, 2018, Mr. Sidharth Chauhan, Assistant Professor at the National Academy of Legal Studies and Research (NALSAR), Hyderabad delivered a lecture on Understanding The Capacity Constraints of The Indian Judicial System
  - On 5th September, 2018, Dr. Gayatri Nair, Assistant Professor at TISS Hyderabad, The Other Half of the Pink Revolution; Koli Women, Labour And Politics in the Fisheries of Mumbai
  - On 24th October, 2018, Dr. Aalok Khandekar, Assistant Professor of Anthropology/ Sociology at Department of Liberal Arts, IITH delivered a lecture on Air Pollution Governance in 6+ Cities: Findings, Theory, Tactics
- vi. Awards and recognitions won by faculty and students – NA -
- vii. Faculty Development, International Collaboration & Industry Immersion – NA -
- viii. Significant new equipment/experimental facility added during the year: - NA -
- ix. Departmental association/club activities:
- The Journal Club, BITS Pilani Hyderabad in collaboration with the HSS Department as a part of the Gender Champion initiative hosted the Human Library event on November 3<sup>rd</sup>, 2018 in BITS Pilani Hyderabad Campus.
  - Dr. Pranesh Bhargava and Dr. Suchismita Satpathy were invited by Sanskrit and Foreign Languages Club, BITS Hyderabad as panel to discuss on language and living abroad on 12th November 2018.
  - Santosh Mahapatra was invited by Academic Counselling Cell to conduct a session on writing SOPs, on September 26, 2018.
  - Dr. Lavanya Suresh is faculty advisor for Entrepreneurial Action for Others Creates a Better World For Us all (ENACTUS)
- x. Major maintenance, renovations or new construction reports: - NA -
- xi. Major equipment acquired during the year: - NA -

**B3.10.9 Mechanical Engineering Department****Number of faculty members**

Senior Professors, Professors	3
Associate Professors	4
Assistant Professors	16
Lecturers	1
Visiting Faculty	0

**Head of the Department :** Prof. Amit Kumar Gupta

**Contact details:** +91 40 66303518 **Email:** akgupta@hyderabad.bits-pilani.ac.in

**Number of PhD Scholars:** 41

**I. Sponsored Research activities: -****(a) Ongoing projects**

S No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Formability Study of Inconel 625 alloy at Elevated Temperatures for Aerospace Applications	Dr. Nitin Kotkunde	DST	30	2017-2020
2	Application of topology optimization to enhance energy efficiency and performance of industrial manipulator	Dr. Arshad Javed	DST	29.00	2017-2020
3	Study of lubrication method for enhanced surface finish and reduced draw load on cold draw steel tubes	Prof. A. K. Gupta (Co PI), Prof. S. P. Regalla (Co PI)	Tubes Investment India Ltd.	27.5	2017-2020
4	"Development of Metamaterial Base Support" for isolating vibrations	Dr. Sabareesh	DRDO	13.80	2017-2019
5	Cryogenically-Conditioned Micro and Nanoencapsulated Phase Change Material Slurries for Cool Thermal Energy Storage Applications	Dr. Parameshwaran R	DST	30.00	2017-2020
6	Novel casting approach to improve quality of aluminum alloy casting	Prof. N. S. K. Reddy	DRDL	9.85	2017-2020
7	Simulation and Modelling to Minimize Porosity Level in Aluminium Castings by using Ultrasonic Stir Casting	Prof. N. S. K. Reddy	L & N Structural Engineers (P) LTD	8.03	2016-2019
8	Studies on remaining useful life prediction considering multi-component failures in a wind turbine using prognostic health monitoring techniques	Dr. Sabareesh G. R	DST	26.04	2016-2019
9	Hydrogen Storage in Mesoporous Polymer Derived Ceramics for Automotive Application	Dr. Sujith R	DST	42.38	2016-2019
10	Enhancement of Mechanical Properties of Ti-6Al-4V using Constrained Groove Pressing and Heat Treatment	Prof. A. K. Gupta	DRDO (ARMREB)	45.6	2016-2019
11	Cryogenically-conditioned micro and nanoencapsulated phase change material slurries for cool thermal energy storage applications	Dr. R. Parameshwaran	DST-SERB ECR	27.76	2017-2020
12	Formability study of inconel 625 alloy at elevated temperatures for aerospace applications	Dr. Nitin Kotkunde	DST-SERB ECR	31.43	2017-2020

S No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
13	Application of topology optimization to enhance energy efficiency and performance of industrial manipulator	Dr. Arshad Javed	DST-SERB ECR	29	2017-2020
14	Development of meta material base support for isolating vibration	Dr. Sabareesh GR	DMDE, DRDO	13.8	2017-2018
15	Novel casting approach to improve quality of aluminum alloy casting	Prof. NSK Reddy	DRDL, DRDO	9.85	2017-2020

\* Financial support for laboratory experiments, international travel, and overseas stay in china to conduct experiments

(b) Projects sanctioned during the year: -

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Heat Transfer Enhancement Study of Li-ion Battery Pack (Phase-1)	Prof. Jeevan Jaidi	HBL Power Systems Ltd., Hyderabad	5.31	2018 (6 Months)
2	Automated Ultraviolet-C Sterilization Robot	Dr Arshad Javed	BIRAC	15	2018 (6Months)
3	Design and development of an automated flow calibration system for fuel and oxidizer injectors reaction control system.	Dr. Sabareesh GR	DRDO, CAS_CARS	9.32	2018-2020
4	"Design and development of an automated flow calibration system for fuel and oxidizer injectors reaction control system	Prof SS Deshmukh	DRDO, CAS	10	2018-2020
5	Studies on wind resistant design for proposed LIGO INDIA OBSERVATORY	Dr. Sabareesh GR	IUCAA	44.81	2018-2021
6	Development of image processing based portable device to measure surface strains in sheet metal forming	Dr Kurra Suresh	DST	17.24	2018-2021
7	Sustainable technological solutions for energy efficiency in jaggery industry (STEEJ)	Dr Srinivas M	RAE	42.81	2018-2020

## II. Publications:

1. Madhavi B., and Jeevan Jaidi. Influence of Strain Hardening Behaviour in Friction Stir Welded Joints of Aluminium-alloy Plates Materials Today: Proceedings International, 2018.
2. R Sujith, P K Chauhan, J Gangadhar, A Maheswari "Graphene nanoplatets as nanofillers in mesoporous silicon oxycarbide polymer derived ceramics" Scientific Reports (Nature) International, November 2018.
3. V.N. Balavignesh, G. Bharadwaj, G.R. Sabareesh, I. Vamsi "Comparison of conventional method of fault determination with data-driven approach for ball bearings in a wind turbine gearbox" International Journal of Performability Engineering International, March 2018.
4. G.R. Sabareesh, Shuyang Cao, Jin Wang, Masahiro Matsui, Yukio Tamura, "Effect of building proximity on external and internal pressures under tornado-like flow Wind and Structures" International March 2018.
5. P.K. Penumakala, A.K. Nallathambi, E. Specht, U. Urlau, D. Hamilton, C. Dykes, "Influence of process parameters on solidification length of twin-belt continuous casting Applied Thermal Engineering International February 2018.
6. P.K. Penumakala, A.K. Nallathambi, E. Specht, U. Urlau, D. Hamilton, C. Dykes, "Feasibility study of continuous casting of steel in twin-belt caster Metallurgical and Materials Transactions". International November, 2018.



7. Madan Mohan Reddy Nune, Vemula Adithya, and Kiran C.P. "Experimental investigation on turning turbine blade material AISI 420 SS (X20 Cr13 alloy) under different cutting fluid conditions" *International Journal of Current Engineering Research International*, April 2018.
8. M.Gayatri Vineela, Abhishek Dave, Phaneendra Kiran Chaganti, "Artificial Neural Network based Prediction of Tensile Strength of Hybrid Composites". *Materials Today: Proceedings International* October, 2018.
9. V. Venkateswara Rao, R. Parameshwaran, V. Vinayaka Ram, "PCM-mortar based construction materials for energy efficient buildings": A review on research trends *Energy and Buildings International* January, 2018.
10. Ankit Moldgy, R. Parameshwaran, "Study on thermal energy storage properties of organic phase change material for waste heat recovery applications" *Materials Today: Proceedings International*, August 2018.
11. S. P. Datta, P. K. Das, S. Mukhopadhyay, "An optimized ANN for the performance prediction of an automotive air conditioning system" *International Journal of Science and Technology for the Built Environment International*, October 2018.
12. K Limbadri, Swadesh Kumar Singh, Kosaraju Satyanarayana, AK Singh, A Maruthi Ram, Mina Ravindran, KV Mani Krishna, M Chaitanya Reddy, Kurra Suresh, "Orientation-Dependent Tensile Flow Behavior of Zircaloy-4 at Room Temperature Metallography, Microstructure, and Analysis *International* July 2018.
13. K Suresh, P Kumar, A Priyadarshini, N Kotkunde, "Analysis of formability in incremental forming processes" *Materials Today: Proceedings, International*, September, 2018
14. Satya Suresh, V.V.N., Regalla, S.P. & Gupta, A.K., "Optimum parameters to minimize weld line movement in the warm forming of tailor-welded blanks". *Journal of Brazilian Society of Mechanical Sciences and Engineering, International*, April, 2018.
15. Swagatika Mohanty, Srinivasa Prakash Regalla, Daseswara Rao Y.V. "Investigation of influence of part inclination and rotation on surface quality in robot assisted incremental sheet metal forming (RAISF)". *CIRP Journal of Manufacturing Science and Technology, International*, August, 2018
16. Satya Suresh V. V. N., Srinivasa Prakash Regalla and Amit Kumar Gupta, "Minimization of weld line movement in heat assisted forming of tailor welded blanks". *Proceedings of IMechE, Part C: Journal of Mechanical Engineering Science, International*, November, 2018
17. Sivakumar Ramalingam, Srinivasa Prakash Regalla, "Integrated Prognostics Module for Real-time Condition Monitoring of an Automated Manual Transmission (AMT) Gearbox and Clutch Systems". *International Journal of COMADEM, International*, October, 2018.
18. Josyula, Sravan Kumar, and Suresh Kumar Reddy Narala, "Study of TiC particle distribution in Al-MMCs using finite element modeling". *International Journal of Mechanical Sciences, International*, April, 2018
19. Jadhav, Pavandatta M., and Narala Suresh Kumar Reddy, "Wear behavior of carbide tool coated with Yttria-stabilized zirconia nano particles". *IOP Conference Series: Materials Science and Engineering, International*, May 2018.
20. Paturi, Uma Maheshwera Reddy, Harish Devarasetti, David Abimbola Fadare, and Suresh Kumar Reddy Narala. "Application of Artificial Neural Network and Response Surface Methodology in Modeling of Surface Roughness in WS2 Solid Lubricant Assisted MQL Turning of Inconel 718". *IOP Conference Series: Materials Science and Engineering, International*, May, 2018.
21. Regalla, Srinivasa Prakash, V. Krishnan Anirudh, and Suresh Kumar Reddy Narala. "Tribological performance of Zinc soft metal coatings in solid lubrication". *IOP Conference Series: Materials Science and Engineering, International*, May, 2018.
22. Paturi, Uma Maheshwera Reddy, Harish Devarasetti, and Suresh Kumar Reddy Narala, "Application of Regression and Artificial Neural Network Analysis in Modelling of Surface Roughness in Hard Turning of AISI 52100 Steel". *Materials Today: Proceedings, International*, March, 2018.
23. Uday Kumar, A., Javed, A., & Dubey, S. "Material Selection for Microchannel Heatsink: Conjugate Heat Transfer Simulation". *IOP Conference Series: Materials Science and Engineering, International*, May, 2018.
24. Ruchik Mishra & Arshad Javed. "ROS Based Service Robot Platform". *IEEE Conference Publication, International*, June, 2018.

25. Satya Suresh V.V.N., Regalla S.P., Gupta A.K, "Minimization of weld line movement in heat-assisted forming of tailor welded blanks" *Journal of Mechanical Engineering Science (iMechE Part C)*, International, 2018.
26. Sharma V., Namburu S.A.S., Lalwani P., Sagar C.K., Gupta A.K, "Constitutive modelling and processing map analysis of tungsten heavy alloy (92.5 W-5.25Ni-2.25Fe) at elevated temperatures". *International Journal of Refractory Metals and Hard Materials*, Vol. 76, p.168-179, International, 2018
27. Satya Suresh V.V.N., Regalla S.P., Gupta A.K. "Optimum parameters to minimize weld line movement in the warm forming of tailor-welded blanks". *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, Vol. 40 (4), International, 2018.
28. Abdul Wahed Mohd, Amit Kumar Gupta, Nitin Kotkunde. "Development of Processing Map for Superplastic Deformation of Ti-6Al-4V Alloy". *Technical Paper Publication. IMECE2018-8863*, International, 2018
29. Abdul Wahed Mohd, Amit Kumar Gupta, Nitin Kotkunde, "Determination of Johnson Cook Material Model Constants and Their Influence on Machining Simulations of Tungsten Heavy Alloy". *Technical paper publication IMECE2018-88270.*, International, 2018.
30. Abdul Wahed Mohd, Amit Kumar Gupta, Nitin Kotkunde, "Effect of Constrained Groove Pressing on Mechanical Properties of Nitinol Alloy". *Technical Paper Publication. IMECE2018-87295*, International, 2018.

### III. Conferences attended/papers presented:

1. V. Vidhu Kiran, V Bhuvanesh, Pawan Kumar Chauhan, Piyush Lalwani, Vaibhav Sharma, Siva Prasad AVS, R. Sujith, "Hydrogen adsorption in graphene sheets: Experimental investigation and numerical simulations". *12th International Conference on Ceramic Materials and Components for Energy and Environmental Applications*, NUS Singapore. International, July, 2018.
2. I.Vamsi, G.R. Sabareesh, Vaibhav Sharma, "Integrated Vibro-acoustic analysis and empirical mode decomposition for fault diagnosis of gears in a wind turbine". *2nd International Conference on Structural Integrity and Exhibition 2018*, DMRL, Hyderabad, International, Aug, 2018
3. Sreeram Rajesh, K. Shruti, G.R. Sabareesh, P.N. Rao, "Study of Interference effects on Wind Turbine Structures". *7th International and 45th National Conference on Fluid Mechanics and Fluid Power*, IIT Bombay. International, Dec, 2018.
4. K. Shruti, Sreeram Rajesh, G.R. Sabareesh, P.N. Rao, "Study of Interference effects on Chimneys". *International Conference on Recent Advances in Fluid and Thermal Sciences*, BITS-Pilani, Dubai, International, Dec, 2018
5. K. Shruti, G.R. Sabareesh, P.N. Rao, "Mitigating wind induced disasters on a group of buildings and cooling towers due to interference effect". *International Workshop on wind related disasters and mitigation*, Sendai, Japan, International, March, 2018
6. K. Shruti, P.N. Rao, Sabareesh G R, "Across wind load analysis using CFD for sustainable". *Geomast 2018*, International Congress and Exhibition -Sustainable Civil Infrastructure, Egypt, International, Nov, 2018.
7. S. Ramasamy, G. A. Kulkarni, P. K. Penumakala, A.K. Nallathambi, H. Bottcher, E. Specht, "Influence of water cooling on stresses in DC casting of aluminum alloys" *SWAYAM 2018*, BITS-Pilani, Goa, National, July, 2018.
8. H. Patel, P.K. Penumakala, D. Patel, "Properties of three phase magneto-electro-thermo-elastic composites". *International Conference on Recent Advances in Materials*, MLRIT, India, International, November, 2018.
9. Madan Mohan Reddy N, Kiran CP, "Investigating the effect of metal working fluid in orthogonal cutting of AISI 420 stainless steel using 3-dimensional finite element model". *First International Conference on Emerging Trends in Mechanical Engineering*, (ICETME-2018)20 – 22 December, 2018, International, December, 2018.
10. Kush Dwedi, Supradeepan K, "A Review of Space-Time Conservation element solution element (CESE) schemes". *International Conference on Recent Advances in Fluid and Thermal Sciences*, BITS-Pilani, Dubai, International, Dec, 2018.
11. Ankammarao P., Jalaiah N., Parameshwaran R., "Energy Conversion and Storage Characteristics of Salt Hydrates Towards Thermochemical Energy Storage Applications". *2nd International Conference on Recent Trends in Materials Science and Technology*, October 10-13, 2018, Thiruvananthapuram Kerala India. International, Oct, 2018.
12. Ankammarao P., Jalaiah N., Parameshwaran R., "Evaluation of reaction characteristics of  $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$  for thermochemical energy storage" *International Conference on Advanced Materials, Energy &*

- Environmental Sustainability, December 14-15, 2018 Dehradun, Uttarakhand India, International, Dec, 2018.
13. Deepak Nabapure, Jayesh Sanwal, K. Ram Chandra Murthy & Sreeram Rajesh, "DSMC Simulation of Rarefied Gas Flow in a Single-sided and Double-sided Lid-Driven Cavity". **Proceedings of the 7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP)**, Dec 2018, IIT Bombay, Mumbai, India, International, Dec, 2018.
  14. Deepak Nabapure, Jayesh Sanwal, Sreeram Rajesh & K Ram Chandra Murthy, "Investigation of Subsonic and Hypersonic Rarefied Gas Flow over a Backward Facing Step". Dec 2018 iCRAFT, Dubai, U.A.E., International, Dec, 2018.
  15. G. Lakshmi Srinivas, C. Joshua Amrith Raj & Arshad Javed, "Topology Optimization of Rotating Mechanical Members". **1st Symposium and Workshop for Analytical Youth on Applied Mechanics(SWAYAM)**, BITS Pilani, K. K. Birla Goa Campus. National, July, 2018.
  16. Lanka Tata Rao, K Aravind, Satish Kumar Dubey & Arshad Javed, "Numerical Simulation and Optimization of Micromixer Performance". **1st Symposium and Workshop for Analytical Youth on Applied Mechanics(SWAYAM)**, BITS Pilani, K. K. Birla Goa Campus. National, August, 2018.
  17. Mahalle G., Kotkunde N., Shah R., Gupta A.K., Singh S.K., "Analysis of Flow Stress Behaviour of Inconel Alloys at Elevated Temperatures Using Constitutive Model". **Journal of Physics: Conference Series**, Vol 1063(1). 2018.
  18. Wahed M.A., Gupta A.K., Singh S.K., Kotkunde N. "Effect of anisotropy on mechanical properties of Ti-6Al-4V in superplastic region" **IOP Conference Series: Materials Science and Engineering**, Vol 346(1), 2018.
  19. Kotkunde N., Krishnamurthy H.N., Gupta A.K., Singh S.K. "Study of Hot Deformation Behavior Using Phenomenological Based Constitutive Model for Austenitic Stainless Steel 316" **ICMPC 2017, Materials Today: Proceedings**, Vol 5(2), p. 4870-4877, 2018.
  20. Srinivas MORAPAKALA<sup>1</sup>, PRUDHVIRAJ SUNKARA<sup>2</sup>, REDDY KS, AYUSH VARSHNEY, NAVANEETH KUNCHAM. "Alternate Processes for Energy Efficiency in Non-Centrifugal Cane Sugar Industry-An Analytical Study" -17th international conference on sustainable energy technologies, SET 2018. The conference was organised by world society of sustainable technologies and Hubei university of technology at Wuhan, China during 21st -23rd August 2018. International, August, 2018.
  21. Morapakala Srinvas, Sunkara Prudhvi Raj 2, Louis F Marie, K SReddy, Tadhg S O'Donovan, "Assessment of optimum energy demand for non-centrifugal sugar production through an alternate process". **International Conference on Recent Advances in Fluid and Thermal Sciences, iCRAFT 2018**. The conference had happened at BITS Pilani Dubai campus during 05th - 07th December 2018 at Dubai, UAE. International, December, 2018.

#### IV. Invited Talks given by BITS faculty:

Faculty	Title of the Invited Speech	Institute/Location Details
Dr Sujith R	Scanning Electron Microscopy	GRIET, Hyderabad
Dr Sujith R	Graphene based polymer derived ceramics	Kerala University, Thiruvananthapuram
Dr Sabareesh G R	Vibration Isolation- Design for Vibrations and Shock Isolation Systems	DRDL, Hyderabad
Dr Sabareesh G R	Mechanical Vibrations	FDP at Geethanjali Engineering College
Dr Pavan Kumar P	Advanced FE analysis of composite laminates	MERC, Hyderabad
Dr Supradeepan K	Recent Advances in CFD	MERC, Hyderabad
Dr Supradeepan K	Advances in Vehicle Dynamics	Gurunanak Institute of Technology
Prof Srinivasa Prakash Regalla	Modeling of Selective Laser Sintering	Two-day National Level Workshop on Additive Manufacturing Technology, CMRIT, Hyderabad
Prof Srinivasa Prakash Regalla	Design of Machine Elements	Machine Design Faculty Development Programme
Prof Srinivasa Prakash Regalla	Subject Matter Expert and Speaker	Mechanical Engineering Curriculum Development Workshop
Prof N Suresh Kumar Reddy	Improving Manufacturing Process through Technology and Innovation	Dept. of Mechanical Engineering, Methodist College of Engineering and Technology, Hyderabad

## V. Invited talks arranged in the department: -

Name of Guest	Organization	Topic of the Guest Lecture	Duration	Organised By
Dr.Vasudevan Gnana Gandhi	ISRO	Propulsion Technology at ISRO: Challenges Faced, and Future	19, Sep 2018	Prof NSK Reddy
Mr.Rakesh Tergundi	Mobijini	Supply Chain Management - Issues and Challenges	15, Sep 2018	Dr CP Kiran
Dr.R.Murali Krishna	GE Power	Global Engineering Research Trends and Opportunities for Engineering Graduates	01, Oct 2018	Prof Srinivasa Prakash Regalla
Dr.Anand Parey	IIT-Indore	Gear Fault Diagnosis	24, Nov 2018	Dr Sabareesh GR

## VI. Awards and recognitions won by faculty and students : NIL

(ii) Faculty Development, International Collaboration &amp; Industry Immersion: NIL

## VII. Significant new equipments/experimental facility added during the year:

Sl. No.	Name of the Lab	Equipment Added	Amount (Rs.)
1.	Dynamics Lab	Vibration Meter	137929
		Accelerometer	41241
2.	Material Testing Lab	Marking Guage	40002
3.	PDR Lab	Magnetic-V-BLOCK	24426

## VIII. Departmental association/club activities :

- 1.Orientation programme organized to interact with Faculty, Students, & PhD scholars on August 2018.
- 2.Two-day Workshop on Tribology workshop TRIBO-2018 organised by MEA on November 2018.

## IX. Major maintenance, renovations or new construction reports: Nil

- (i) K. Major equipments acquired during the year: Nil

**B3.10.10 Mathematics**

Number of Faculty Members:

Senior Professors, Professors	1
Associate Professors	4
Assistant Professors	12
Lecturers	0
Visiting Faculty	1

Head of the Department: Dr. Dipak Kumar Satpathi

Contact Details: 040-66303507

Email: dipak@hyderabad.bits-pilani.ac.in

Number of Ph.D. Scholars: 15

**I. Sponsored Research Activities:****(a) Ongoing Projects:**

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Construction of arbitrary tensor networks using cross approximation	N. Kishore Kumar	NBHM	13.591	2015-2018
2	Development of an encryption algorithm for secure transmission of color images	Manish Kumar	SERB - DST	15.08	2016-2019
3	Development of an accurate and robust unstructured grid-based adjoint approach for compressible turbulent flows	Anil Nemili	SERB - DST	15.906	2017-2020
4	Comparison of phase velocities of Rayleigh waves, Love waves and Torsional waves in various anisotropic geo-media	Sumit Kumar Vishwakarma	SERB - DST	13.668	2017-2020

**(b) Projects Sanctioned During the Year:**

S.No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount	Duration
1	Characterizing the sets of periodic points of automorphisms on a solenoid	Sharan Gopal	SERB - DST	19.98480	2018–2021

**II. Publications:**

1. D. Narsimhulu, A. Ramu, D. Kumar Satpathi: Self-similar motion of strong converging cylindrical and spherical shock waves in non-ideal stellar medium, *Journal of Applied Fluid Mechanics*, 11(6), 1717-1726, 2018.
2. Narsimhulu Dunna, Addepalli Ramu, Dipak Kumar Satpathi, Numerical solution to strong cylindrical shock wave in the presence of magnetic field, Proceedings of the World Congress on Engineering 2018, Vol I WCE 2018, July 4-6, 2018, London, U.K.
3. B. Mishra, Sankarsan Tarai, S.K.J. Pacif: Dynamics of Bianchi VI<sub>h</sub> universe with bulk viscous fluid in modified gravity, *International Journal of Geometrical Methods in Modern Physics*, 15(3), 1850036, 2018.
4. B. Mishra, Pratik P. Ray, S.K.J. Pacif: Anisotropic cosmological models with two fluids, *Advances in High Energy Physics*, 2018, 6306848, 2018.
5. B. Mishra, S.K. Tripathy, Sankarsan Tarai: Cosmological models with a hybrid scale factor in an extended gravity theory, *Modern Physics Letter A*, 33(9), 1850052, 2018.

6. B. Mishra, S.K. Tripathy, Pratik P. Ray: Bianchi-V string cosmological model with dark energy anisotropy, *Astrophysics and Space Science*, 363:86, 2018.
7. B. Mishra, Sankarsan Tarai, S.K. Tripathy: Dynamical features of an anisotropic cosmological model, *Indian Journal of Physics*, 92(9), 1199-1206, 2018.
8. B. Mishra, Sankarsan Tarai, S.K. Tripathy: Anisotropic cosmological reconstruction in  $f(R, T)$  gravity, *Modern Physics Letter A*, 33, 1850170, 2018.
9. Fakhreeh Md. Esmaeli, B. Mishra: Behaviour of physical parameters in extended gravity with hyperbolic function, *Journal of Astrophysics and Astronomy*, 39, 59, 2018.
10. Sankarsan Tarai, B. Mishra: Dynamical aspects of the magnetized anisotropic cosmological model in extended gravity, *The European Journal of Physics Plus*, 133:435, 2018.
11. S. Aygün, H. Baysal, Can Aktas, I. Yilmaz, P.K. Sahoo, I. Tarhan: Teleparallel energy-momentum distribution of various black hole and wormhole metrics, *International Journal of Modern Physics A*, 33(30), 1850184, 2018.
12. P.K. Sahoo, S.K. Tripathy, Parbati Sahoo: A periodic varying deceleration parameter in  $f(R, T)$  gravity, *Modern Physics Letters A*, 33(33), 1850193, 2018.
13. P.K. Sahoo, P.H.R.S. Moraes, Parbati Sahoo, Binaya K. Bishi:  $f(R, T) = f(R) + \lambda T$  gravity models as alternatives to cosmic acceleration, *European Physical Journal C*, 78(9), 736, 2018.
14. Sezgin Aygün, Can Aktas, Pradyumn Kumar Sahoo, Binaya K. Bishi: Scalar field cosmology in  $f(R, T)$  Gravity with  $\Lambda$ , *Gravitation and Cosmology*, 24(3), 302-307, 2018.
15. Lokesh Kumar Sharma, Anil Kumar Yadav, P.K. Sahoo, Benoy Kumar Singh: Non-minimal matter-geometry coupling in Bianchi I space-time, *Results in Physics*, 10, 738-742, 2018.
16. Can Aktas, Sezgin Aygün, Pradyumn Kumar Sahoo: Relationship between magnetic field and anisotropy parameter in gravitation theories, *Modern Physics Letters A*, 33 (24), 1850135, 2018.
17. P.K. Sahoo, P.H.R.S. Moraes, Parbati Sahoo: Wormholes in  $R^2$ -gravity within the  $f(R, T)$  formalism, *European Physical Journal C* 78(1), 46, 2018.
18. P.H.R.S. Moraes, P.K. Sahoo: Non-exotic matter wormholes in a trace of the energy-momentum tensor squared gravity, *Physical Review D*, 97(2), 024007, 2018.
19. P.K. Sahoo, Parbati Sahoo, B.K. Bishi, S. Aygün: Magnetized strange quark matter in  $f(R, T)$  gravity with bilinear and special form of time varying deceleration parameter, *New Astronomy*, 60, 80-87, 2018.
20. P. Raja Sekhara Rao, K. Venkata Ratnam, M. Sita Rama Murthy: Stability preserving non-standard finite difference schemes for certain biological models, *International Journal of Dynamics and Control*, 6(4), 1496 – 1504, 2018.
21. P. Raja Sekhara Rao, K. Venkata Ratnam, P. Lalitha: Food-consumer interactions: role of time varying key parameters - a new perspective, *Computational Mathematics and Modeling*, 29 (2), 153 – 167, 2018.
22. T.S.L. Radhika, M.B. Srinivas, T. Raja Rani: A study on the oscillatory flow of a newtonian fluid in a tapered pipe, *Far East Journal of Applied Mathematics*, 99, 289-307, 2018.
23. T.S.L. Radhika, M.B. Srinivas, T. Raja Rani, A. Karthik: Unsteady flow of a newtonian fluid in contracting and expanding pipe, *International Journal of Mathematical Models and Methods in Applied Sciences*, 12, 21-25, 2018.
24. Rachid Ait Maalem Lahcen, Ram Mohapatra, Manish Kumar: Cybersecurity: a survey of vulnerability analysis and attack graphs, Mathematics and Computing, *Proceedings in Mathematics & Statistics*, Volume 253, Chapter 9, 97 – 111, 2018.
25. Manish Kumar, R.N. Mohapatra, Sajal Agarwal, G. Sathish, S.N. Raw: A new RGB image encryption using generalized Vigen`ere-type table over symmetric group associated with virtual planet domain, *Multimedia Tools and Applications*, 2018.
26. Jagan Mohan Jonnalagadda: Discrete state space systems of fractional order, *International Journal of Dynamical Systems and Differential Equations*, 8(3), 228 - 241, 2018.
27. Jagan Mohan Jonnalagadda: Matrix Mittag - Leffler functions of fractional nabla calculus, *Computational Methods for Differential Equations*, 6(2), 128 – 140, 2018.
28. Jagan Mohan Jonnalagadda: Asymptotic stability for 2 x 2 fractional nabla difference systems, *International Journal of Dynamics and Control*, 2018.

29. Jagan Mohan Jonnalagadda: explicit criteria for stability of fractional two dimensional nabla difference systems, *Mathematics and Computing, Springer Proceedings in Mathematics & Statistics*, Volume 253, Chapter 24, 305 – 314, 2018.
30. Jagan Mohan Jonnalagadda: *On two point Riemann - Liouville type nabla fractional boundary value problems, Advances in Dynamical Systems and Applications*, 13(2), 141 – 166, 2018.
31. Jagan Mohan Jonnalagadda: Lyapunov-type inequalities for discrete Riemann - Liouville fractional boundary value problems, *International Journal of Difference Equations*, 13(2), 85 – 103, 2018.
32. P. Biswas and N. Kishore Kumar and Anil Kumar Kar: Performance of space-time coupled least-squares spectral element methods for parabolic problems, *Journal of Physics: Conference Series*, 1132(1), 12 – 20, 2018.
33. Sumit Kumar Vishwakarma, Rupinderjit Kaur, Tapas Ranjan Panigrahi, Love wave frequency in an orthotropic crust over a double-layered anisotropic mantle, *Soil Dynamics and Earthquake Engineering*, 110, 86-92, 2018.
34. Sumit Kumar Vishwakarma, Tapas Ranjan Panigrahi, Rupinderjit Kaur: On Love wave frequency under the influence of linearly varying shear moduli, initial stress, and density of orthotropic half-space, *Mathematics and Computing, Proceedings in Mathematics & Statistics*, Volume 253, Chapter 17, 209 – 223, 2018.
35. Sharan Gopal, R. Srikanth: *Dynamics of real projective transformations*, *Appl. Gen. Topology*, 19, 239-244, 2018.
36. Sunitha. G, Sampath Kumar. K, JyothiRani. S.A, Haragopal. V.V: Forecasting GDP using ARIMA and artificial neural networks models under Indian environment, *International Journal of Mathematics Trends and Technology*. 5(1), 60-70, 2018.
37. Abu Seif Mohammad Fares and V.V. HaraGopal: a skew extension of the multivariate generalized distributions with applications, *International Journal of scientific Research in Mathematical and Statistical Sciences*, 5(3), 34-39, 2018.
38. Sampath Kumar. K, V. Swapna, Jyothi Rani. S.A. and Haragopal.V.V.: Weekly crude oil price forecasting using ARIMA and neural networks, *Shanlax International Journal of Management*, 5, 71, 2018.
39. Raghuram Prasad Dasaradhi, HaraGopal V.V.: Use of eigenvalues and eigen vectors in limiting behavior of Leslie model, *Far East Journal of Mathematical Sciences*, 108(1), 193-216, 2018.
40. Raju Nellutla, M. Goverdhan and V.V. HaraGopal: Measuring the technical efficiency of decision making units by CCR model in data envelopment analysis, *International Journal of Scientific Research in Mathematical and Statistical Sciences*, 5(4), 2018.
41. K. Sampath Kumar, G. Sunitha, S.A. Jyothi Rani and V.V. HaraGopal: Comparison of global GDP analytics - a statistical perspective, *International Journal of Scientific Research in Mathematical and Statistical Sciences*, 5(4), 146-152, 2018.
42. K. Sampath Kumar, V. Swapna, S.A. Jyothi Rani and V.V. HaraGopal: Volatility of daily and weekly crude oil prices - a statistical perspective, *International Journal of Scientific Research in Mathematical and Statistical Sciences*, 5(5), 108-113, 2018.
43. Raj Aditya Kumar and V.V. HaraGopal: Survey analytics of star hotels, *International Journal of Scientific Research in Mathematical and Statistical Sciences*, 5(5), 192-198, 2018.
44. Koley, S., Sahoo, T.: An integro-differential equation approach to study the scattering of water waves by a floating flexible porous plate, *Journal of Geophysical and Astrophysical Fluid Dynamics*, 112(5), 2018.
45. M. Gupta, D. Baweja: Composition and translation operators on certain subspaces of the space of entire functions of bounded type, *Collect. Math.*, 2018.

### III. Conferences attended/papers presented:

1. Saikiranmai Gorla, Sriharshitha Velivelli, Dipak Kumar Satpathi, N.L. Bhanu Murthy, Aruna Malapati: Named Entity Recognition using Part-of-Speech Rules for Telugu. Presented in ICACNI 2018 held at NIT Silchar during 4<sup>th</sup> – 6<sup>th</sup> June, 2018.
2. Selva Kumat V., Dipak Kumar Satpathi, P.T.V. Praveen Kumar, V.V. Haragopal: Forecasting using ARIMA model for Motor Insurance Claim Data. Presented in XXVII Annual Congress of APTSMS & National Conference on Recent Advances in Mathematics held at Department of Mathematics, Maris Stella College, Vijayawada during 8<sup>th</sup> – 10<sup>th</sup> December, 2018.

3. B. Mishra presented a paper titled “**String** Cosmological Models in  $f(R, T)$  Gravity with Hybrid Scale **Factor**” in International Conference on String Math – 2018 held at Tohoku University, Sendai, Japan, during 18<sup>th</sup> – 22<sup>nd</sup> June, 2018.
4. Dr Manish Kumar presented a paper titled “Two Stage Hyper-Chaotic System Based Image Encryption in Wavelet Packet Domain for Wireless Communication Systems” in International Congress of Mathematicians (ICM) 2018 held at Rio de Janeiro, Brazil during 1<sup>st</sup> – 9<sup>th</sup> August, 2018.
5. Karthik A., Sashank K., T.S.L. Radhika: A Study On the Effect of Various Fluid, Flow and Mechanical Parameters on the Flow of Newtonian Fluid in an Expanding and Contracting Pipe. Presented in ICACM - 2018 held at IIT, Kharagpur during 23<sup>rd</sup> – 25<sup>th</sup> November, 2018.
6. Dr Sumit Kumar Vishwakarma presented a paper titled “On Love Frequency Under the Influence of Shear Moduli, Initial Stress and Density of Orthotropic Half **Space**” in Fourth International Conference on Mathematics and Computing (ICMC - 2018) at IIT-BHU, Varanasi during 9<sup>th</sup> – 11<sup>th</sup> January, 2018.
7. Dr Sharan Gopal **presented an article titled**, “Characterising the sets of periodic points for solenoidal automorphisms” **at the 52<sup>nd</sup> Spring Topology and Dynamical Systems Conference** held at Auburn University, Auburn, Alabama, USA during 14<sup>th</sup> – 17<sup>th</sup> March, 2018.
8. Russell Quadros, Srikanth S., Anil Nemili, Matteo Bernardini: Sensitivity analysis for active control of transonic airfoil buffet. Presented in 71<sup>st</sup> Annual American Physical Society (APS) Division of Fluid Dynamics (DFD) meeting held at Atlanta, Georgia, USA during 18<sup>th</sup> - 20<sup>th</sup> November, 2018.
9. **V.V. Haragopal presented a paper titled “Exact determination of Eigen values” in the Telangana Science congress** held at NIT Warangal during December, 2018.
10. **Santanu Koley presented an article titled “Integral Equation Technique for Hydroelastic Analysis of a Submerged Flexible Plate” in International Conference on Applied and Computational Mathematics** held at IIT Kharagpur during 23<sup>rd</sup> – 25<sup>th</sup> November, 2018.
11. **Santanu Koley presented an article titled “Wave Trapping by Trapezoidal Porous Breakwater” in 63<sup>rd</sup> Indian Society of Theoretical and Applied Mechanics (ISTAM)** held at Dayanand Sagar University, Bengaluru during 20<sup>th</sup> – 23<sup>rd</sup> December, 2018.
12. Koley, S., Panduranga, K., Satpathi, D.: Convergence of Eigenfunction Expansions for Membrane Coupled Gravity Waves. Presented in 63<sup>rd</sup> Indian Society of Theoretical and Applied Mechanics (ISTAM) held at Dayanand Sagar University, Bengaluru during 20<sup>th</sup> – 23<sup>rd</sup> December, 2018.

#### IV. Invited Talks given by BITS faculty:

1. Prof. A. Ramu gave an invited talk in the Workshop organized by Geetanjali College of Engineering and Technology, Hyderabad 24<sup>th</sup> October, 2018.
2. Prof. B. Mishra gave an invited talk on “**Anisotropy** in the study of Dark Energy and Modified **Gravity**” in Workshop on Pure and Applied Mathematics held at Department of Mathematics, NIT, Imphal, Manipur during 11<sup>th</sup> – 15<sup>th</sup> December, 2018.
3. Prof. B. Mishra gave an invited talk on “**Mathematical** Formulation for Cosmological Models with Scale **Factors**” in National Workshop on Mathematics and its Applications held at Department of Mathematics, Sri Venkateswara University, Tirupati during 8<sup>th</sup> – 10<sup>th</sup> November, 2018.
4. Prof. B. Mishra gave an invited talk on “**General** Formalism for String Cosmological Models in an Extended Gravity **Theory**” in International Conference on Recent Advances in Pure and Applied Mathematics held at Department of Mathematics, Delhi Technical University, Delhi during 23<sup>rd</sup> – 25<sup>th</sup> October, 2018.
5. Prof. B. Mishra gave an invited talk on “**Study** of Cosmological Models with Mathematical **Techniques**” in International Conference on Pure and Applied Mathematics held at Department of Mathematics, SCSVMV University, Kanchipuram, Tamilnadu during 19<sup>th</sup> – 20<sup>th</sup> February, 2018.
6. Prof. P.K. Sahoo gave an invited talk on “**Traversable** Wormholes in Modified **Gravity**” in International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM2018) held at Department of Applied Mathematics, Delhi Technological University, Delhi, India from 23<sup>rd</sup> – 25<sup>th</sup> October, 2018.
7. Dr N. Kishore Kumar gave an invited talk at Vaasavi Engineering College, Hyderabad 20<sup>th</sup> January, 2018.
8. Dr N. Kishore Kumar gave an invited talk at C.M.R. Technical Campus, Hyderabad 8<sup>th</sup> September, 2018.



9. Dr N. Kishore Kumar gave an invited talk in Workshop on Mathematical Modelling using High Performance Numerical Computations held at Department of Mathematics, NIT Silchar, during 29<sup>th</sup> September – 3<sup>rd</sup> October, 2018.
10. Dr Sharan Gopal gave an invited talk titled “Complex Calculus” at A.V. College, P.G. Center, Hyderabad on 28<sup>th</sup> August 2018.
11. Dr Anil gave an invited talk in Workshop on Mathematical Modelling using High Performance Numerical Computations held at Department of Mathematics, NIT Silchar, during 29<sup>th</sup> September – 3<sup>rd</sup> October, 2018.
12. Prof. V.V. Haragopal gave an invited talk on “Digitisation of Business and Analytics - A Key Driver in the Paradigm Shift” at Siva Sivani Institute of Management, Kompally, Secunderabad during 11<sup>th</sup> – 12<sup>th</sup> February 2018.
13. Prof. V.V. Haragopal gave an invited talk on “Statistical Financial Modelling” in 12<sup>th</sup> National Statistics Day held at Department of Statistics, S.V. University, Tirupati on 29<sup>th</sup> June, 2018.
14. Prof. V.V. Haragopal gave an invited talk in Math Origins - 2K18 held at Loyola Academy Degree and P.G. College, Hyderabad during 6<sup>th</sup> - 7<sup>th</sup> September, 2018.
15. Dr Deepika gave an invited talk on “Linearization of Weighted Spaces of Holomorphic Functions and the Approximation Property” in Recent Trends in Mathematics (NCRMT) held at Department of Mathematics and Astronomy, University of Lucknow, Lucknow during 10<sup>th</sup> – 11<sup>th</sup> November, 2018.

#### V. Invited talks arranged in the department:

1. Prof. V.D. Sharma, IIT Mumbai delivered a talk on “Differential Equations” on 27<sup>th</sup> November, 2018.
2. Prof. Shobha Madan, IIT Kanpur delivered a talk on “Mathematics of Wobbly Tables, Honey Bee hives and art from straight lines” on 1<sup>st</sup> November, 2018.
3. Prof. A.S. Vasudeva Murthy, TIFR delivered a talk on “the String Equation of Narasimha” on 27<sup>th</sup> September, 2018.
4. Prof. Peeyush Chandra, IIT Kanpur delivered a talk on “Mathematical Modelling for HIV primary infection” on 26<sup>th</sup> March, 2018.

#### VI. Awards and recognitions won by faculty and students:

1. Prof. B. Mishra is a member of International Advisory Committee for International Conference on Physical Interpretation of Relativity Theory, Department of Physics, Bauman Moscow State Technical University, to be held at Moscow, 1<sup>st</sup> – 5<sup>th</sup> July, 2019.
2. Dr Manish Kumar was awarded Open Arms Grants (Geographical Region: Asia & Pacific) sponsored by IMPA – Instituto de Matemática Pura e Aplicada and SBM – Sociedade Brasileira de Matemática, with a generous contribution by IMU – International Mathematical Union to attend the International Congress of Mathematicians (ICM) during 1<sup>st</sup> – 9<sup>th</sup> August, 2018 at Rio de Janeiro, BRAZIL.
3. Dr T.S.L. Radhika received a certificate of Excellence in Reviewing by the Journal of Advances in Mathematics and Computer Science.
4. Ms. Aditi Sharma (2015B4A70701H) completed a summer research internship under the DAAD scholarship at TU Kaiserslautern, Germany during 20<sup>th</sup> May – 20<sup>th</sup> July, 2018 under the supervision of Prof. Nicolas Gauger. The topic of work was 'Gradient Enhanced Support Vector Regression for Statistical Learning'.
5. Mr. Aditya Mishra (2016B4AB0532) visited Malaysia during 16<sup>th</sup> – 20<sup>th</sup> August, 2018 for HPAIR (Harvard project for Asian and international relations) Asia conference.
6. Mr. Vibhu Aggrawal (2018) pursued off campus thesis under the supervision of Prof. Jayaram K Udupa, University of Pennsylvania, USA on 'Automatic localization of body regions on CT and PET/CT images via deep learning' during July - December, 2018.
7. Ms. Ahana Ghosh (2018) pursued off campus thesis under the supervision of Prof. Adish Singla, Max Planck Institute of Software Systems, Germany on 'Adversarial Reinforcement Learning' during 8<sup>th</sup> June – 30<sup>th</sup> November, 2018.

#### VII. Faculty Development, International Collaboration & Industry Immersion:

1. Prof. B. Mishra visited CERN (European Organisation for Nuclear Research), Switzerland under the Exposure the BITS faculty to Universities Abroad" programme during 21<sup>st</sup> May – 16<sup>th</sup> June, 2018. The visit was sponsored by BITS.
2. Prof. P.K. Sahoo visited Department of Mathematical Sciences, University of Essex, UK from 21<sup>st</sup> -

31<sup>st</sup> May 2018 as International Visiting Fellow.

3. Dr T.S. L. Radhika worked with Pearson International for India adaption of the book on Linear Algebra, 5<sup>th</sup> edition by David Lay, 2018.
4. Dr T.S. L. Radhika is a member in the Panel of Examiners for Mathematics courses for B.Tech. in SRKR Engineering College (Autonomous), Bhimavaram, Andhra Pradesh.
5. Dr. J. Jagan Mohan visited Department of Mathematics, University of Dayton, Ohio, USA for collaborative work with Prof. Paul Elie on "Boundary Value Problems at Resonance" from May 20<sup>th</sup> – 10<sup>th</sup> June, 2018.
6. Dr. Anil started collaboration with Prof. Matteo Bernardini and Dr. Russell Quadros (Sapienza University of Rome, Italy) in the area of "Optimal active flow control of shock wave boundary layer interactions". As part of the collaboration, Dr. Russell visited BITS Pilani, Hyderabad campus from June - October, 2018.
7. Dr. Anil was the external reviewer for the PhD progress review seminars at Department of Applied Mathematics, Defence Institute of Advanced Technology (DIAT), Pune on January 17, 2018.

**VIII. Significant new equipment's /experimental facility added during the year: -**

**IX. Departmental association/club activities:**

Pre Atmos:

Integration bee - Subjective quiz on integration

Atmos:

1. Ncrypton
2. Cubing Atmosphere- Speed Cubing contest, consist of ten sub-categories:
  - 2x2
  - 3x3(Rubik's) cube**
  - 4x4
  - 5x5
  - 3x3 one hand
  - 3x3 blindfolded
  - 3x3 with feet
  - Skewb
  - Pyraminx
  - Megaminx

**X. Major maintenance, renovations or new construction reports:**

Established DST-FIST computer lab in H-block.

**XI. Major equipment's acquired during the year: -**

**B3.10.11 Pharmacy**

Department Name: PHARMACY

Number of faculty members

Senior Professors, Professors	02
Associate Professors	06
Assistant Professors	03
Lecturers	-
Visiting Faculty	-

Head of the Department : Prof. D.Sriram

Contact details: Email: dsriram@hyderabad.bits-pilani.ac.in

Number of PhD Scholars: Full time: 35; Part-time: 10

(I) Sponsored Research activities:

Ongoing projects

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Strategies against antibiotic resistance in Mycobacterium tuberculosis and ESKAPE pathogens; new drugs and new targets	D. Sriram	Indo-Sweden-3	67	3 years
2	Advancing host-directed therapy for tuberculosis/MDR-TB: Development of novel PKB/AKT1 and Protein Kinase R inhibitors as an adjunctive treatment for tuberculosis	D. Sriram	DBT-Tata Innovation	27	3 years
3	Design and synthesis & biological evaluation of Mycobacterium tuberculosis serine/threonine protein kinase (BPknB) inhibitors	D. Sriram	DST	27.61	3 years
4	Development of a Non-invasive biodegradable polymeric microprojection ocular patch for effective corneal delivery of anti-microbial agents to treat fungal infections of eye	V Vamsi Krishna Venuganti	ICMR	42.25	3 years
5	Development of pH-responsive smart capsule containing targeted multilayer film for drug delivery: The proof-of-concept study in colorectal cancer model	V Vamsi Krishna Venuganti	DST	55.54	3 years
6	Preparations and Characterization of a topical gel formulation of topical gel formulation of IS107	V Vamsi Krishna Venuganti	ISSAR	5.63	1 year
7	Transcutaneous delivery of liraglutide using zein microneedle array	V Vamsi Krishna Venuganti	NATCO	22.42	1 year
8	Development and characterization of a topical gel formulation of a candidate drug	V Vamsi Krishna Venuganti	Sarudbhava Formulations Pvt. Ltd.	6	1 year
9	Development and characterization of a topical formulations	V Vamsi Krishna Venuganti	ISSAR-2	9.79	1 year
10	Investigations on pro-inflammatory cytokine inhibitory low molecular weight metabolites of Pseudomonas sp. ABS -36 for the treatment of renal injury	A. Sajeli Begum	DST	24.39	3 years

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
11	Investigation on knowledge of Dengue fever followed by its education and post impact behavioural changes among rural communities of Shamirpet Mandal	A. Sajeli Begum	ICSSR-ICMR	10.9	2 years
12	Technical and knowledge support for preparation and filing of drugs master file (DMF) as per common technical documents (CTD) for sennosides USP including the analytical requirements	Punna Rao Ravi	Shahsi Phytochemical Ltd	5.75	2 years & 4 months
13	Design, Synthesis and Biological Evaluation of HDAC3 Selective Inhibitors as Long Term Memory Enhancers	Balaram Ghosh	DST	29.87	3 years
14	Development of epigenomes-targeted liposomes for the cancer specific delivery of chemotherapeutic drug, Doxorubicin	Swati Biswas Balaram Ghosh	SUN Pharma Advanced Research Company Ltd.	29	2 years
15	Formulation development and physico-chemical/in vitro/in vivo characterization of a nano-suspension formulation of an anticancer drug	Balaram Ghosh	Dr. Reddy's Laboratory, Hyderabad	9	3 years
16	Functional role of histone deacetylase 5 (HDAC5) in the pathogenesis of chronic kidney diseases and renal fibrosis	Onkar Kulkarni	DBT	46	3 years
17	Role of interleukin 22 in diabetic wound healing and regeneration	Onkar Kulkarni	DST	27.26	3 years
18	Role of double stranded RNA dependent protein kinase (PKR) in hypertension: Mechanism and prevention	Arti Dhar	DST	26.04	3 years
19	UK-India Centre for Advanced Technology for Minimization of indiscriminate use of Antibiotics (UKICAT-MA)	PI - Dr. Prashant Garg (LVPEI), Co-PI - V Vamsi Krishna Venuganti	DBT-MRC	35	3 years
20	Understanding the Role of Antimicrobial S100A12 ( Calgranulin C) Mediated Host Defense in Pseudomonas Keratitis and Developing Nano-tools for Efficient Delivery of S100A12	Dr. Sanhita Roy, Co-PI - Swati Biswas	DST LVPEI, Hyderabad	16.38	3 years
21	Development of Paclitaxel Nano-formulation	Swati Biswas	Dr. Reddy's Laboratory, Hyderabad	8.27	3 years

## Projects sanctioned during the year

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Consultancy Project	Punna Rao Ravi	Acubiosys Pvt. Ltd.,	11.75	1 year
2	Determination of wound healing (pro-angiogenic properties of peptide conjugate)	PI- Dr.Raunak Varshney (DRDO) Co-PI – Onkar Kulkarni	Institute of Nuclear Medicine & Allied Sciences (DRDO)	8	2 years
3	Development and characterization of emulsion based drug product for the management of emetogenic cancer chemotherapy	Akash Chaurasiya	Slayback Pahrma	3.95	

## II. Publications:

- Design, Synthesis and T.R.Deshmukh, J.N.Sangshetti, V.S.Krishna, D. Sriram, V.M. Khedkar, B.B. Shingate, Chemistry Select3, 13113-13122, 2018.
- Rational design of coumarin derivatives as antituberculosis agents. H. M. Mali, S. S Sabale, M. S. Degani, R. Borkute, A. S. Choudhari, D. Sarkar, V. S. Krishna, D. Sriram. Future Med. Chem. 10, 2431-2444, 2018.
- A quinoline compound inhibits the replication of dengue virus serotypes 1-4 in Vero cells. H. Beesetti, P. Tyagi, B. Medapi, V.S. Krishna, D. Sriram, N. Khanna, S. Swaminathan. Antivir Ther. 23, 385-2394, 2018.
- Pharmacological evaluation of novel PKR inhibitor indirubin-3-hydrazone in-vitro in cardiac myocytes and in-vivo in wistar rats. M.P. Udumula, A. Bhat, S. Mangali, J. Kalra, I. Dhar, D. Sriram, A. Dhar. Life Sci. 209, 85-96, 2018.
- Clickable conjugates of bile acids and nucleosides: Synthesis, characterization, in vitro anticancer and antituberculosis studies. D.S. Agarwal, V. Siva Krishna, D. Sriram, P. Yogeewari, R. Sakhuja. Steroids 139, 35-44, 2018.
- Amsacrine Derivatives Selectively Inhibit Mycobacterial Topoisomerase I (TopA), Impair M. smegmatis Growth and Disturb Chromosome Replication. M. J. Szafran, M. Kolodziej, P. Skut, B. Medapi, A. Domagala, D. Trojanowski, J. Zakrzewska-Czerwinska, D. Sriram, D. Jakimowicz. Front. Microbiol. 9:1592, 2018.
- Synthesis and biological evaluation of dihydroquinoline carboxamide derivatives as anti-tubercular agents. G. Kumar, A. Sathe, V.S. Krishna, D. Sriram, S. M. Jachak. Eur. J. Med. Chem. 157, 1-13, 2018.
- Synthesis of carbonylhydrazides and carboxamides as anti-tubercular agents. G. Kumar, V. S. Krishna, D. Sriram, S. M. Jachak. Eur. J. Med. Chem. 156, 871-884, 2018.
- Structure-based design of some isonicotinic acid hydrazide analogues as potential antitubercular agents Amal Atta, Salwa Fahmy, Ola Rizk, Dharmarajan Sriram, Mona A. Mahran, Ibrahim M. Labouta. Bioorg. Chem. 80, 721-732, 2018.
- Design, Synthesis and in vitro anti-tubercular activity of 1,2,3-triazolyl-dihydroquinoline derivatives. S. Banu, R. Bollu, L. Nagarapu, J.B Nanubolu, Y. Perumal, D. Sriram, S.K. Gunda, D. Vardhan. Chem Biol Drug Des. 92, 1315-1323, 2018.
- Benzo[d]thiazole-2-carbanilides as new anti-TB chemotypes: Design, synthesis, biological evaluation, and structure-activity relationship. T.M. Dhameliya, R. Tiwari, A. Banerjee, S. Pancholia, D. Sriram, D. Panda, A.K. Chakraborti. Eur J Med Chem. 155, 364-380, 2018.
- 1,2,3-Triazole-fused spirochromenes as potential anti-tubercular agents: synthesis and biological evaluation. D. Ashok, P. Chiranjeevi, A. V. Kumar, M. Sarasija, V. S. Krishna, D. Sriram, S. Balasubramanian. RSC Adv., 8, 16997-17007, 2018.
- Dibenzofuran, dibenzothiophene and N-methyl carbazole tethered 2-aminothiazoles and their cinnamamides as potent inhibitors of Mycobacterium tuberculosis. G. Surineni, S.K. Marvadi, P. Yogeewari, D. Sriram, S. Kantevari. Bioorg Med Chem Lett. 28, 1610-1614, 2018.

14. Identification of potent chromone embedded [1,2,3]-triazoles as novel anti-tubercular agents. V. Nalla, A. Shaikh, S. Bapat, R. Vyas, M. Karthikeyan, P. Yogeewari, D. Sriram, M. Muthukrishnan. R. Soc. open sci.5, 171750, 2018.
15. In silico design of small peptides antagonist against leptin receptor for the treatment of obesity and its associated immune-mediated diseases. M. Munikumar, V.S. Krishna, V.S. Reddy, B. Rajeswari, D. Sriram, M.V. Rao. J. Mol. Graph. Modell. 82, 20-36, 2018.
16. Synthesis and Evaluation of 4',5'-Dihydrospiro[piperidine-4,7'-thieno[2,3-c]pyran] Analogues Against Both Active and Dormant Mycobacterium tuberculosis. K. K, Alluri, R. S. Reshma, R. Suraparaju, S. Gottapu, D. Sriram, Bioorg. Med. Chem. 26, 1462–1469, 2018.
17. Identification and Development of Novel Indazole Derivatives as Potent Bacterial Peptidoglycan Synthesis Inhibitors. P. Malapati, K.S. Vagolu, D. Sriram. Int J Mycobacteriol, 7, 76-83, 2018.
18. Identification and Development of Oxoquinazoline Derivatives as Novel Mycobacterial Inhibitors Targeting Cell Wall Synthesis Enzyme. P. Malapati, K.S. Vagolu, D. Sriram. Biomed. Biotechnol. Res. 2, 31-38, 2018.
19. Identification and development of benzoxazole derivatives as novel bacterial glutamate racemase inhibitors. P. Malapati, V.S. Krishna, R. Nallangi, R.R. Srilakshmi, D. Sriram. Eur J Med Chem. 145, 23-34, 2018.
20. Lead identification and optimization of bacterial glutamate racemase inhibitors. P. Malapati, V.S. Krishna, R. Nallangi, N. Meda, R.R. Srilakshmi, D. Sriram. Bioorg Med Chem. 26, 177-190, 2018.
21. Discovery of novel inhibitors of Mycobacterium tuberculosis MurG: homology modelling, structure based pharmacophore, molecular docking, and molecular dynamics simulations. S. Saxena, M. Abdullah, D. Sriram, L. Guruprasad. J. Biomol. Str. Dyn. 36, 3184-3198, 2018.
22. S.P. Kasturi, S. Surarapu, S. Uppalanchi, S. Dwivedi, P. Yogeewari, D.K. Sigalapalli, N.B. Bathini, K.S. Ethiraj, J.S. Anireddy, Synthesis, molecular modeling and evaluation of alpha-glucosidase inhibition activity of 3,4-dihydroxy piperidines. Eur. J. Med. Chem., 2018, 150, 39-52.
23. F.K. Mediesse, T. Boudjeko, A. Hasitha, M. Gangadhar, W.F. Mbacham, P. Yogeewari, Inhibition of lipopolysaccharide (LPS)-induced neuroinflammatory response by polysaccharide fractions of *Khaya grandifoliola* (C.D.C.) stem bark, *Cryptolepis sanguinolenta* (Lindl.) Schltr and *Cymbopogon citratus* Stapf leaves in raw 264.7 macrophages and U87 glioblastoma cells, BMC Complimentary and Alternative Medicine, 2018, 18, Article no. 86.
24. S. Kasturi, S. Surarapu, S. Uppalanchi, H.S. Anantaraju, S. Dwivedi, P. Yogeewari, K.S. Ethiraj, J.S. Anireddy, Synthesis of new heteroaryl substituted morpholine tagged triazines and evaluation of their cytotoxic activity, Lett. Drug Des. Discov., 2018, 15. 181-192.
25. Avantika V. Dalvi, Chandra Teja Uppuluri, Ekta Prasanthi Bommireddy, Punna Rao Ravi. Design of experiments-based RP – HPLC bioanalytical method development for estimation of Rufinamide in rat plasma and brain and its application in pharmacokinetic study. Journal of Chromatography B (Elsevier Science Ltd., England), 1102-1103: 74-82, 2018. (IF 2.44)
26. Chandra Teja Uppuluri, Avantika V. Dalvi, Ekta Prasanthi Bommireddy, Punna Rao Ravi. Development and validation of rapid and sensitive LC methods with PDA and fluorescence detection for determination of piribedil in rat plasma and brain tissues and their pharmacokinetic application. Biomedical Chromatography(John Wiley & Sons, Inc.), 32(10), 2018 (IF 1.69)
27. Shailender Joseph, Punna Rao Ravi, Reddy Sirukuri Mrinalini, Dalvi Avantika, Keerthi Priya Odapalli. Chitosan nanoparticles for the oral delivery of tenofovir disoproxil fumarate: formulation optimization, characterization and ex vivo and in vivo evaluation for uptake mechanism in rats. Drug Dev. Ind. Pharm. (Informa Healthcare, USA), 26: 1-11, 2018. (IF 2.43)
28. Ameer Basha, S., Sajeli Begum, A. and Ragavendra, G., Biochemical Characterization of Native *Pseudomonas fluorescens* Strains followed by their Compatibility with Agrochemicals and Phyto-extracts under in vitro, Int. J. Pure App. Biosci. 2018, 6(6): 117-124. doi: <http://dx.doi.org/10.18782/2320-7051.7086>
29. Jeyapragash D., Saravana Kumar A., Santosh Kumar S., **Sajeli Begum A.** "GC-MS Based Metabolomics Analysis and Characterization of Rosmarinic Acid from Tropical Seagrass *Halodule pinifolia*" International J. Pharmaceutical Research, 2018, 10(4). <https://doi.org/10.31838/ijpr/2018.10.04.023>

30. A. Sajeli Begum, S. Santhosh Kumar. "Advances in the chemistry and pharmacological potential of coumarinolignans" Topics in Current Chemistry, 2018, 376:34. <https://doi.org/10.1007/s41061-018-0212-5>.
31. Ahil Sajeli Begum, Santosh Kumar, Suryanarayana G, Kirti Hira. "O-Glucoside of natural cleomiscosin-A: An attenuator of pro-inflammatory cytokine production" Phytochemistry Letters, 2018, 26, 83-87. <https://doi.org/10.1016/j.phytol.2018.05.022>.
32. Anup Jose, Kunal M Ninave, Sriravali Karnam, Venkata Vamsi Krishna Venuganti. Temperature-sensitive liposomes for co-delivery of tamoxifen and imatinib for synergistic breast cancer treatment. Journal of Liposome Research (DOI: 10.1080/08982104.2018.1502315).
33. Sudeep Kumar Gade, Nagaveni Shivshetty, Natalia Sharma, Shubhmita Bhatnagar, Prashant Garg, Venkata Vamsi Krishna Venuganti. Effect of mucoadhesive polymeric formulation on corneal permeation of fluoroquinolones. Journal of Ocular Pharmacology and Therapeutics 34 (8), 570-578 (2018).
34. Shubhmita Bhatnagar, Pooja Kumari, Srijanaki Paravastu Pattarabhiran, Venkata Vamsi Krishna Venuganti. Zein microneedles for localized delivery of chemotherapeutic agents to treat breast cancer: Drug loading, release behavior and skin permeation studies. AAPS PharmSciTech 19 (4), 1818-1826 (2018).
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36. Shubhmita Bhatnagar, Amala Saju, Krishna Deepthi Cherala, Sudeep Kumar Gade, Prashant Garg, Venkata Vamsi Krishna Venuganti. Corneal delivery of besifloxacin using rapidly dissolving polymeric microneedles. Drug Delivery and Translational Research 8 (3), 473-483 (2018).
37. Anup Jose, Suman Labala, Kunal Manoj Ninave, Sudeep Kumar Gade, Venkata Vamsi Krishna Venuganti. Effective skin cancer treatment by topical co-delivery of curcumin and STAT3 siRNA using cationic liposomes. AAPS PharmSciTech 19 (1), 166-175 (2018).
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39. Transferrin-anchored poly(lactide) based micelles to improve anticancer activity of curcumin in hepatic and cervical cancer cell monolayers and 3D spheroids. Preeti Kumari, Sri Vishnu Kiran Rompicharla, Omkara Swami Muddineti, Balaram Ghosh, Swati Biswas. International Journal of Biological Macromolecules. 2018. May 9, 116, 1196-1213.
40. Development of curcumin-loaded solid lipid nanoparticles utilizing glyceryl monostearate as single lipid using QbD approach: Characterization and evaluation of anticancer activity against human breast cancer cell line. Himanshu Bhatt, Sri Vishnu Kiran Rompicharla, Neeraja Komanduri, Shah Aashma, Sateja Paradkar, Balaram Ghosh, Swati Biswas. Current Drug Delivery. 2018. Manuscript accepted.
41. Octa-Arginine Modified Poly(amidoamine) Dendrimers for Improved Delivery and Cytotoxic Effect of Paclitaxel in Cancer". Sri Vishnu Kiran Rompicharla, Kumari P, Ghosh B, Biswas S. Artificial Cells, Nanomedicine, and Biotechnology. 2018. (manuscript accepted).
42. "Transferrin-modified vitamin-E/lipid based polymeric micelles for improved tumor targeting and anticancer effect of curcumin". Muddineti OS, Kumari P, Ghosh B, Biswas S. Pharm Research. 2018, 35(5): 97.
43. "Cholesterol and vitamin -conjugated PEGylated polymeric micelles for efficient delivery and enhanced anticancer activity of curcumin: evaluation in 2D monolayers and 3D spheroids" Muddineti OS, Vanaparathi A, Rompicharla SVK, Kumari P, Ghosh, B, Biswas S. Artificial Cells Nanomedicine Biotechnology. 2018, 9: 1-14.
44. "Transferrin and octaarginine modified dual functional liposomes with improved cancer cell targeting and enhanced intracellular delivery for the treatment of ovarian cancer". Deshpande P, Jhaveri A, Pattni B, Biswas S, Torchilin V. Drug Delivery. 2018, 25(1): 517-532.
45. Evaluation of Anti-Tumor Efficacy of Vorinostat Encapsulated Self-Assembled Polymeric Micelles in Solid Tumors. Rompicharla SVK, Trivedi P, Kumari P, Muddineti OS, Thegalapalli S, Ghosh B, Biswas S. AAPS PharmSci Tech. 2018 19(7), 3141-3151.
46. Vitamin-E/lipid based PEGylated polymeric micellar doxorubicin to sensitize doxorubicin-resistant cells towards treatment. Omkara Swami Muddineti, Sri Vishnu Kiran Rompicharla, Preeti Kumari, Himanshu

- Bhatt, Balam Ghosh, and Swati Biswas. Reactive and Functional Polymers. November (2018) DOI: 10.1016/j.reactfunctpolym.2018.10.012.
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  48. Biotin Functionalized Poly(Amidoamine) PEGylated Dendrimer conjugate for Active Targeting of Paclitaxel in cancer; Sri Vishnu Kiran Rompicharla, Preeti Kumari, Himanshu Bhatt, Balam Ghosh, Swati Biswas; International Journal of Pharmaceutics. (Manuscript accepted).
  49. Design, Synthesis and anti-cancer evaluation of Novel Spiro[cyclohexane-1,1'-indene]-2,5-diene analogues: Sivarami Reddy, Gangireddy Venkata; Umesh C Narkhede; Vinod D Jadav; Gangu Naidu; Yamini Bobde; Balam Ghosh; ChemistrySelect; (7 Nov. 2018); DOI: 10.1002/slct.201802675
  50. The Structural and Surface Modification of Zeolitic Imidazolate Framework Material Towards CO<sub>2</sub> Storage and Reduction: Payra, Soumitra; Challagulla, Swapna; Chakraborty, Chanchal; Kartick Tarafder; Ghosh, Balam; Roy, Sounak; (New Journal of Chemistry) (2018) DOI: 10.1039/C8NJ04247K [IF: 3.21]
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  52. Design, Synthesis and Biological Evaluation Histone deacetylase 3 inhibitors as Promising Treatment Strategy for Cancer: Prakruti Trivedi Nilanjan Adhikari, Sk. Abdul Amin, Tarun Jha, Balam Ghosh; European Journal of Pharmaceutical Sciences: 124 (2018) 165–181: doi.org/10.1016/j.ejps.2018.08.030. [IF: 3.77]
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  54. Class I Histone Deacetylase Inhibition by Tianeptinaline Modulates Neuroplasticity and Enhances Memory: Wen-Ning Zhao, Balam Ghosh, Marshall Tyler, Jasmin Lalonde, Nadine F. Joseph, Nina Kosaric, Daniel M. Fass, Li-Huei Tsai, Ralph Mazitschek, Stephen J. Haggarty; ACS Chem Neurosci. 2018 Jun 22. doi: 10.1021/acchemneuro.8b00116. [IF: 4.21]
  55. Designing potential HDAC3 inhibitors to improve memory and learning: Sk. Abdul Amin, Nilanjan Adhikari, Tarun Jha, Balam Ghosh. Journal of Biomolecular Structure and Dynamics. 2018 Jul 25:1-25. doi: 10.1080/07391102.2018.1477625; [IF: 3.12]
  56. Design, Synthesis and Anticancer Activity of Novel Quinone Bearing Carbamyl  $\beta$ -Lactam Hybrids: Nagaraju Payili, Satyanarayana Yennam, Santhosh Reddy Rekula, Challa Gangu Naidu, Yamini Bobde, Balam Ghosh; Journal of Heterocyclic Chemistry: 17 April 2018, <https://doi.org/10.1002/jhet.3169> (Wiley)
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  58. Mangali S, Bhat A, Udumula MP, Dhar I, Sriram D, Dhar A. Inhibition of protein kinase R protects against palmitic acid-induced inflammation, oxidative stress, and apoptosis through the JNK/NF- $\kappa$ B/NLRP3 pathway in cultured H9C2 cardiomyocytes. J Cell Biochem. 2018 Sep 27. doi: 10.1002/jcb.27643.

### III. Conferences attended/papers presented:

- Yogeeswari.P, Multiple crystal structure modeling in structure-based drug discovery: Case studies on successful diverse lead identification. 18th International Conference on Medicinal and Pharmaceutical Chemistry, 18-19 October 2018, Dubai.
- Sajeli Begum. A, GPS-Aided Study of Larval Indices of Aedes aegypti and Analysis of Risk of Dengue Outbreak. Interdisciplinary Conference on Healthcare and Technical Research, Manipal. Oct 29-31, 2018
- Sajeli Begum. A, Extraction and purification of bromelain from pineapple waste. National Symposium on "Emerging Environmental Challenges: An Engineering Approach (EEC-2018)", BITS-Pilani, Hyderabad Campus, India, 16th Feb 2018



- Sajeli Begum. A, Tumor Necrosis Factor- $\alpha$  inhibitory activity of *H. pinifolia*. 24th ISCB International Conference, Manipal University, India. 11-13th Jan 2018
- Sajeli Begum. A, Analysis of chemical constituents of *Oldenlandia umbellata*. 24th ISCB International Conference, Manipal University, India. 11-13th Jan 2018
- Sajeli Begum. A, Natural Diketopiperazines as TNF  $\alpha$  and IL 6 inhibitors. Pharmacology 2018 – British Pharmacological Society, London, UK. Dec 18 – 20, 2018
- Sajeli Begum. A, 7,8- Dihydroxy-4-methyl coumarin as pro-inflammatory cytokine inhibitors. Pharmacology 2018 – British Pharmacological Society, London, UK. Dec 18 – 20, 2018.
- Anjana Saju, Srijanaki Paravastu Pattarabhiran, Kanchan Sonawane, Raghuraman Manimaran, Girdhari Roy, Shubhmita Bhatnagar, Venkata Vamsi Krishna Venuganti. Transcutaneous delivery of tetanus toxoid antigen using calcium phosphate nanoparticles entrapped dissolvable microneedle patch. Nanobiotech 2018, 24th - 27th October, 2018, New Delhi.
- Sudeep Kumar Gade, Richard Hoskins, Stephen Rimmer, Prashant Garg, Venkata Vamsi Krishna Venuganti. Corneal penetration of functionalized poly(N-isopropylacrylamide) (PNIPAM) polymers. ARVO Annual Meeting, 27th - 29th April, 2018, Hawaii, USA.
- Shubhmita Bhatnagar, Pooja Kumari, Srijanaki Paravastu Pattarabhiran, Venkata Vamsi Krishna Venuganti. **Zein Microneedles for Delivery of Gemcitabine. CRS India Chapter, Feb' 24-25, 2018, Mumbai, India.**
- Balaram Ghosh, Modified Albumin nanoparticles for the delivery of Curcumin in cancer: Bobde Y, Kumari P, Biswas S, Ghosh B: 16th International Symposium organized by Controlled Release Society (CRS) Indian Chapter, Mumbai 400 059, February 23-24 February, 2018
- Bhat A, Mangali SB, Wei X, Dhar A, Role of DNA polymerase in maintaining genomic instability in human cells, at 43rd annual meeting of Indian Society of Human Genetics.
- Nirmal J, Barathi V, Ravichandiran V, Venkatraman S, Agrawal R. Efficacy of Subconjunctival Aflibercept in Choroidal Neovascularization (CNV) Mice Model. Presented in ARVO annual meeting held in Hawaii, USA, May 2018.
- Ridahunlang Nongkhaw, Vaidehi Garg, Gaurav Jain, Jayabalan Nirmal. Transporter Targeted Ocular Delivery system to improve ocular bioavailability of drugs. Indian Eye Research Group (IERG) annual meeting (ARVO, Indian chapter), Hyderabad, July 2018

#### IV. Invited Talks given by BITS faculty:

- P. Yogeewari, Chief Guest and Speaker on "Therapeutic Intervention of Migraine Pain, a Drug Discovery Approach" at a one week Faculty Development Programme on Recent Trends in Drug Discovery and Targeting Drug Delivery System in associate with APTI, Telangana, 1-6 October 2018, Hyderabad, India
- P. Yogeewari, Resource Person and Speaker on "Drug discovery tools using crystal structure analyses: Case studies" at Pharmacy Council of India sponsored continuing education programme (CEP) held on 10-12 September 2018, Sultan UI-Uloom College of Pharmacy, Hyderabad, India.
- P. Yogeewari, Invited speaker on "Cancer Research at BITS-Pilani, Hyderabad campus, Centre for Human Diseases group activities" delivered at RICH Cancer Conference and Innovation Challenge Programme held on 21 August 2018 at CSIR-IICT, Hyderabad, India.
- Vamsi Krishna Venuganti, Dissolvable microneedle patch for co-delivery of doxorubicin and docetaxel to treat breast cancer. 7th Interdisciplinary Symposium on Materials Chemistry (ISMC), BARC, 6th December 2018, Mumbai.
- Vamsi Krishna Venuganti, Polymeric microneedles for minimally invasive drug delivery. Materials in Healthcare conference, GITAM University, 6th September 2018, Hyderabad.
- Vamsi Krishna Venuganti, Drug delivery techniques to improve corneal permeation. ARVO India 25th Indian Eye Research Group meeting, 29th July 2018, Hyderabad.
- Vamsi Krishna Venuganti, Introduction to biologics and their delivery aspects. National seminar on delivery aspects of biologics/macromolecules, KVSR Siddartha College of Pharmacy, February 16th 2018, Vijayawada.
- Vamsi Krishna Venuganti, Nanoparticles in drug delivery systems. Bio-adhyayan, National Seminar, Avanthi Institute of Pharmaceutical Sciences, February 2nd 2018, Hyderabad.
- Vamsi Krishna Venuganti, Effective delivery of therapeutics into and across the skin. AICTE sponsored faculty development program, Kakatiya University, January 10th 2018, Warangal.
- Nirmal J., Protein drug delivery for the posterior segment eye diseases. Indian Eye Research Group (IERG) annual meeting (ARVO, Indian chapter), Hyderabad, July 2018

- Nirmal J., Challenges and opportunities for corneal drug delivery systems, Synergy 2018: Cornea and Ocular Surface Symposium, March 24-25, 2018 (Sankara Nethralaya, Chennai, India).

#### V. Invited talks arranged in the department:

On 4th National Symposium on Current Trends in Pharmaceutical Science (CTPS-2018) held in the department on 27th October, 2018, various scientific talks were delivered by following industry experts and professionals,

- Mr. Dhiraj Chopra, Vice President - R&D at Amneal Pharmaceuticals
- Dr. Ravindra Pai, Vice President at Glenmark Pharmaceuticals
- Dr. BOBBY GEORGE, Vice President & Head Regulatory Affairs at Reliance Life Sciences Pvt. Ltd.
- Mr. Abhishek Ghosh PMP, Director - CDM at IQVIA
- Dr. Prasad Vure, Head, Global -Intellectual Property Management/IPR at Granules India Ltd.
- Dr. Dharma Rao Uppada, Clinical Pharmacologist & Principal Investigator at VIMTA Labs Ltd.

#### VI. Awards and recognitions won by faculty and students

- D. Sriram, awarded with "Most outstanding researcher award 2018", by career360, received from Shri. Prakash Javadekar, Hon'ble Union Minister of HRD, Govt. of India.
- P. Yogeewari, Recipient of Outstanding Research Faculty Award for the academic year 2017-18 certified by Careers 360 in the Pharmacology, Toxicology and Pharmaceutics discipline as one of the top 10 knowledge producers in India.
- Arti Dhar, won 2nd prize in poster competition held at 43rd annual meeting of Indian Society of Human Genetics CCMB Hyderabad (March 12-14).
- Nirmal J., received with ICMR International travel grant for attending ARVO 2018 conference in USA.
- Sudeep Kumar G. (Post-doctoral fellow) received DST travel award for presentation on "Corneal penetration of functionalized poly(N-isopropylacrylamide) (PNIPAM) polymers" at ARVO Annual Meeting, 27th - 29th April, 2018, Hawaii, USA.
- Samrun Nessa (PhD student) presented paper (Title: GPS-Aided Study of Larval Indices of Aedes aegypti and Analysis of Risk of Dengue Outbreak) in "Interdisciplinary Conference on Healthcare and Technical Research", Manipal and won First Prize under Healthcare category.
- Ridahunlang Nongkhaw (PhD student) received the best oral presentation award in Indian Eye Research Group (IERG) annual meeting (ARVO, Indian chapter), Hyderabad for the paper "Transporter Targeted Ocular Delivery system to improve ocular bioavailability of drugs".

#### VII. Faculty Development, International Collaboration & Industry Im mersion

- Nirmal J., attended Workshop on Drug Discovery and Development – Concept, Clinic and Commercialization (D3C3) conducted by Novartis and NIPER Hyderabad. 3 modules on Feb 16-17; Apr 13-14; Mar 9-10th, 2018, NIPER Hyderabad.
- Nirmal J., in collaboration with Prof. Uday Kompella, University of Colorado, USA submitted a fellowship grant to Association for Research in Vision and Ophthalmology (ARVO).

#### VIII. Significant new equipments/experimental facility added during the year: Nil

#### IX. Departmental asso ciation/club activities:

- A one-day intensive Workshop on "3D Modeling and Drug Optimization" has been organized on 28th October 2018 jointly by Zastra Innovations Pvt. Ltd and Department of Pharmacy, BPHC.
- Nostrum Vitae, the headliner event for ATMOS organized by the Pharmacy association on 26th October 2018. This was a unique quiz competition on therapeutics that requires the participants to put to use of their knowledge of the disease, patient condition, drug pharmacology, and human physiology to arrive at a rational therapeutic strategy.
- Department of Pharmacy and Central Analytical Lab have organized "Joint Certificate Course course on LCMS" in association with Spincobiotech Pvt. Ltd., The course was a two day program involving lectures and hands-on training during 3<sup>rd</sup> & 4<sup>th</sup> November, 2018.

#### X. Major maintenance, renovations or new construction reports: Nil

#### XI. Major equipments acquired during the year: Nil

**B3.10.12 Physics**

Number of faculty members

Senior Professors, Professors	03
Associate Professors	06
Assistant Professors	07
Lecturers	-
Visiting Faculty	-

Head of the Department: Prof. P.K. Thiruvikraman

Contact details:

Email: thiru@hyderabad.bits-pilani.ac.in

Phone: 040-66303508

Number of PhD Scholars: 14

- Full Time: 09
- Part-Time: 05

**I. Sponsored Research activities:**

Department has three ongoing projects worth Rs. 41.34 lakhs INR funded by DAE-BRNS and CSIR. In addition two other projects worth Rs. 70 lakhs are ongoing in which our faculty members are co-investigators.

**a) Ongoing projects**

S No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Fundamental Physics in strong gravitational field of neutron stars	Prof. Sarmistha Banik	DAE-BRNS	24.39650	2018-2021
2	Quantum Gravity in Rindler space	Dr. Prasant Samantray	CSIR	15.46	2016-2019
3	Quantum theory of Black holes and Quasinormal modes	Dr. Swastik Bhattacharya	BITS Pilani (RIG)	1.48	2018-2020

b) Projects sanctioned during the year: two

**II. Publications:**

1. "Properties of rapidly rotating hot neutron stars with antikaon condensates at constant entropy per baryon" Batra, N.D., Nunna, K.P., Banik, S., Physical Review C, 98(3),035801, 2018
2. "Radiation reaction in a Lorentz-violating modified Maxwell theory", Reddy, V.V., Gutti.S., Haque, A. Modern Physics Letters A, 33 (27), 1830010, 2018
3. "Spin transport in a Rashba coupled two-dimensional quantum ring: An analytical model", Gumber S., Bhattacharjee, A.B., Jha, P.K., Physical Review B, 98(20), 205408, 2018
4. "Photon statistics of radiation emitted by two quantum wells embedded in two optically coupled semiconductor microcavities", Ali, S., Bhattacharjee, A.B., Optik, 172, pp.588-595, 2018
5. "Controllable optical bistability and Fano line shape in a hybrid optomechanical system assisted by Kerr medium: possibility of all optical switching, Bhattacharjee, A.B., Hasan, M.S., Journal of Modern optics, 65(14), pp 1688-1697, 2018
6. "Unveiling the dual role of chemically synthesized Copper doped Zinc oxide for resistive switching applications", Boppidi, P.K.R., Raj, P.M.P., Challagulla. S, Banerjee, S., Kundu, S., Journal of Applied Physics 124 (21), 214901, 2018
7. "Is there an upper bound on the size of a black hole?", Bhattacharya, S., Shankaranarayanan, S., International Journal of Modern Physics D, 27(14), 1847011, 2018

8. "Effects of primordial magnetic field on the formation rate of dark matter halos", Cheera, V., Nigam, R. *Astrophysics and Space Science*, 363(5),93, 2018
9. S. S. Lenka, P. Char, S. Banik, "Properties of Massive Rotating Protoneutron Stars with Hyperons: Evolution and Universality", <https://arxiv.org/abs/1805.09492> Submitted to *Phy. Rev. D*

### III. Conferences attended/papers presented:

1. N.V.S.S. Seshagiri Rao, V. Satya Narayana Murthy "Formation of multivortex states in CoFe rectangular and square nanostructures", presented in international conference on magnetism and magnetic materials 2018 held at NISER, Bhubaneswar.
2. Study of photon blockade effect in double quantum dot in a semiconductor microcavity, M. Singh, P. Jha and A. B. Bhattacharjee, *Optical Society of India-International Symposium on Optics (OSI-ISO 2018)*, 19-22 Sep. 2018, I.I.T Kanpur, OSI-ISO 2018 Manuscript No. 107, page 226-232, Book of Abstracts.
3. Dynamics of non-equilibrium two-mode Dicke model, A. B. Bhattacharjee and Deepti Sharma, *Optical Society of India-International Symposium on Optics (OSI-ISO 2018)*, 19-22 Sep. 2018, I.I.T Kanpur, OSI-ISO 2018 Manuscript No. 8, page 55-59, Book of Abstracts.
4. Nobel metal oxide nano-particles for conservation and preservation of wall paintings, S. Dudeja, A. B. Bhattacharjee et al., *Conference on preventive conservation and management of wall paintings in historic buildings*, 16-17 Oct. 2018, Indira Gandhi National Centre for Arts, New Delhi.
5. Application of nano-materials for preventive conservation, S. Dudeja and A. B. Bhattacharjee et al., *International conference on frontiers at Chemistry-Allied sciences interface (FCASI-2018)*, University of Rajasthan, Jaipur, 21-22 Dec. 2018. Poster No. A-434.

### III. Invited Talks given by BITS faculty:

1. Cellulose - Ferroelectric composites nexus for capacitor and environmental application (Invited Talk) , B.HariharaVenkataraman , 5<sup>th</sup> International Conference of Nanomaterials and Nanocomposites, VIT University, Chennai, India, February 8 - 10, 2018.
2. "Chances and Challenges for young researchers in Indo-German academic scenario", Invited talk by Aranya Bhuti Bhattacharjee at an event organized by German Academic Exchange Service under "Re-Discover Germany-Higher Education and Beyond", University of Hyderabad, 8th September 2018.
3. Invited Tutorial on Optomechanics by Aranya Bhuti Bhattacharjee in IIT-Kanpur, 19th September 2018.
4. Invited talk by Aranya Bhuti Bhattacharjee at International Symposium on Optics (OSI-ISO 2018), IIT-Kanpur, 20-22 September, 2018.
5. Invited talk by Aranya Bhuti Bhattacharjee at event organized by German Centre for Research and Innovation, University of Hyderabad, 31st November, 2018.
6. Invited talk by Aranya Bhuti Bhattacharjee at International Conference on Quantum and Atom Optics (ICQAO-2018), IIT-Patna, 16-18 December, 2018.
7. Lecture by S. Banik in the Foundation Course on Astronomy and Astrophysics at Astronomy Department, Osmania University, Hyderabad, August, 2018.

### IV. Invited talks arranged in the department:

1. "Nanoscale analysis of semiconductors and battery oxides using atom probe tomography" by Pritesh Parikh, alumnus of BITS and Ph.D student at University of California, Santa Barbara on 13<sup>th</sup> Dec., 2018
2. "The darkness that surrounds us", Prof. Subhabrata Majumdar, Tata Institute of Fundamental Research, on 14-11-2018
3. "Driven by quests: Hearing aids & polarized glasses for space-time ripples" by Prof. Tarun Souradeep Ghosh, Inter University Centre for Astronomy & Astrophysics on 15-11-2018
4. "Earth Abundant Thin Film Absorbers and Solar Cells" by Dr. Narayana Thota, Post-Doctoral Fellow, IIT Delhi, on 4th October, 2018
5. "How effective is field theory" by Prof. M. ShivaKumar, School of physics, University of Hyderabad on 27th September, 2018

6. "Challenges and Opportunities in Monojet Signatures at the Large Hadron Collider" by Dr. Amit Chakraborty, Post-Doctoral Researcher, High Energy Accelerator Research Organization Institute of Particle and Nuclear Studies, Japan, on 10<sup>th</sup> September, 2018
7. "The Universe under the grip of dark forces" by Prof. Patrick DasGupta, Delhi University, on 6<sup>th</sup> September, 2018
8. "Thermodynamic Geometry of Gauge/ Black Object Configurations in String Theory" by Dr. Bhupendra Nath Tiwari, INFN, Italy on 31<sup>st</sup> August, 2018
9. "Connecting Loop Quantum Gravity and String theory via Quantum geometry, by Dr. Deepak Vaid, National Institute of Technology, Surathkal on 14<sup>th</sup> August, 2018
10. "The hunt for QCD plasma: The primordial matter" by Prof. Raghunath Sahoo, IIT Indore, on 17<sup>th</sup> July, 2018
11. "Effective action in Quantum Gravity" by Mr. Sandeep Ashish, Alumnus of BITS and Ph.D student at IISER, Bhopal, on 16<sup>th</sup> March, 2018
12. "Single molecular Electronics: A new paradigm" by Prof. Ramesh Thamankar, VIT on 10<sup>th</sup> March, 2018
13. "Spacetime and Quantum Mechanics" by Prof. Ananth Sudharshan, Indian Institute of Science Education and Research (IISER), Pune on 23<sup>rd</sup> February, 2018
14. "Complex Langevin dynamics and large-N gauge theories" by Prof. Pallab Basu, International Centre for Theoretical Sciences, Bengaluru, on 22<sup>nd</sup> February, 2018
15. "Spin orbit effects in  $\beta$ -Tungsten" by Dr. Avyaya Narasimham, Post-Doctoral Researcher, National Aeronautics and Space Administration, on 6<sup>th</sup> February, 2018
16. "An Au-some cosmic explosion and its implications for 21<sup>st</sup> century Astronomy" by Prof. A. Gopakumar, Tata Institute of Fundamental Research on 8<sup>th</sup> January, 2018
17. "Sky watch Array Network System (SWAN)" by Prof. Avinash Deshpande, Raman Research Institute, Bengaluru, on 6<sup>th</sup> January, 2018

V. Awards and recognitions won by faculty and students:

1. Prof. Aranya Bhuti Bhattacharjee was appointed as "German Academic Research Ambassador" at DAAD Research Ambassador Meet, 22<sup>nd</sup> September 2018, New Delhi.

VI. Faculty Development, International Collaboration & Industry Immersion:

1. **S Banik** organised a national level event titled "Pulsar Astronomy with uGMRT Boot-Camp & Multi-Wavelength Neutron Star Workshop", January 3-8, 2018, at BITS-Pilani, Hyderabad Campus in association with Tata Institute of Fundamental Research, Mumbai. The four-day "uGMRT Boot Camp" was followed by a Workshop on "Multi-wavelength Neutron Star Astronomy".
2. The Department organized a two-day workshop on "Characterization and Modelling of Magnetic Materials" during July 2018. The workshop was organized in collaboration with the Magnetic Society of India.

VII. Significant new equipment/experimental facility added during the year: - NA -

VIII. Departmental association/club activities: - NA -

IX. Major maintenance, renovations or new construction reports: - NA -

X. Major equipment acquired during the year: - NA -

## B3.11 DIVISION/UNIT/CENTER-WISE ACTIVITY HIGHLIGHTS

### RESEARCH AND DEVELOPMENT

The education system offers several opportunities to members of faculty to pursue research and involve students at all different levels through specialized projects, in the chosen research area. Research is promoted in the institution through the faculty development scheme and by encouraging faculty members to obtain funding from national and international agencies for sponsored research projects and to provide consultancy services. Presently, there are **08** faculty members and **311** research scholars, pursuing Ph. D. programs in identified thrust areas.

#### Ph.D. Qualifying Examination

Ph.D. qualifying examination was conducted at Hyderabad campus during the two semesters of 2018. 77 candidates were declared successful in this examination.

There are 32 research projects funded by various National and International funding agencies for about Rs. 7,16,54,045/- Details of approved research projects are enclosed in **Annexure 6** (Part B3).

#### Central Facilities Report:

#### LIBRARY

The library is very spacious with 45000 sqft area in two floors, fully air-conditioned, with modern and comfortable furniture for the users. Library has a seating capacity of 515 readers. It remains open from 0900 to 2300 hrs. on all working days, except National Holidays. During the weekends and other holidays, the library will work from 0900 to 1700 hrs. During the examination the library is open till 2 am (midnight).

The library is using KOHA Library Management Software for all its housekeeping activities. The library internet site has got the Web OPAC (Web enabled Online Public Access Catalogue). A facility on KOHA Web OPAC includes advance search options for books, journals, theses, CDs etc. The library site has been linked with the institute home page for external access. Students can access the library catalogue and the e-resources from their hostel rooms through LAN.

**RFID Technology** : The Radio Frequency Identification (RFID) Technology for the books and self check-in / check-out facility is available. The key benefits of RFID Technology are:

- Quick & Efficient Circulation Operations
- Enhanced Security for Library Items
- Seamless Inventory Management
- Emerging Technology Experience for Library users

The library renders standard services like issuing of books; attending to reference queries, providing photocopies, inter library loans, etc. for the faculty and students of the institute. The following are the highlights.

**The Library Committee** : The Library committee is appointed by the senate comprising faculty representatives from each department. There are 12 members are there in the committee. The committee meets periodically and works very closely with the library in resources selection and co-ordinate the requirements of the department. The Librarian is the chairman of the committee.

#### Acquisition Section

The Library has a collection of 37300 volumes and 1025 Springer engineering e books. 3490 new volumes were added to the existing collection this year in different disciplines. These include emerging areas like Lean Technology, Leadership, Digital Libraries, Earthquake Engineering, Wireless Communication, Signal Processing, Robotics, Nano-technology, Micro-electromechanical Systems (MEMS), Bio-informatics, Biotechnology, Geographical Information Systems, Network Security, Embedded Systems, Grid Computing, Pervasive Computing, Software Testing and Data Warehousing/ Mining. A good number of fiction, general reading books, and case studies in Management, latest editions of handbooks, encyclopedias, yearbooks and books which are useful for campus placement were also added this year.

#### E-resources

Access to over 8944 e-journals and other important websites have been provided on the library site. E-journals of the following publishers were made available:

- American Chemical Society
- American society of civil Engineers (ASCE)
- American Society of Mechanical Engineers (ASME)
- American Journal of Physics
- IEEE Explore

- Science Direct
- ACM
- SciFinder
- Scopus
- JSTORE
- IOP (Institute of Physics)
- Nature

**Journals:** Presently the Library subscribes to 84 printed journals/magazines including foreign journals. Useful articles, news, newspaper clippings are displayed on the notice board for the information of the readers. Besides, articles authored by institute faculty are displayed in a prominent place in the library.

#### Other Services

1. The library continues to keep the readers informed every week through regular display of all the books added to the library. A list of weekly/monthly additions is also made available to readers on the library site and also through e-mail to the entire faculty. Special topical displays are also organized periodically.
2. The library facilitates in the Earn While You Learn Programme of the Institute wherein students assist in the library jobs like book data entry, spine labeling of books, bar-coding of books etc.
3. Organized a Book Festival in association with Book Syndicate, our campus book store in October 2018. During the Book Festival faculty members were encouraged to suggest books for the library.
4. Free wireless internet (WIFI) access is available in the library
5. During the examinations the library working hours has been extended till 2 am (midnight)

#### Library Statistics

The Library collection is growing steadily. The following table shows some of the significant statistical data:

1	Current library holdings	37300
2	Average number of books issued per day	180
3	Average number of readers visiting the library per day	1260
4	Books added during the year	3490
6	Number of print Journals subscribed	84
7	E journals made available on library site	8944
8	CD-ROM Collection	1300
9	Educational Video/DVD Collection	102
10	Total number of reading seats in the library	515
11	Library membership	5050

#### WORKSHOP

The Central Workshop provides training to students and caters the maintenance & fabrication needs of the Institute. Through the course "*Workshop Practice*", all first degree students are trained to acquire the necessary skills related to various manufacturing processes like machining, fitting, carpentry, smithy, foundry, sheet metal, electroplating, welding, etc. and two computer oriented exercises, a CNC Simulation software (by CIMCO) and MASTER CAM, and a Manufacturing Simulation software called FlexSim. Further, students of B.E. (Mechanical Engineering) and B.E. (Manufacturing Engineering) are given in-depth training in various courses such as "Production Techniques – I" and "Production Techniques - II", "**Manufacturing Processes**" and "**Computer Aided Manufacturing**". Apart from routine maintenance and training, the workshop also provides fabrication services pertaining to the project works of students and also offers technical support for TBI works.

The workshop comprises of various sections namely *Machine shop, Welding, Electroplating, Fitting, Smithy, Sheet Metal, Carpentry, Foundry and Metrology*. Major equipment include 1 Vertical Machining Center (Bridgeport VMC GX600), 1 EDM Wire cut facility (Model: SPRINT CUT), 1 CNC Lathe (Model PTC-200), 1 Hydraulic press with computer control (40T), 9 Lathes, 2 Shapers, 1 Radial Drilling Machine, 1 Universal Milling Machine (Batlibai make) with indexing attachment, 1 Cylindrical Grinding Machine with internal grinding attachment, 1 Surface Grinding Machine, 1 Tool and Cutter Grinder, 1 Pedestal Grinder, 1 Slotting Machine, 1 Power Shearing Machine (Vivek Brand), 1 Portable Drilling Machine, 1 Injection Moulding Machine, 1 TIG Welding Machine, 1 MIG Welding Machine, 1 Spot Welding Machine, 1 Universal

Milling Machine (BFW make), 1 Shaper (Sagar make), 1 Surface Roughness Tester (Mitutoyo make) and 1 Hydraulic Bulge Test Rig, 1 Electro Chemical Machining (ECM) setup, 1 Lathe Tool Dynamometer, and 1 Rotational Moulding Machine, 1 M TAB CNC Lathe Trainer, 1 3-D Coordinate Measuring Machine (CMM) “Spectra”, 1 HMT PRAGA Universal Tool & Cutter Grinding Machine, 1 FRITSCH Vibratory Sieve Shaker, Magnesium metal stir casting Furnace, 1 Milling tool dynamometer, 1 Drilling tool dynamometer, 1 Lathe tool dynamometer, 1 200TON capacity Compression testing machine, Mold Testing Equipment, 1 Open-hearth furnace for smithy, 1 Gas-fired furnace for foundry, 5 Wood-working Lathes, 2 Arc-welding equipments, 1 Oxy-Acetylene gas welding equipment, 1 Gauge planner for wood works, Electroplating equipment (zinc coating), 1 Power Hacksaw and metrology instruments.

In addition to the existing machinery, new equipment/facilities including 1 Sand Muller (Capacity-75kg), 2 Panther make lathe machines, 1 HMT make High Speed Precision Machine and two 3D Printers, 13 Lenovo make desktops, a CNC Simulation software by CIMCO (20 Licenses), and a NC programming software called MASTER CAM (15 Licenses) were added to the Central Workshop. Besides, during the ongoing academic year 3 Panther make Lathe machines, 1 Plasma arc cutting machine, 3 AC Welding Transformers, 1 Powder mixing unit and 1 Trolley were also procured by the Central Workshop.

### COMMUNITY WELFARE UNIT

The community welfare unit (CWU) coordinates the welfare and recreational activities of the faculty and staff members of the institute and also the functioning of medical center. Clinic management software has been installed in the medical center to streamline patient information and records. A lady doctor, a male nurse and a lab technician has joined the medical center last year. The medical center also has a nurse on duty present 24 x 7 to attend to patients. A dentist visits once a week and a gynecologist visits twice a week to the medical center.

The community celebrated a week long Ganesh Puja and New Year. The celebrations ended with cultural performance from kids and adults in the community in the auditorium. Professionals visit the campus to teach musical instruments, classical dance and classical music. Community Sports competition were organized for the third time for community members. Various schools from the city visited the campus to make presentations regarding their curriculum and extracurricular activities and also had an interaction session with parents to answer their concerns **and queries. The community also celebrated children’s day**, where faculty and staff children participated in different games in the children park for the event.

The community recently expanded the space for JGI School from 3 rooms to six rooms and provided in fracture facility to the teaching staff of the School including new water dispensers, desktop, table, air conditioner etc. The community also expanded the medical center facilities by providing new diagnostic kits, air conditioners, water dispensers and BSL training programmes for medical doctors. Moreover, gifts were distributed among the house keeping staff on the occasion of Independence Day.



Childrens Day celebration



New Year Celebrations



### B3.12 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS

#### No. of Honours and Awards to Students

##### Institute & Other Scholarships

	Merit	Merit Cum Need	Inspire	KVPY	NTSE	PM Scholar ship	BSNL	Railway	BITSAA (Ashok Agarwal)	FIITJEE	Others
2012-13	154	1337									
2013-14	159	1247							2		
2014-15	159	1123							2		
2015-16	237	1463	20	1	20	2		2	2		16
2016-17	226	1421	33	4	35	5	3	6	2	1	18
2017-18	245	1672	9	1	9	3	2	4	6	3	11
2018-19			25	2	37	7	4	9		2	14
<b>TOTAL</b>	<b>1180</b>	<b>8263</b>	<b>87</b>	<b>8</b>	<b>101</b>	<b>17</b>	<b>9</b>	<b>21</b>	<b>14</b>	<b>6</b>	<b>59</b>

#### HONOURS

##### AWARD:

1. MR. UJJAWAL AGGARWAL, ID NO.: 2014ABPS0887H WCB **ROBOTICS WON THE \$ 5,000 PEOPLE'S CHOICE COMPETITION** SPONSORED BY SOFI. IN 17TH YEAR RICE BUSINESS PLAN COMPETITION GOT SEVENTH PLACE AND MORE THAN 450,000 DOLLAR IN INDIVIDUAL PRIZES, INCLUDING A 300,000 DOLLAR PRIZE AWARDED BY THE GOOSE SOCIETY OF TEXAS AND 150,000 DOLLAR TIE HOUSTON ANGEL GROUP INVESTMENT PRIZE.

WCB ROBOTICS IS DEVELOPING WINDOW CLEANING ROBOTS FOR CLEANING THE FAÇADE OF HIGH-RISE SKYSCRAPERS. MORE THAN 140 CORPORATE AND PRIVATE SPONSORS SUPPORT THE BUSINESS PLAN COMPETITION.

2. Ms. TANIA DUTTA, ID No.: 2016A5PS0748H DR. P YOGESHWARI, NEW GENERATION PERISCOPE FRUIT PICKING DEVICE Gandhian Young Technological Innovation (GYTI) Appreciations 2018 with Funding of Rs.100000.00 for further Research.

##### ACHIEVEMENTS:

- 1 Mr. PIYUSH RATH, ID No.: 2015A1PS0714H RWTH Aachen University, Germany
- 2 Mr. VIDHATE ADITYA LAXMAN, ID No: 2014B5A70775H, Max Planck Institute for Astrophysics, Germany
- 3 Mr. YASH RAJ JAIN, ID No: 2014B3A70604H, Max Planck Institute for Intelligent Systems, Tübingen, Germany
- 4 Ms. AAYUSHI SHARMA, ID No: 2014B2A30910H, National Tsing Hua University, Taiwan
- 5 Mr. NIKHIL IYER, ID No: 2015A7PS0139H Technische Universität Darmstadt, Germany
- 6 Mr. ANIRUDH SRINIVASAN, ID No: 2015A7PS0382H Viterbi-India Program
- 7 Mr. V THEJAS, ID No.: 2015A7PS0142H DAAD-WISE University of Stuttgart, Germany
- 8 Ms. ADITI SHARMA, ID No: 2015B4A70701H DAAD-WISE University of Kaiserslautern, Germany
- 9 Ms. ADITI GHOSH, ID No: 2014A7TS0055H at NTU, Singapore
- 10 Mr. V R DINESH KUMAR, ID No: 2014B5AA0771H Physical Research Laboratory, ISRO
- 11 Mr. RAJAT GUPTA, ID No.: 2015A1PS0465H University of Waterloo
- 12 Mr. SHAKTI PRASAD PADHY, ID No: 2014A1TS0547H Karlsruhe Institute of Technology, Germany & Won 2<sup>nd</sup> Prize in PADMASRI Dr. B RAJU Quiz competition organized by IChE, Hyderabad
- 13 Mr. YASH LATA, ID No.: 2014A1PS0632H won 1<sup>st</sup> Prize in elocution organized by IChE, Hyderabad.
- 14 Mr. PIYUSH CHAWLA, ID No: 2014A7TS0120H University of Bonn, Germany
- 15 Mr. S SIDDHARTHA RAMAN, ID No: 2015AAPS0572H University of Southern California, USA

- 16 Mr. SAINATH SURYAKANT MAMDE, ID No: 2014A1TS0595H University of Michigan.
- 17 Mr. PIYUSH LALWANI, ID No.: 2015A4PS0272H Université de Sherbrooke
- 18 Mr. GAJRAJ SINGH RATHORE, ID No.: 2015A5PS0869H Université de Sherbrooke
- 19 Mr. ANSH RUPANI, ID No.: 2014A3TS0825H Technische Universität Dresden, Germany
- 20 Ms. DIVYA JAIN, ID No.: 2014AAPS0217H Technische Universität Dresden, Germany
- 21 Mr. KSHITIJ SHRIVASTAVA, ID No.: 2014AAPS0493H Technische Universität Dresden, Germany
- 22 Mr. SARTHAK JAIN, ID No.: 2015A3PS0336H KAIST - Korea Advanced Institute of Science & Technology South Korea
- 23 Mr. ARVIND SRINIVASAN, ID No.: 2014B3A70381H MITACS Globalink University of Regina Canada
- 24 Mr. ADITYA NARAYAN, ID No.: 2014A4PS0343H University College Dublin, Ireland
- 25 Mr. KARTHIK BALI, ID No.: 2015A4PS0851H, Polytechnique Montréal University in Montreal, Canada
- 26 Ms. SATEJA PARADKAR ID No.: 2014A5PS0804H Massachusetts Institute of Technology & Ph.D. in Yale University
- 27 Mr. VIBHU AGRAWAL ID No.: 2014B4AA0745H University of Pennsylvania
- 28 Mr. PARAKH M GUPTA ID No.: 2014B5A40564H University of Pennsylvania
- 29 Mr. ABHISHEK DAVE 2013B1AB0844H John Hopkins Baltimore, Maryland
- 30 Mr. LAKSHAY SETHI, ID No.: 2013B1A40691H Duke University, Durham
- 31 Mr. V ARVIND RAMESHWAR, ID No.: 2014AAPS0299H 304 rank GATE (Masters in IISc Bangalore)
- 32 Mr. TANMAYA SHEKHAR DABRAL, ID No.: 2014A7PS0138H Funded masters in University of Wisconsin Madison
- 33 Ms. AMALA SANJAY DESHMUKH, ID No.: 2014A7PS0541H Funded masters in University of Wisconsin Madison
- 34 Mr. HARIHARAN R, ID No: 2015A1PS0784H School of Chemical and Process Engineering, University of Leeds, UK
- 35 Mr. R. VAIDHISWARAN, ID No.: 2014A1PS0529H Thesis & Ph.D., Imperial College of London
- 36 Mr. SHASHANK GUPTA, ID No.: 2014A2PS0584H Polytechnic University of Milan (Fully funded Masters & RA)
- 37 Mr. RUCHIK MISHRA, ID No.: 2015ABPS0524H Polytechnic University of Milan, Italy
- 38 Ms. AHANA GHOSH, ID No.: 2014B4A70525H Max Planck Institute for Software Systems, Saarbrücken, Germany
- 39 MR. SHAIK WASEF, ID NO.: 2014AAPS0339H KING Abdullah University of Science and Technology Saudi Arabia
- 40 MR. MOHIT UPADHYAY, ID NO: 2014B5A30766H Nanyang Technological University, Singapore
- 41 MR. VIGNESH SITARAMAN, ID NO.: 2013B5A10727H Instituto Superior Técnico Public University in Lisbon, Portugal Funded Summer School at School of Plasma and Nuclear Physics.
- 42 Mr. PARAB SHARDUL SHAILENDRA, ID No: 2015A7PS0093H Goethe University Frankfurt, Germany
- 43 Mr. PRANAV KUMAR ASTHANA, ID No: 2015A7PS0961H University of Kaiserslautern, Germany

Details of extension services/activities, societal engagements, continuing education programmes, sports and games, cultural activities etc. undertaken by the Institution.

#### Technical Senate:

##### **Mechanical and Manufacturing Engineering Association (MEA):**

MEA conducted several workshops and events throughout the past semester that includes a talk from Shri. Vasudevan Gnana Gandhi on Rocketry, ATMOS-18 events consisting of 3 competitions and 3 workshops, release of Sparkplug-18 magazine and a factory visit to HBL's manufacturing plant. Following are the glimpses of the events organized by MEA.

The students of BITS Pilani, Hyderabad Campus were privileged to have Dr. Vasudevan Gandhi, a Padma Shri awardee and a renowned scientist in the field of rocket development in India come to deliver a talk on

the scenario of the development and advancements of technology. Having headed various projects at ISRO and being a member of the Aeronautical Society of India, Dr. Gandhi has a huge amount of experience in the aeronautical field. Dr. Gandhi has worked in projects related to the Geosynchronous Satellite Launch Vehicle and the up-gradation of the VIKAS Engine. The presentation gave an overview of rocket development in India over the years and dealt with the development and designing of the different kinds of motors required for rocket propulsion. The first successful form of motors was the solid motor. These solid motors were easy to handle, less complicated than liquid systems and could withstand high temperatures easily. Liquid motor systems can be tested prior to use, whereas for a solid rocket motor rigorous quality management must be applied during manufacturing to ensure high reliability. He also spoke about the space missions carried out by India like the SLV-3, ASLV, GSLV, PSLV and about the upcoming developments in the field of rocket development and designing.

ATMOS, the technical fest of our college, had many competitions and workshops organized by MEA. Workshops for technical skills related to BS4 Engine, Aeromodelling, 3D printing were organized, which had active participation from students of other colleges other colleges. The BS4 engine workshop was related to building efficient, clean engines which would help in reducing the number of pollutants and harmful gases emitted by the same, thereby lowering air pollution and improving the quality of air. The aeromodelling workshop dealt with aviation related to smaller scale objects like Radio Controlled Aircrafts, Ornithopters etc. The aerodynamics of different aircraft and airplanes were explained, and these were then used to construct an aerodynamical model using Styrofoam. In the 3D printing workshop, the software used in 3D printing was talked about in detail and the applicability of 3D printers for manufacturing on a large scale was also discussed. This was then followed up by a demonstration, in which a couple of samples were made using the 3D printer. Competitions such as MiniGP, Prodigal Designer and paper presentation were also organized. In MiniGP, participants had to race their remote-control based IC engine cars in 3 events: drag, time trial, and race. The teams who would complete the laps in the best possible time would qualify for a final race. The design skills and application of real-world driving skills to the miniature cars were put to test. The competition Prodigal Designer had 2 rounds-an online round and a **spot round**. **Round 1(Online round) tested the participants' basic knowledge of CAD and in round 2(Spot round)**, participants were judged based on the quality and number of elements they could draw. In the paper presentation competition, the participants had to describe their innovative ideas to solve everyday problems or find efficient alternatives to already existing devices to solve these problems. Participants were judged based on the feasibility, cost, efficiency and practical success of their project.

The students were given an opportunity to visit an HBL factory in Shamirpet where they were taught about the various processes that took place in the factory. Their factory produces only pocket plate batteries, which involves many processes in itself. Their batteries are Ni-Cd based. Their factory has a building specifically for preparing the electrolyte of batteries (which is KOH in this case). The electrode plates are initially made in smaller units (Ni being the cathode) and are sandwiched between iron plates with plastic surrounding it for insulation purposes. Both the plates are stacked in the plastic casing filled with KOH such that the effective E.M.F. of the batteries became 1.2 V. All in all, the factory visit was a success and educative. Such trips are necessary for the overall and complete understanding of the topics students learn in classrooms.

Lastly, MEA also had its annual magazine released near the end of the semester summarizing and **concluding the entire year of all of MEA's events, workshops**, and competition conducted in the year 2016-17. It also contains the record of all the members of the Vulcan team and its work and achievements. Some details about the Hyperloop meet and IHMTC meets and the students involved in its success. List of several student projects going on in the campus, list of companies involved in placements, list of students pursuing higher studies both on-campus and abroad. It also includes the details of the faculty members, the list of the names of the members of MEA and the batch snaps of the 2013-14 batch completing their bachelor degrees and the 2015-16 batch completing their master's degree.

#### Spectrum:

The first event conducted was Physics Student-Faculty Interaction which helped the freshers to get insights about the physics department and the opportunities available in the field of physics.

There were two pre-ATMOS events namely PHYgure IT OUT and PHENOMANIA.

PHYgure IT OUT: There were many pictures put up and the teams had to figure out the physics behind them. The event saw the participation of more than 100 students and two teams emerged victoriously.

PHENOMANIA: The teams had to answer questions based on the content provided. This event tested the expanse as well as the agility of thinking. More than 30 teams participated in the event.

There were two ATMOS events: Time Vs Physics and Paper Presentation.

Time Vs Physics: Time unfolded what physics could do. The event had two rounds. The first round saw humongous participation of 102 teams. The team had to solve 50 questions in 45 minutes. Out of them, 8 teams were selected and in the second round, there were a different category of questions namely crosswords, puzzles, logic, experiments and video probes.

The Physics Association of BPHC also proudly presented its first ever blog series: Prism. This initiative has been taken up by Spectrum to help improve the Physics culture on campus by bridging the gap between sophisticated research and the layman's world. The beauty of this initiative lies in the way the content is made and presented. Essentially, it uses individual research done by students and forms a version of that experiment or theory which beginners can easily understand. This is then put across a large audience for critical analysis. The blog acts as a means to connect Physics students present on campus and subsequently, develop a tangible research culture.

Physics Department has also conducted various seminars and talks. Some exciting talks have been The "Darkness that Surrounds Us", "Driven by quests: Hearing aids & polarized glasses for space-time ripples" and "How Effective is Field Theory?"

## 1. Automation and Robotics Club:

### ➤ Workshops

- Line Follower Workshop - ARC conducts the first technical workshop each year, introducing people to robotics. The workshop, conducted in two days over a total period of 14 hours, saw a participation of 343 students.
- iNavigate Workshop - This workshop, held in collaboration with IEEE, dealt with building a wireless hand-gesture controlled robot. More than 150 students participated.
- Quadcopter Workshop - ARC taught at the Quadcopter Workshop conducted over two days, and successfully got 63 teams to make flying, fully functional quadcopters.

### ➤ Events

- During ATMoS, ARC conducted PastForward - a unique mind-bending robotic maze challenge, which received extensive positive criticism from participating teams on the design and logistics of the game.

### ➤ SUTC Projects

- Three teams from ARC were funded for their projects under SUTC 2017-18. One team has successfully completed their project, which is the first hexacopter of BPHC. Two other projects are under progress.

### ➤ SIP

- Six teams from ARC secured funding under SIP this semester and have been putting in efforts into making their innovative projects a reality.

### ➤ Competitions

- E Yantra Robotics Competition - 3 teams qualified for the semifinal stage of eYRC conducted by IITB and have got free Robotics kits from IITB to work on their bots.
- Texas Instruments IICDC - One team qualified for the quarter final stage of this technical startup competition conducted by TI in collaboration with IIM-B and secured funds of \$200. They were one of only 300 companies selected out of more than 10000 entries.

### ➤ Other Engagements

- Five students of ARC had the privilege of meeting Dr Idaku Ishii and some of his PhD students from Hiroshima University. Dr Ishii discussed and shared facts about his research work, which was a humbling experience.

## 2. WALLSTREET Club:

1. QUIZZES: The club had conducted quiz after the inductions with provided material to understand the **member's ability** in finance background.
2. GROUP DISCUSSIONS: The club has conducted two interactive discussions with panel of students with interest and knowledge of the topic, first discussion was on the depreciating value of rupee and possible causes; Second discussion being on industry analysis and significance of BCG (Boston consulting group) BOX.

3. **LIVE SOCIAL MEDIA DISCUSSIONS:** As to further reach everyone and increase their interactive skills we found having a discussion on private message groups to be helpful as everyone commented and expressed their views more freely.
4. **SESSIONS:** The club conducted a session on quantitative finance open for all where Mr. Himadri a research consultant in the field helped understand the process.
5. **WORKSHOPS:** The club with Economic Association conducted the six sigma certified workshop with good number of registrations.
6. **BLOG:** The club has started a blog with articles for finance enthusiasts, where articles are published from our editorial board.
7. **ATMOS:** The club conducted two Events and One Workshop for atmos:
  - 7.1. **ALPHATHON:** This event was based on making quantitative finance tools “alphas” to predict the market and prizes based on participant’s ability to do the same.
  - 7.2. **WALLSTREET SURVIVOR:** This event was conducted on a real life virtual trading platform “Trakinvest” where players had to maintain the most profitable portfolio of assets.
  - 7.3. **DATA SCIENCE WORKSHOP:** As data science has become the buzz word around we had a data science workshop powered by IBM.
8. **CASE STUDY COMPETITION:** The club conducted a case study challenge where the members were divided into groups and competed for the best solution on case studies.
 

The club has a google drive with almost all possible required material available to every club member to refer and learn about the financial background.

#### Ad Astra Club:

Ad Astra launched a blog named Spaced Out this semester ([www.bphcadastra.wordpress.com](http://www.bphcadastra.wordpress.com)). More than 10 blog posts have been published there.

There were two projects undertaken by the club this semester.

First is regarding radio astronomy. We built a horn antenna to study the H1 spectrum of the universe. The building phase has been completed this semester and analysis and testing will be carried out next semester.

The second is Astrophotography. The physics department got a new telescope this semester. We have been using it for astrophotography. The results of which are published on our facebook page. The second semester is always preferred for observational astronomy due to weather. Therefore, more sessions with the telescope will be held in the coming semester, including ones open to non-members.

There was one event conducted by the club during ATMOS named Fill in the Space which saw a participation of more than 50 people.

Few sessions of Weekly Discussions were held on various topics. One special session was held on radio astronomy by Yashas. Yashas on behalf of Ad Astra attended a 2-week workshop in Raman Research Institute (RRI) facility in Gauribidanur, near Bangalore. He learned various aspects of radio astronomy there and even got parts for our own project from RRI.

2 talks were held in collaboration with Seds Celestia, BITS Goa. One was held in September on Gravitational Physics and one in November on Black Holes. Further details on these can be found on Shoutbox.

#### Synopsis:

- **Get-together 2018 (fresher’s party) [10/09/2018]**
- T-shirt design competition (for department only)
- ATMOS bio paper presentation [26/10/2018]
- ATMOS Anatomy of Murder [27 and 28/10/2-18]
- Coffee with senior [one meet on 13/12/2018]

#### Alchemy:

##### (A) ATMOS Events:

- 1) **Snitch in Time:** A new event was introduced for the techno-management festival by the association this time. This was an event based on the backdrop story of the all time famous Harry Potter series and

had a prize money of 15k. The first round of the event was a simple quiz based on general chemistry questions and the second round was a hands-on lab-based round. It was a successful event which saw participation from over 60 teams.

- 2) Paper Presentation: Alchemy organised Paper Presentation for students to showcase their research work in front of experienced faculty members and chief guests, so as to give them a chance to not only present, but also to receive valuable feedback on their work.

#### (B) Pre-ATMOS Events:

1. Pictionary (19th September 2018): Alchemy kick-started its pre-ATMoS events with Pictionary. This game was inspired from the parent game that goes by the same name with just a little twist - this one had questions of increasing difficulty levels. Participants could come in teams of at most 3 people. Overall, the event witnessed a great turnout and had prize money worth 1.3k.
2. Chembola (24th September 2018): This was the second event lined up for all the chemistry fans out there by Alchemy. This was our version of the beloved game Tambola/Housie. This event too, like the previous event, witnessed a huge turnout and the prize money was 1.4k.

#### (C) Talks:

##### Departmental Seminars -

8th August 2018 - By Dr Subhas Ghosal on 'Ultracold Chemistry: A Laboratory of Quantum Gases'

##### Guest Lectures -

- Guest Lecture 1 - 23/08/18

By Dr Bhaswati Chatterjee on 'Designing of Unnatural Peptides and Application of Quantitative Proteomics'. The talk was on the synthesis of unique peptides and their applications. The scientist graduated and received her doctorate from IIT BHU and pursued her postdoc from IISc Bangalore and the Max-Planck Institute of Biochemistry, Munich, Germany. She is now a scientist at NIPER, Hyderabad.

- Guest Lecture 2 - 27/08/18

By Dr Raju Adepu on 'Synthesis and Chemical Proteomic Studies of Tag Free Photo-active Probes'. The talk was based on his research in studying the chemical properties of proteins using photoprobes. Mr. Raju is now associated with Tata Institute of Fundamental Research (TIFR), Hyderabad.

- Guest Lecture 3 - 7/09/18

By Dr Prasad P Phadnis on 'Organoselenium Compounds for Human Health Applications'. This was a talk on the anticancer and radioprotective properties of Organoselenium compounds. He is a scientist associated with the prestigious Bhabha Atomic Research Centre (BARC).

- Guest Lecture 4 - 11/09/18

By Dr Srinu Tothadi on 'Crystal Engineering: Design and Synthesis of Multicomponent Crystals and their Applications'. He is a world-renowned scientist in the field of Crystal Engineering and is a scientist associated with IISc, Bangalore, University of Liverpool and CSIR-NCL, Pune. He is now a scientist at NCL, Pune.

(D) Social Events : We organized several social events with the start of the new academic year to welcome new members into the Chemistry family.

- 1) Orientation for 2017 chemistry students: 9th August, 2017.

As the 2017 students entered the second year and were ready to begin their journey with the department, we organized an interactive session where they could get to know more about the professors, the courses and the ongoing work in the department. It was a light-hearted, informative session and the students enjoyed it thoroughly.

- 2) Freshmen orientation for 2018 chemistry students: 28th August, 2017.

This event was held as a welcome party for the batch of 2018-2023. The purpose of this event was that every "fresher" feels like an integral part of the BITS family and gets ready to take on the challenges of the year ahead. The event was diligently organized.

#### (E) Editorials:

- a) Chemazines:

Four Chemazines were released this semester, on various interesting topics, which can be broadly classified as chemistry in everyday life. Some very interesting facts such as the numbers at the bottom of plastic bottles and chemistry of perfumes were explored.

b) LOP Series:

To provide an insight into projects offered by the department and how our seniors have worked under the guidance of our experienced professors, the LOP experiences of two seniors, Aayushi Sharma, and Prakhar Gupta were published by us.

c) Teacher's Interviews:

This is a new initiative started by Alchemy to provide detailed information about the area of work as well as projects and opportunities to work under the professors of the Chemistry department.

**We published our first teacher's interview by Professor Ramakrishnan G.** explaining his work on photoresists, surface endothelialization, and nanoparticle lithography.

d) Elixir:

We also released our semesterly magazine, Elixir on 28th December, 2018. It had a bunch of mind-blowing articles, fun-filled games and significant information about this year's Nobel prize winners in chemistry.

3. SAE:

The Designers in the Design Club were no experts when they started out. By trial and error, by bettering our methods as we designed more and more items, we have learned. We believed that this precious experience would help in saving a lot of time of aspiring designers and showing them the right direction to head in. Weekly CAD design classes were conducted by our very own designers to help create better CAD designers on our campus. LOTUS is a software which is used for simulating the entire suspension system of our vehicle. Working with this software involves heavy calculations and a vast

technical background. Experts from our suspension subsystem thus decided to take classes for the common masses of BPHC to provide the information about this software and ensuring a sound knowledge of the Suspension subsystem. ANSYS is a software which is used for simulating various processes involved in general mechanics of things. Due to the wide Application of this software in various fields, we thought it would be beneficial for students from various branches to come together and get accustomed to This software so that it would be very beneficial for them in the future.

4. ACE:

1. Guest Lecture on 'Challenges and Opportunities in Chemical Engineering' by Dr. D. Phaneswara Rao (Ph.D. in Chemical Engineering from the University of Idaho, USA)

2. Pre-ATMOS Event-Chamber of Secrets (21/09/18)

3. Pre-ATMOS Event-MATCode (25/09/18)

4. ATMOS-Nephroplus Talk by Kamal Shah, Co-founder and Director of Nephroplus (26/10/2018)

5. ATMOS-Social Entrepreneurship: A Talk by BIRAC Social Innovators (26/10/2018)

6. ATMOS-Industrial Automation Workshop on PLC and SCADA (26th and 27<sup>th</sup> October 2018)

7. ATMOS-Ansys Workshop (27th and 28th October)

8. ATMOS-Cataclysmic Deductions (27/10/2018)

9. Guest Lecture on 'Challenges in Crude Oil and Natural Gas' by Mr. R. V. Saradhi, Kuwait Oil Company

5. CEA:

1. B.E Freshmen Faculty Interaction

Date: 30th August Time: 6 PM Venue: F102

It was an eventful evening as the Civil Engineering Association initiated the occasion for the freshmen of the branch to get introduced to the faculty and the staff who are going to be guiding them for the next four years. The platform was opened to the freshers as they came up on the stage and introduced themselves, and spoke about why they chose Civil Engineering and what they liked about it. After a lot of interesting but sometimes repetitive answers, because the juniors were (in no fault of theirs) a little intimidated, the head of department, Prof. Sridhar Raju came up on the stage with a warm introduction and shared a few words of wisdom in which he inspired and assured the students that Civil Engineering is one of the most up and

coming streams. He and all the faculty members emphasized that we as a branch, as a family are headed towards a brighter future.

## 2. A Webinar Session by Mr. Bal Kulkarni

Date- 7 September 2018 Time- 7:30 PM Venue- F-106

Civil Engineering Association hosted a live webinar session on 'Structures with Special Shapes' by Mr. Bal Kulkarni, Managing Director at Delcons Consultants India Pvt Ltd. The session commenced with Mr. Kulkarni showing various buildings, some of which have in course of time turned into monuments. Ranging from the grand Louvre Museum to something as trivial as a car showroom if we talk in context. He mentioned the various processes involved in the construction of a building highlighting how complex they can be. He talked about the factors like prevalent wind direction, soil and weather conditions that should be taken into consideration during planning. We also came to know about quite a few technical advancements that civil engineering has achieved. He showcased the true potential of Civil Engineering and how its definition has changed over time. He instilled in the audience a new approach to this branch and what all wonders can be done with it.

## 3. SOP Talk by Dr. Arkamitra Kar

Date : 10th September, 2018 Time: 6 pm Venue: F206

A good academic record is not all that you need for a foreign MS admit; you also need a proper Statement of Purpose that records all your achievements and laurels, so that you seem more valuable to the admission committee. Keeping this in mind, an interactive session was taken by Dr. Arkamitra Kar on how to write an SOP at 6pm on 10th September in F206. Dr. Arkamitra himself being a graduate from West Virginia University, has been helping students with the same for many years. Catering to around 30 students of varied disciplines, Dr. Arkamitra cleared common misconceptions about SOPs. He spoke about the kind of projects that attract attention in applications and the importance of reaching out to professors for Letters of Recommendation (LOR). Much stress was given to the style of writing being neither too sophisticated nor too informal. He also encouraged the junior students to start working on their own line of interest so that they find it easy to organise their SOPs in future. All in all, the session was informative and tackled the doubts of the students planning to apply for an MS degree in the near future.

## 4. M.E. Student -Faculty Interaction

Date- 12 September 2018 Time - 5:30 P.M. Venue - F-109

The meet initiated by the introduction of students and the teachers. The students spoke about their hobbies and interests. The teachers started a discussion about the new avenues of possible advancement in the field of Civil Engineering. Regarding transportation, they discussed about the transition from the conventional modes of transport to the modern systems like Hyperloop. The meet summed up with the teachers assuring the students to help and support them at every point and asking them to approach unhesitatingly when in need.

## 5. Map It Out

Date: 27th September Time: 6:00 PM Venue: F107

As a pre-ATMOS event to rile up the spirits of the home crowd of BITS Pilani, Hyderabad Campus for the upcoming technological fest, CEA conducted Map It Out. The one of a kind event was greeted with an unexpected but welcomingly high footfall. As the name suggested, **the event tested the participants'** mapping skills, wherein a set of instructions required you to sketch up a map of a mall with the exact specifications provided. The contest brought out indigenous ideas and was a test of how differently each mind works. The total practicality yet the simple kiddishness of sketching amused and baffled the participants with only one emerging with the correct map. The event was conducted in the hopes of generating an interest of its participants in the area of basic structural planning.

## 6. Guest Lecture on Geotechnical Engineering

Date: 28th September Time: 4:00 PM Venue: F208

A guest lecture on 'Understanding of Foundations: Success of A Civil Engineer' was delivered by Mr. Madan Kumar Annam, Head of Engineering, Keller Group. Mr. Annam started his lecture with the career prospects and the current avenues of interest in Civil Engineering. He defined Civil Engineering to be the superposition of natural environment, built environment and people. With the stage set up for an interesting talk, the speaker moved into the specifics of the topic, wherein he explained the challenges to deep excavation and ways to overcome them. He showed how a case related to the construction of a dam was solved, piquing the interest of the audience. He ran through the modern techniques for ground improvement, namely Vibro-compaction and Jet grouting. He ended his lecture with a message to the future Civil Engineers wherein, he underlined curiosity, morality and commitment as the values that needed



to be nurtured. The talk elicited a positive response from the audience and the fact that the speaker could link the theory lessons to the on-site challenges was much appreciated. This was evident from the lively question & answer session that followed. The speaker was felicitated by Prof. Sridhar Raju, Head of the Department. The session ended with a vote of thanks by the President of CEA.

#### 7. MS Project Workshop

**Date: 30th September Time: 4 PM Venue: F208**

MS Project is a software used for planning and management of building projects; catering to a field of utmost importance in construction. CEA on 30th September 2018, organised an interactive workshop on MS Project, overseen by Mr. Jochan Joseph, Executive Engineer, Kerala Water Authority. The workshop was attended by 30 people both from B.E. and M.E. batches, and were tutored in the basics of construction planning and management. They were taught how to handle the software to plan and execute a simple project of construction of a car shed. The workshop was informative and picked on the interest of people who plan to pursue a career in construction management.

#### 8. ATMOS 2018

As with the previous years, Civil Engineering Association played host to a plethora of fun-filled events in **this year's edition of ATMOS**, one of the largest techno-management fests in the country. The fest, held from 26th- 28th October, attracted national publicity as students from various parts of the country showed up.

- **Beam It**

Date: 26th -28th October Venue: Concrete Lab

**Beam It, the headliner event for CEA tested the participants' skills in concrete mix design and structural design.** With the number of registered teams touching a record forty, the competition was certain to be fierce. The rules were simple: the teams would have to cast a certain concrete structure with the provided materials and subject it to load bearing tests. The team whose structure is able to bear the maximum load, would win. The first day kicked off with the participants flocking in. The materials were supplied and the enthusiasm started getting converted into physical projects. There was a sense of competition; after all, the teams were in conjunction to participation, also representing their respective institutions. The line of competition was so well drawn that people never really hopped onto the sad side of it. As it should, came the final day. The result was eagerly awaited for. It was startling to see a structure, which was barely more than half a foot tall, stood on four cylindrical legs of not more than an inch in diameter, bearing a mammoth load of over 100 kilograms. Finally, the event was over and the CEA members were indeed content with the feats achieved. The success of the event was a testament to the efforts put in by the organizing committee.

- **STAAD.Pro Workshop**

Date: 26th October Time: 10 AM Venue: CAD Lab

With the growing relevance of engineering application software in Civil Engineering, proficiency in one of them is always an asset for any Civil Engineer. With this vision in mind, a workshop on STAAD.Pro was conducted in collaboration with Bentley Systems. The workshop aimed to give an insight into STAAD.Pro, a modern software that aids structural analysis and designing. Starting from the basics, it covered all aspects of structural design - from materials to reinforced concrete design. The one-day workshop saw a healthy participation of around 30 students.

- **Paper Presentation**

Date: 27th October Time: 10 AM Venue: I 123

This event gave an opportunity to the young technophiles of the country to present their research paper in front of an esteemed judging panel consisting of the teaching and research faculty of the department. The participants had to send the abstracts of their papers for an initial screening process before the final presentation. The event generated much interest as some very innovative ideas like coconut fibre reinforcements, eco-friendly concrete, usage of wool in wall construction, etc. turned up.

#### 9. A Talk on Kaleshwaram Irrigation Project

Date: 14th November Time: 3 PM Venue: F208

Civil Engineering Association hosted Mr N Venkateshwarlu (Chief Engineer, Irrigation & CAD Department, **Telangana State**) for an invited talk on **'The Undertaking of the Kaleshwaram Irrigation Project'**. The ongoing irrigation project has a mammoth budget of Rs. 80000 Crore and is posed to be the largest of its kind. The session was even more special as it was conducted on Telangana Irrigation Day.

Mr. Venkateshwarlu described the geographical features of the project area. At full capacity, the project is designed to lift 90 TMC of water to an elevation of 518 metres, potentially ending the water woes of the state. He showed a video that detailed the progress of construction over the years. Stressing on the importance of being time bound, the speaker asked the students to learn the art of dynamic planning, a skill highly valued in large scale construction industry. The Q&A session that followed the talk had a number of interesting questions to which the speaker answered patiently. The speaker was felicitated by Prof. Sridhar Raju, Head of the Department. The President thanked the speaker for taking his time out to deliver the lecture, despite his busy schedule.

#### 10. Engineering Graphics Workshop

**Date: 23rd November Time: 10 AM Venue: F102**

The Engineering Graphics workshop led by Mr. Prakash Mohan, was conducted for the freshers enthusiastic to polish their AutoCAD skills. With an impressive turnout of over 65 students, the session revisited all the main concepts of Engineering Graphics from square one. The half day workshop served as a great last moment doubt clearing session for the students before the upcoming comprehensive exams.

#### 6. PHoEnix:

1) Technical Association Orientation for Freshers: 8th August 2018

The freshers were introduced to the largest technical association of the campus and were briefed about the functioning and aim of association in the Auditorium. It was attended by around 1000 freshers.

2) Faculty student interaction 23rd August, 2018

The freshers were finally introduced to both the association and the department. The event was graced by the presence of the department faculty, including the HoD, Prof. Sanket Goel. The students were given an opportunity to learn about the faculty, including their qualifications and their areas of research. They also received invaluable advice regarding college life and choices for their future.

3) MATLAB fun stuff (Article release): 26th August, 2018

To start the year off with a bang, the editorial board decided to re-release: **MATLAB Fun Stuff**, an article from the 2013 edition of LIVEWIRE. The article deals with the fun and quirky easter eggs to be found in MATLAB, and was met with positive reactions.

4) Alexa (Article release) 1st September, 2018

**The editorial board released an article on digital assistants like Amazon's Alexa, Apple's Siri, etc. and how they were supposed to collect data for improvement.** Some readers offered with their own views and experiences in the comments section, creating an opportunity for everyone to learn something new.

5) PHoEnix Treasure Hunt 16th September, 2018

The association conducted its first pre-ATMOS event for the general body, where participants had to decipher multiple clues to reach the end. With prizes worth 1K, the event saw huge turnout and enthusiasm.

6) PHoEnix Trailer Release 18th September, 2018

In anticipation of ATMOS, PHoEnix, in collaboration with DoVE, released its trailer. The trailer broke down what one could expect from ATMOS 2018 and garnered a lot of views and positive reactions soon after release.

7) Image Processing Workshop 25th, 26th September, 2018

One of the last events before the mid-semester examinations, the association organized a workshop on image processing using MATLAB. Conducted by Dr. P.K. Thiruvikraman, the workshop dealt with some theoretical concepts and practical applications of image processing, giving students valuable exposure to the important tool.

8) Know Your Professor series 2nd October, 2018

The association took up the responsibility of helping students get to know more about their faculty and to this end released the first video of its KYP series, where professors responded to questions presented by association members and gave their invaluable insight.

9) Quadcopter workshop 20th, 21st October, 2018

The association conducted a workshop on assembly and control of quadcopters to help students get ready for one of the main attractions of ATMOS, Game of Drones. Teams built their own quadcopters with the able guidance of the tech team.

#### 10) Know your Campus Quiz(KYC) 17th October, 2018

PHoEnix association conducted the Know Your Campus quiz to spread awareness about the net electricity usage by the campus. Questions were based on the campus power consumption data 2017-18 study year. The aim of the questions was to creatively make the students think and have a discussion about the ways in which electricity as a resource could be used efficiently.

#### 11) Class representative meeting

The Class representative meeting was scheduled for the 2017 and 2016 batch to discuss the courses they have done so far and asked to give their feedback on the same. The aim was to ensure a discussion so that the instructors could get a clue on how to further improve their courses.

#### 12) Know Your Professor Video Release 24th October 2018

The second installment of KYP Series was released on 24th October 2018. This time, Professor Alivelu Manga Parimi shared her invaluable experience with us. The aim of the series is to bridge the gap of Faculties and students, so that students get to know more about Faculty and their research experience.

#### 13) Robowars 27th,28th October 2018

Hardwired bots, clashing metal pieces, wonderful audience, sparkles all through the arena, this is what you can tell about robowars in short. The two day event in which nine teams participated with both defensive and attacking bots had been a show stealer. Not just did people come to the arena of the fight but many more watched it's live stream on Facebook.

#### 14) Paper Presentation 26th,27th October 2018

With over 40 papers chosen for the second round, this was one such event where all of the best minds came forward and laid their ideas before our esteemed judges. A three round event with first round being online and second and third being offline, students very enthusiastically attended, participated and presented their idea

#### 15) IoT Workshop 26th, 27th October 2018

A theory along with hands-on workshop session conducted by turned out to be a massive success with students very actively participating and learning about Arduino, breadboards, how to code for Arduino and much more. A total of 16 hours spread across two days, were spent by the students to gain a great deal of knowledge on Arduino.

#### 16) PCB Design Workshop 27th, 28th October 2018

Another 2-day workshop covering the basic ideas and principles of PCB designing was conducted. From teaching how to design circuits digitally to demonstrating the art of soldering the components together, the workshop was a great learning experience. The first day involved designing a circuit for the clap switch whereas on the second day of the workshop we built it. The theory behind the circuit was touched upon.

#### 17) Game of Drones 27th October 2018

Soaring sky high was not only the excitement of the participants who came to ATMOS, but also the quadcopters built by them. Free fall, 360 degree flips, going past obstacles and many more aspects were checked before judging the best quadcopter. This is yet another show stealer by PHoEnix.

#### 18) Line and Wall Follower Competition 27th,28th October 2018

Young minds making their own bots, tightening it's screwed, coding for it, getting every tiny thing in line to make it happen is a wonderful sight to watch. Another headliner event by PHoEnix, line follower, has been attended by a huge number of students, making it a grand success.

#### 19) KYP Video Release: Prabhakar Sir 5th November 2018

The final video of the KYP series was released on 5th November 2018. Dr. BVVSN Prabhakar Rao gave some really important tips to be followed by students for successful college life.

#### 20) Guest Lecture by Prof. Rajendra K. Pandey Director General of National Power Training Institute (NPTI) Prof. at IIT(BHU), Electrical Engineering Department 2nd November, 2018

To provide students a glimpse into current developments in Electrical and Electronics

Engineering, PHoEnix and Depart of Electrical and Electronics Engineering invited Professor Rajendra Kumar Pandey to conduct a talk on the topic **“Renewable Energy System Grid Integration and Strategic Smart Control”**. Prof. Pandey spoke on smart grid architecture and it's applications in the national grid. After the talk, Prof. Pandey visited the Electronics department, where students could approach him for further queries, providing students the full advantage of his expertise.

#### 21) 2nd Class Commitee: 14th Nov. 2018

The second class committee meeting was scheduled for the 2017 and 2016 batch to discuss the courses they have done so far and asked to give their feedback on the same. The aim was to ensure a discussion so that the instructors could get a clue on how to further improve their courses.

22) Placement Talk by seniors 15th Nov. 2018

The Placement Talk was conducted by PHoEnix association to alleviate the doubts of students regarding the Placement scenario. Our very own seniors Ritika Ramchandani, Shreeda Pattanaik, Aditya Dubey, Shikhar Sharma, Yash Gupta, Snigdha Grandhi, Mohit Hirpara who successfully got placed in core companies were there to share their experience and guide the juniors.

## 7. IEEE:

Over the course of this academic semester, IEEE held a number of intra-club events, aiming to increase the technical knowledge of all our members. We collaborated with ARC to conduct our pre-atmos event, iNavigate. We managed to teach more than 50 teams the basics of a bot. In ATMOS we conducted the iNavigate competition. More than 30 teams participated. The event had a cash prize of 25000. Over the last month we encouraged our fellow association members to continue working on their projects. We have given them a deadline, close to the start of the next semester, to present their work to us.

### Club Senate:

#### Shades Club Archives

##### Entry 1:

**Date: 27/06/2018**

Shades club has started with a **new blog “Shades Club, BITS Pilani Hyderabad Campus”**. This blog is our canvas and an attempt to share artworks done by our members and their experiences with the audience. Trying to put our club in a public platform (a recognition among other colleges as well as art experts) sharing all the works and efforts put behind our artworks, events, shows and a place to interact with other art enthusiasts. We will be adding our artworks, description about our events, performances and workshops. Also we are trying to share some art tips from our side.

Link: <https://shadesbits-hyd.blogspot.com/>

##### Entry 2:

**Date: 17/08/2018**

**An article is released about our club from the page, The Education Tree, it is India’s fastest growing youth community, operating across a network of different schools and universities. The article was released under their initiative “College Societies Talkies” where they post about the work carried out by specific clubs/ societies from different colleges in India.**

Link: <https://www.facebook.com/theeducationtree/posts/>

##### Entry 3:

**Date: 25/08/2018**

Conducted a basic sketching workshop. It was a preinduction workshop, in which we taught the basic of Dry medium drawing.

Total turnout: 28 people

##### Entry 4:

**Date: 30/08/2018**

**First of our Fervour’18 events wherein we organised a tattoo making workshop where people can come and get inked with the tattoo of their choice.**

Total turnout: 51 people

##### Entry 5:

**Date: 31/08/2018**

Our second event for Fervour, as the name suggest it was a fun activity that we planned for the freshers where they come in teams of two and participate.

Prize money: Rs 1200/-

Total turnout: 82 people

##### Entry 6:

**Date: 6/09/2018**

Introductory meet for the new inductees. The meet was for the Introduction of new inductees with the existing members and brief them with the plans for the semester.

Duration of meet: 1.5 hours

**Entry 7:**

**Date: 29/09/2018**

ATMOS meet, a meet was organized to discuss upon the work to be carried out during ATMOS.

Minutes of the meet:

- Discussed upon ideas for what can be made for theme painting
- Discussion on the Inktober event to be carried out on instagram during the month of October.
- Everyone was asked to search for more ideas for the theme painting.

Duration of meet: 1 hour 15 min

**Entry 8:**

**17/10/2018-23/10/2018**

Worked on theme painting for ATMOS

Size: 9.5ft x 11.5ft

Location: OAT

**Entry 9**

**1/10/2018-31/10/2018**

We started with a Inktober series this year on Instagram wherein we posted an artwork on a daily basis. 4 themes were released, one for each week and artworks based on that theme were posted. Medium used were ink, watercolor, pens and marker.

Link: <https://www.instagram.com/shades.bitshyd/>

**Entry 10**

Shades lent the artworks of their artists for the decoration of Navratra pandal organised by Geetanjali & Utkal samaj.

**Entry 11**

**1/11/2018-4/11/2018**

As it is known that Mess 1 was painted this year, and some of the pillars were repainted over and over again. Seeing this we approached the Mess 1 manager, Balasetty sir, and we offered to help them with the mess painting. He happily accepted our proposal and gave us the job. Initially we have decided to paint a map of our campus on a wall inside the mess 1. Within this time, we have started with the sketch work and will continue it in the upcoming semester. Our plan is to complete the map painting before Arena. The reason behind making a map is that during fests a lot of people from other campus visit us, hence a map would be really helpful for them to know our campus. Here is the rough design of the map to be painted:

**Entry 12**

**Date: 17/11/2018**

A final meet for this semester was conducted to discuss on the plans for next semester and give work for vacation.

Duration of meet: 1 hour 30 min

Shades FB Page

- 22nd August- Blog post
- 29th August- Blog post
- 15th September- Blog post
- 18th September- Blog post
- 30th September- Blog post
- 22nd October- Blog post
- 22nd December- Artwork post
- 26th December- Artwork post

### Movie Club Archive

- August -
  - Club Inductions (Round 1)- We conducted inductions for over 50+ students. Based on an interview we shortlisted 30 students for Round 2.
  - Conducted weekly Movie Screenings.
- September -
  - Club Inductions (Round 2)- The inductees had to prepare personal short films in teams. We conducted workshops for the basics -
  - Workshops - We conducted 3 workshops for all 30 students (6 teams)
    1. Basic Session - Filmmaking techniques, elements of a film, editing techniques, deconstructed scenes.
    2. Hands on camera session - Every team were given their individual camera and a tripod to shoot their own film. We guided them on how to effectively handle DSLRs for better shots.
    3. Hands on Editing session - The footage they shot in the last session were used to complete their scenes on Premiere Pro.
  - 5 Teams were able to finish their short films and were finally inducted
    - 20 Filmmakers
  - 6 Film Reviewers
    - Conducted weekly Movie Screenings.
    - Conducted Slumber Party on the Eve of Ganesh Chaturthi
- October -
  - Released two movies in Atmos -
  - Furore - Made by - Priyash Barya, Adit Mohanty, Shubhang Srivastava, Soumyadeep Basu (Duration - 10 min)
  - Imagine - Made by - Akhil Raj Baranwal, Priyash Barya, Rut Vora (Duration - 6 min)

### Furore

#### Imagine

- Released the first edition of The Moving Image (Movie Review Series) -
- Movie - Polytechnique, Reviewer- Shubhang Srivastava
  - Slumber Party - Conducted All night movie screenings (10 pm – 4 am) in 4 halls for three **consecutive days during ATMOS '18.**
  - Conducted weekly Movie Screenings.
- November -
  - Released the second edition of The Moving Image -
  - Movie - Mother, Reviewer - Shivang Dixit
    - Working on a campus tour project which will be released next semester.
    - Conducted weekly Movie Screenings.
- December -
  - Released third edition for The Moving Image -
  - Movie - Yojimbo & Sanjuro, Reviewer - Anish Vedantham

## VFX Club Archives and Documentation 2018 -19

### 1. The VFX Summer Course

**Dates:** During the summer vacation

The very first initiative of this year's Vfx Club post holders (Shashank Gunda, Khush Gohel, Anish Walia, Vaishnavi Reddy S) was to increase the enthusiasm and participation of the students in the zone of video editing. It was done by organising a detailed summer course for the enthusiasts.

The turnout was pretty high (>70). The process of conducting this was that every person who was interested in learning were made to join a closed facebook group. The heads, with thorough planning, made a detailed 8 week plan wherein the people who worked on it will be good enough to make a proper VFX video by the end of the summer.

This was carried out by sharing appropriate YouTube videos once a week. A provision was given to the students to drop their project files in a google form where one of us would review it and give suggestions to improve.

The concepts covered (key frames, transitions, motion tracking, colour grading and many more) were a part of the softwares Adobe Premiere Pro and Adobe After Effects. The schedule was executed perfectly and the course did increase the enthusiasts in the summer.

### 2. Workshop 1

**Date:** 24-08-2018

The VFX club of BITS Pilani Hyderabad campus along with the Department of Visual Effects conducted a workshop on 24-08-2018 in F-103. The workshop was based on effects, keyframes and time-remapping in Adobe premiere pro which comes under the video compositing division of the club. It was taken by Kondiseti Manoj NSK and was assisted by several other club members.

The attendees were provided with the software used and the raw footage to work on in sync with the person teaching. They were taught about the effects panel and the keyframes and also about time-remapping using the footage provided. In the end the attendees interested in giving the inductions were asked to make any video of their choice and we inducted the members and enthusiasts mainly on the basis of their work.

It was the first workshop conducted by the VFX club this year and there was a huge turn out (of >200 people). The VFX club has taken up projects this year which it would try and complete.

The club has already started collaborating with other clubs to produce interesting material for the promotion and development of both the clubs equally. Some of the examples would be the collaboration videos made with the dance club and the shades club of our campus.

There have been several meets among the club members regarding the progress of projects and collabs. A facebook group has been made to keep a check on each others work in the club. The enthusiasts group is well maintained and so is the club's official group with frequent activities and reviews.

### 3. Workshop 2 + Event

**Date:** 30-08-2018

As a part of fervour, second workshop was conducted by VFX club on 30th August on F107. This workshop was mainly intended to get the students to be interested in the workings of the club. It was taken by our secretary, Shashank Gunda where he taught the basics of the effects needed to make a cinematic trailer. The main idea of this was to make a trailer of any movie of our choice but in a completely different genre.

The attendees were requested to come to the workshop with the software (adobe premiere pro) installed. The workshop started with introduction about the software. Then the workshop proceeded with a brief description on the procedure to make a trailer with the required set of effects that were described thoroughly. The attendees were asked to make a small project so as to get acquainted with the software.

There was a great turn out (>60) causing the room to be filled completely. The number of entries that we got were also a very good number (>20). Harsha Vardhan from the 2018 batch won the first place he made a horror video of Mr. Bean.

Constant meets to keep a track of the work done by the club members continue. A list of items required for the club have been made and submitted to the general secretary. A special meet was called upon to discuss the events to be conducted by the club.

#### 4. Workshop 3

**Date: 18-09-2018**

Another workshop was conducted by the Vfx club on 18-09-2018 in F-103 by Revanth Tanneru. This workshop was a part of the visual effects department of the club. Cinema grade techniques like green screen editing and 2-D motion tracking were taught. The attendees were requested to download and install Adobe After Effects before attending the workshop. Relevant footage was provided to work on. The workshop started with the introduction of After Effects interface where the concept of layers and compositions was taught followed by the usage of keylight from the effects panel to edit a green screen video.

The turnout was great and consistent (> 100). A list has been released with people inducted into the club. A total of 8 people were inducted as club members and also 9 other people were taken into the club as enthusiasts.

A meet was conducted for the new inductees so that they could get acquainted with the current club members. We are planning on having frequent meets in order to discuss ideas on further collabs.

#### 5. Worksession 1

**Date: 17-10-2018**

The first worksession by VFX club was conducted on 17-10-2018 in the VFX Room. This was the first time that we took an initiative like this. In worksessions, the members of the club get together to learn a particular set of effects. A work session is a self learning process exclusive to the club members.

The effects that were covered were animations and basic glitch effects. By the end the work session, the members were able to make a simple animated video from scratch.

As planned a meet was arranged among the club members to discuss about the project workflow of the club and to get to know each other better. Several meets were also conducted to discuss about further plans.

#### 6. Worksession 2

**Date: 01-11-2018**

This work session involved practice on after effects. The topics that were practiced were motion tracking, masking, lower thirds and other basic effects in Adobe AE.

#### 7. Camera Handling Workshop

**Date: 05-11-2018**

The VFX Club organised a camera handling workshop for the members of the club to get them to get used to the usage of a camera. The Visual Effects Club deals with shooting of videos as much as editing them. It is evident by the projects they make.

It was necessary for the inductees to know how to use a camera in order to make good projects in future. This workshop was taken by Anish Walia. The basics of camera handling and the usage of tripods was taught in the workshop. By the end of the workshop, all the members of the club were used to the idea of the usage of a camera.

The club further planned on collabs that were to be taken up in the next semester. The VFX Club is in talks with The Dance Club, The Music Club and Hindi Tarang for possible videos in the next semester. The club is also planning on making a campus video.

#### PROJECTS HANDLED BY THE VFX CLUB IN THE FIRST SEMESTER

##### 1. KYP (Know your professor) For PHOENIX

In this project, our aim was to make students more aware about their faculty. The faculty were questioned on a general basis.

These were the professors

- Alivelu Ma'am
- Chetan Sir
- Prabhakar Rao Sir

Link: <https://www.youtube.com/playlist?list=PLMuwcm7rvXeTPI6TbSUGpoG6BHv1YEOZI>



## 2. Freshers Video in collab with the Journal Club.

We have interviewed the freshers based on their opinions of the campus and the campus life they have been experiencing

Link: <https://www.youtube.com/watch?v=I6k0cE2YtHI>

## 3. Dance Club Inaug Video.

The video was made for Dance Club, which they performed in the inauguration

## 4. Orientation Clips

We have made videos for the following organizations for exhibiting themselves in the orientation for 2018 students.

- Vfx Club
- Shades
- Nirmaan
- NSS
- EWB
- Scio

## 5. Sanskriti Trailer.

This is a trailer for annual inter cultural fest that happens in our college. The event is mainly for representing our cultures through dressing and performances.

Link: <https://www.youtube.com/watch?v=08DnSrt-DnQ&t=4s>

## ELAS SEMESTER REPORT

### Writing

#### Events/Workshops:

1. Pre Induction
2. Inductions
3. Post Inductions

#### 1. Pre Inductions:

##### i. Read and Review(R&R): 1

Attendance: 17

Duration: 120-150 minutes

Description: An open to all event with a straightforward objective: to criticize and review pieces uploaded on a drive/chat. The most important meet for writers in the club, and also the most frequent one.

##### ii. Yin-Yang: 1

Attendance: 28(14 teams)

Duration: 90 minutes

Description: While traditionally an open to all event, this edition was closed to club members and enthusiasts as it was meant for the juniors primarily. The objective is to frame a story/poem/soliloquy/any form of prose or poetry in the given duration on a prompt with a partner. Each team has 2 members, each of who select 1 prompt and begin writing until the half mark, after which they exchange their entries and close what their partner started until/before the full mark.

Half mark: 45 minutes

Full mark: 90 minutes

#### 2. Inductions:

##### i. Man from Amorium: 2 (Inductions 1 & 2)

Duration: 180 minutes

Description: Open to all of campus except club members/enthusiasts. Objective: To write any form of prose/ poetry on a given written prompt in the given duration.

##### ii. Picture Perspective: 2 (Inductions 1 & 2)

Duration: 180 minutes

Description: Open to all of campus except club members/enthusiasts. Objective: To write any form of prose/poetry on a given written prompt in the given duration.

### 3. Post Inductions:

#### i. R&R: 2

Attendance: 20 (1<sup>st</sup> meet) & 8 (2<sup>nd</sup> meet)

Duration: 120-150 minutes

Description: Same as above

#### ii. Weave it: 1

Attendance: 23

Duration: 180 minutes

Description: Open to all event + workshop. Objective: To write any form of prose/poetry on a quote of choice (quotes are given).

#### iii. Theme Event Trial Run (Rise Through the Ages): 1

Attendance: 12

Duration: 60-90 minutes

Description: Open to club juniors. The objective of the meet was to check the feasibility of the theme based event decided for VM 2019. Objective of Rise Through the Ages: To frame any piece of prose/poetry on one of 6 written prompts, each of which gives details of troubles in one of 3 ages: Mediaeval, Modern and the future. The author should weave a revolution somehow into their piece keeping in mind these facts.

### Speaking

#### Formal Speaking

The session began with preparations for NALSAR IV Debate. For NALSAR, we organized selections early this semester. Four debate teams (Shaaban Karim, Rohit Dwivedula; Rishabh Shrimal, Satyaki Mandal; Aditya Mishra, Rweetam Bhattacharya; Monith Sourya, Vikranth Sagar) were chosen to represent BITS along with 3 people (Gokul Karthik, Triyasha Ghosh Dastidar, Tejas Vaid) being sent as Adjudicators. A total contingent of 11 people represented BITS-H at NALSAR Parliamentary Debate 2018. In the run up to the tournament five practice debate sessions were conducted, including an approximately 5hr session having two debates back-to-back. Some enthusiastic juniors also attended the practice sessions to get an idea of how debate works, and to help them get experience in adjudicating. This was before the Debate Orientation and Mock Debate we conducted the day after NALSAR. At NALSAR, two of our second-year teams managed to break into the Novice Semifinals.

1. Shaaban Karim and Rohit Dwivedula won in the novice category.
2. Satyaki Mandal and Rishabh Shrimal made it to the semifinals.

The work of the Formal Speaking Core Committee for the incoming batch of students and first-timers began on 15th September with a 'Debate Workshop' which was attended by a total of 44 people in total. This session was followed up by a mock debate by the teams that went to NALSAR IV Debate Competition on the topic 'THBT the government should distribute free contraceptives in schools and colleges' which was followed up with a detailed adjudication and discussion with the juniors as to how the teams could have tackled the topic differently.

To give the first taste of speaking for 7 minutes, the first open debating session was conducted on 22nd September with 25 people attending the session. Two simultaneous debates were conducted wherein there was an attempt to pair up first-timers with more experienced people. The next session was conducted on 21st October, the gap in the organizing the session could be attributed to ATMOS and midsem examinations. After this there were 2 more sessions, on 1st November and 19th November.

Another initiative that was started was one of Motion Files which is an attempt to compile arguments on different topics and area of debates and making them available to all members in the debating community on campus on a fortnightly basis. Currently the blog has three articles. The articles aim to capture any debate that occurred in a session or basic information on how to deal with a specific area in debating such as International Relations.

Apart from NALSAR, we also sent out teams to RV Debate Tournament (Gokul Karthik, Rweetam Bhattacharya; Sakshi Singh, Ashwath Sajith; Aditya Venkatraman). Palak Oswal and Sharad Hotha attended the tournament organized by IIT Bombay.

#### Informal Speaking

#### Events/Workshops:

1. Pre Induction
2. Inductions

## 3. Post Inductions

## 1. Pre Inductions:

## i. Workshop on power speaking: 1

Attendance: 21

Duration: 90 minutes

- ❖ Description: Explaining the primary difference between a poor speech and a good one is in its delivery. Talking about proper delivery techniques that should be used to successfully communicate the substance of the speech to the audience.

## ii. Alias: 1

Attendance: 20

Duration: 120 minutes

- ❖ Description: Gave them a difficult speech- **can't speak with a straight face. They were asked to take a chit from each bowl : emotion, personality. The personality's famous 30sec clip was played before the speech to let them pick up the personality's style of speaking, make a note of it and then deliver the speech with the emotion chosen. They were judged on the basis of justice done to the trait as well as emotion.**

## 2. Inductions:

## i. Prepared Speech, Extempore, Block and Tackle, Devil's Advocate

Duration: Inductions 1 and 2

Description: Open to all of campus except club members/enthusiasts. Objective: To speak on any of the 4 choices for 2 mins (prepared for 4 mins)

## 3. Post Inductions:

## i. JAM: 4

Attendance: 40-50(Intro meet); 15(VM OC meet); 12-13 (Nescafe); 12(OAT)

Duration: 120-150 minutes

- ❖ Description: Just a minute. Rules were explained, and multiple rounds took place. The object of the **game is for participants to talk for sixty seconds on a given subject, "without hesitation, repetition or deviation".**

Slam Poetry and Spoken Word

## EVENT 1: SLAM AT C3, NESCAFE AND ROCKS

## Event Description:

Poems were written and performed by members of the club/ students on campus. The main motive behind these sessions was to promote the slam culture on campus and to improve the quality and performance of the poets. Attendance in these events increased as the semester went on (from around 11 people in the 1st session conducted on the 10th of August to 41 people in the last session conducted on the 21st of November).

## Themes Implemented:

10th August, 23rd August and 18th October 2018: Open Theme

**21st September, 2018: Theme based on "section 377"**

12th November: Duet Slam

21st November: Soul Slam

## KEY STATS:

Themes implemented: 3(excluding the open theme)

Lowest Attendance: 10 [Slam at Rocks, 23rd August, 2018]

Highest Attendance: 41 [Soul Slam, 21st November 2018]

## EVENT 2: L&amp;R SESSIONS

## Event Description:

L&R sessions were implemented this semester to improve performance of poetry/spoken word and at the same time provide the writers/poets with constructive criticism regarding their works.

## DATES:

17th August, 2018

21st August, 2018

26th August, 2018

18th October, 2018

#### KEY POINTS:

People were selected in groups of five.

Attendance dropped towards the end of the semester.

#### EVENT 3: POETRY WORKSHOP

##### Event Description:

**“Talk Sense” was the only poetry workshop conducted this semester. People were selected in groups of five and were given a topic, and each member of the group had to write a poem/spoken word piece on the given topic from the perspective of a sense (i.e., sight, touch, smell...etc.).**

##### DATE:

24th September, 2018

##### STATS-

TOTAL EVENTS CONDUCTED: 11

MAX EVENTS IN A MONTH: 5 (AUGUST)

MIN EVENTS IN A MONTH: 1 (OCTOBER)

MIN ATTENDANCE\*: 10 (23rd August)

MAX ATTENDANCE\*: 41 (21st November)

\*(excluding attendance in L&R sessions)

##### Blog

The work started with setting up the blog. Since then, there have been 13 posts, of which 11 are from the R&R drive with pieces from members of the club and 2 from an online event conducted by us.

Event: We had one online prompt-based writing competition where the winner(s) would get to have their pieces on the blog. We had 7 entries among which there were 2 winners.

The following are the pieces uploaded along **with their stats. (Number of likes haven't been mentioned as they are minimal)**

Post Name 28/12/18)	Author	Type	Date of Release	Views (as of
Dear Reader	Siddhant Biswas	Poetry	19/07/18	197
A Sentimental Fool's Sorrow	Rohan Tammara	Prose	22/07/18	98
A Slice of your Time	Niharika Shankar	Prose	26/07/18	82
The Sky	Surya Vamsee Ayyagari	Poetry	27/07/18	109
Tempered Steel	Karthik Nagaraj	Prose	04/08/18	51
Murder Your Darlings	Abhimanyu Dasgupta	Writing about Writing	15/08/18	89
The Starry Night	Vighnesh Shenoy	Poetry	05/09/18	214
An endless night	Akash Srivastava	Poetry (Competition)	12/09/18	86
The Invocation	Mrinal Pradhan - Non ELAS	Prose (Competition)	12/09/18	191
Musings on Mausam	Suchit Kar	Prose	18/09/18	167
Oblivion	Vaishnavi Nandakumar	Poetry	24/09/18	134
Hiraeth	Abhimanyu Dasgupta	Poetry	30/10/18	192
The 4 Men of Society	Vinith Bhandari	Poetry	12/11/18	247

The blog has 10 followers as of this date.

#### DANCE CLUB ACTIVITIES

- Summer vacation – Four different dance videos of different styles were given to the club members. We had to choose any one video and learn at least 30 seconds of it. This helped us to go back to our basics, learn new form and increase our dictionary of steps.

- Workouts - In order to increase our stamina and flexibility as dancers we have workouts everyday at 6.15 a.m. Other than workouts, every Sunday, we try to do different activities like jogging, solo dancing.
- Re-inductions – Members who were inducted in the last semester are supposed to give re-inductions. Reviews about their performance and growth as a dancer during the last semester was discussed.
- Inductions – We had the first and second round of inductions on 22nd August, 2018. Out of 40 students, 15 were selected for the third round of inductions held on 24th August, 2018. We finally inducted 10 members into our club.
- Workshop – As a part of Fervour, the Dance Club conducted a salsa workshop on 30th August, 2018. We got a turnout of more than 50 students. This was the first event handled by the second years of the club. Everyone had a great time
- Instagram page – To increase the outreach of our club, we have created an instagram page. At the moment we have 615 followers and plan to increase it through online competitions and posting dance videos very soon. Our official **crew name is “CYPHER”**.
- A total of 13 songs were choreographed this semester. Other than that, evening sessions consisted of learning the basics of a new form. Hip hop, Lyrical, Popping and Locking, Bollywood and many other styles were taught and learnt by us.
- Feedback is given to each and every member by rest of the club. This helps us grow as a dancer by correcting our negatives and improving our positive qualities.
- ATMOS Inauguration performance – The Dance club collaborated with the VFX club and the Arts and Deco Department for a thematic atmos inauguration performance. We tried to implement the theme of the fest in our performance. The performance was well received and a lot of appreciation from the audience was shown.
- WAVES 2018 – The club participated in the group dance competition Natyanjali at the cultural fest of Bits Goa, Waves. Even though we did not qualify to the final round of the competition, we gained a lot of experience from it.
- Indywood Talent Hunt – In the competition hosted by Loyola College, we qualified the first round but could not participate in the final round due to comprehensive examination held at the same time.
- Sanskriti – Few of our club members were involved in choreographing and teaching a sequence of songs to interested members of their respective regional associations.
- A total of 12 meetings took place during the course of the semester. The initial meetings discussed the plan of the club for the semester followed inductions and re-inductions discussions. Atmos thematic dance planning and participation in competitions was discussed in rest of the meetings. These included brain storming on various ways to depict the theme, sequencing of various songs and coordination with VFX club. At the end of the semester, we had review meet regarding the functioning of the club throughout the semester. Planning of Pearl and Dance night was also done in the last meeting.

#### SaFL Club Archives (2018 -19)

**August:**

**Date: 31/08/2018**

SaFL conducted its first event, Mind Your Language, as a part of Fervour week, where the juniors would be introduced to all the clubs and would have an opportunity to participate in multiple club activities. This event was conducted keeping in mind that participants may not yet have a good knowledge of a foreign language and was hence prepared in such a way that it catered to everyone.

The participation was quite high with 30 teams (60 people) showing up.

**Date: 29/08/2018**

SaFL began its official language learning workshops with the Language Basics Workshops taken by the heads of all language divisions. This workshop was conducted to give an introduction to Sanskrit, Japanese, French, Spanish and German, of which inductions would be based. The participation was in total around 100 (for all five workshops).

**September:****Date: 18/09/2018 - 25/09/2018**

In this week, all divisions of SaFL conducted their second workshop for which they also held meets with their respective divisions to decide what topics would be covered in the workshop. The juniors took up the work enthusiastically and covered a few basic topics in all workshops. Most members attended all workshops (around 10 in each division). After the second workshop, all divisions started maintaining an online activity Word of the Day in their respective WhatsApp/Messenger groups.

**October:****Date: 22/10/2018 - 31/10/2018**

After midsems, all divisions conducted their third workshop. As before, one or two meets were held before **each division's workshop where juniors were allotted some work. They covered topics in all workshops.** The online activities introduced after the second workshop were continued and in addition to that, new activities were introduced too (The Sanskrit division introduced a Facebook activity of breaking down the meaning of every word with respect to every letter; the French division used basic posters for Word of the Day; the German division had a Facebook activity Phrase of the Day; the Japanese division maintained a Self-made dictionary; the Spanish division had song translation in their WhatsApp group).

**November:****Date: 12/11/2018**

SaFL conducted its first ever talk based on Languages and Living Abroad taken by our very own professors (Prof. Chanchal Chakraborty, Prof. Pranesh Bhargava, Prof. Suchismita Satpathy and Prof. K. Sumithra). The talk was a success with over 60 people attending it. It was an interactive talk where anyone could ask questions to the professors, who talked about their experiences in living in a foreign country and how learning the local language was instrumental in surviving there and what a student stands to gain by starting to learn a new language at college level. The talk was also live streamed in our Facebook page and later shared to BPHC Free Expressions group.

**Date: 15/11/2018 and 23/11/2018**

The Japanese and German divisions of SaFL conducted their fourth and final workshop of the semester to revise all topics done in the last 3 months. As with every other workshop, a meet was conducted with the division members to discuss topics to be covered.

**Others:**

A team was chosen which consisted of two members from each division which would be dedicated to maintaining the Facebook page, Sanskrit and Foreign Languages Club, BPHC. The page has seen a very good outreach and has been updated frequently with our events being covered, as well as Diwali, Christmas and New Years posts wherein all divisions covered the way the festival was celebrated in their respective country.

**BITS Embryo Talks, Semester 1, 2018 -19****August****1. BITSians' Day talk, 3rd Aug**

**This BITSians' Day we had very own alumni Naresh Vaseem and Sanket Deshpande,** to give us a glimpse of their journey through BITS, a journey of those invaluable years that makes the tag worth it

**2. UPSC talk by Anudeep Durishetty, 20th Aug**

Sounds as grand as it is. But behind every success there is a story, there is a struggle, there are failures. **Anudeep's story is one you should know. It is an example, an inspiration for everyone who ever thought of giving up.**

Starting out with his BITSian life, he spoke of BITS as a place which taught him how to get out of his comfort zone and how to accept the fact that you are not the only genius out there!

**3. Foreign internship talk, 25th Aug**

Everyone is fascinated by thought of doing internship abroad. But there always plenty of doubts when it comes to the application process. We had our seniors Kartik Bali, Aditi Sharma, Gajraj Rathore and Archana Nagarajan to help clarify all our doubts and help us bag one of the best foreign internships.

**4. Masters in Management abroad talk by Mr. Ramit Mehta, 30th Aug**

To give us some guidelines on the path to take and how to take on the difficulties that arise in this journey, we had Mr. Ramit Mehta, a BPHC alumnus from the batch of 2011, who on graduating went to Duke University in North Carolina, US and completed a business masters in 2016. He took some time out to address us through a telepresence talk.

September

5. Earn While You Learn, 7th Sep

Meritorious students shared how you can channelise your talents and earn money while working from the comfort of your hostel room. Various paths which can be taken were discussed and students also shared how they are able to adjust work and studies in their schedule. Digital Marketing, Freelancing, Stock trading etc. were among the discussed topics.

6. Selfienomics, 14th Sep

Revant Himatsingka, renowned author of Selfienomics, was at his witty best when he interacted with the BITSians this Friday evening. His life has been an inspiration to millions of people. He made sure everyone carried a fragment of his journey when they finally left the room.

7. Demystifying Data Science, 24th Sep

Mr. Alok Ranjan, a Principal Data Scientist at Deloitte, spoke about his experience in the field of data science. It was an engaging session, and his quirky sense of humor made it all the more interesting. **The main objective of his talk was to develop an interest in data science in the student's mind.**

8. BITS2MS/PhD, 27th Sep

We had Mr. Abhishek Manikonda, BPPC alumnus from the 2007 batch, who did his Masters and PhD from University of North Carolina Charlotte give a very insightful talk about the application process for applying to universities for MS or PhD abroad.

October

9. Nephroplus by Mr. Kamal Shah (ATMOS), 26th Oct

From being an application developer for Apple to co-founding Nephroplus, India's largest chain of dialysis centres, he has come a long way through. Mr. Shah inspired all the budding entrepreneurs with his inspirational story and motivated them immensely.

10. Blockchain by Mr. Sanachit Mehra (ATMOS), 26th Oct

Mr. Sanachit Mehra one of the very best experts on Blockchain technology in the country explained from scratch how the technology works and its manganous potential. It proved to be an immensely informative for the audience.

11. Jumpstart 2.0 (ATMOS), 27th Oct

JUMP START 2.0, the innovative panel was successful in accomplishing its motive of imparting knowledge through various innovators, the panel welcomed our young tech genius Mr. Anand Tadar with heights of inspiration who developed goggles for the blind (64B) based on the principle of echolocation, in class 12th itself, breaking notions of geographical isolation and financial constraints. Dr. Vasudevan Rajagopalan- the Plastic Man of India. He developed an innovative method to reuse plastic to construct better, more durable and more cost-effective roads. Narayana Peesapaty- not an engineer, but an innovator by necessity. The founder of Eat Your Spoon/Bakeys saw the problems created by plastics and hence invented edible cutlery. He has also augmented production capacities to bridge the gap between demand and supply.

Dr. Vikas Mahatme- an MP, an ophthalmologist, and a social entrepreneur. The developer of "Woodcutter's Nucleus Cracking" and the man behind innovative social campaigns such as "Aankhwali Pum-pum" and "Right to Health Movement". All of them seek towards change through their innovation and this panel is just about the connecting dots in their journey which brought a charm of inspiration in the audience.

12. Ode To 26/11 by Praveen Teotia and Sanjay Govilkar (ATMOS), 27th Oct

Ex MARCOS Commando, Praveen Teotia and Inspector Sanjay Govilkar presented to the audience their enthralling stories of the night of 26/11. The brave men described how the situation transpires on the front line, the stories of brave men and women they worked with. Regardless to say, the audience was filled with pride and immense respect for the forces.

13. Dr. Subramanian Swamy (ATMOS), 28th Oct

**To end the 7th Edition of our college's technical fest, ATMOS, with grandeur, we had Mr. Subramanian Swamy come and enlighten us through a talk broadly detailing the economic condition and climate of India with respect to the world. The talk ended as it began, with a standing ovation and crowd holding great respect in their eyes for the financial and political maestro of our country.**

November

## 14. BITS Colloquium: Indian Human Spaceflight Programme, 15th Nov

Our esteemed faculty members invited Dr. V.R. Lalithambika (Director, HSP) for a live interactive session on. It was an amazing opportunity to meet the lady who leads India's "Manned Mission" to Space.

## 15. Higher Studies Abroad, Hansa, 19th Nov

A talk by an alumna of the BITS Pilani Campus (Batch of 2005), a Fulbright Scholar in Higher Education and the co-founder of 'Hansa', setup by few BITSians and IITians, Mr. Sasidhar Sista. Hansa is a data-science-powered research tool that helps students analyze universities and programs that best match your capabilities, expectations and interests. The talk laid out future prospects for financing and choosing the apt university for oneself.

## HINDI TARANG

## August

- As a part of Fervour'18, the club conducted the fun-filled event 'Isharon Isharon mein' on 29th August. It was a kind of dumbcharades in which the participants had to come up in teams of two.

## September

- The club had its auditions for the semester on 5th of September. The turn out was great and we got exceptionally good writers and speakers inducted to the club.
- On the occasion of Hindi diwas, 14th September, the club had its one of the major events of the semester '**Eti Bhaukaalam' in the OAT. It was an evening filled with poetries creations of our writers** covering various aspects of our society from love and women empowerment to comedy fun-filled pieces.
- Club meetings were held.

## October

- The regionals for 'Irshad', the major slam poetry event of BITS Pilani K.K. Birla Goa Campus, were conducted in our campus by the club. We had two finalists who represented the campus at Goa campus's **cultural fest, 'Waves'**.
- The club performed a short poetic conversation 'Kaal' on the eve of ATMOS'18 Inauguration on 25th of October' written originally by the writers of the club.
- We also had a slam poetry performance as a part of the Inaug.
- Club meetings were held.

## November

- Club meetings.  
The club regularly had meetings conducted for discussing ideas related to the inaugs and the events **to be conducted this as well as the next semester. The concept of "story telling" has been the major topic for discussion in the recent meetings.**
- Social media reach.  
The club recently had its Instagram page started. The FB page includes posts commemorating **poet's** birthdays, death anniversaries, the creation of our own writers, festive posts and many more.

## JOURNAL CLUB ARCHIVES

## Key Statistics

- 30+ club related activities organised over the semester
- Cumulative Word Count: 44,000+ words published in our articles over this semester
- Two print issues, regular online releases, two events and more

ENTRY 1: LGBTQ Series (6000+ words)

DATE: 07-06-18 to 13-06-18

HANDLED BY: Aishwarya Rebelly

TYPE OF ACTIVITY: A series of SEVEN articles published over summer. This Journal Club initiative is targeted at raising awareness about the queer community and that a queer support group exists on campus.

ENTRY 2: Opinion Editorial - Lynchings and Mob Justice (~ 700 words)



POSTED ON: 05-07-18

WRITTEN BY: Niharika Shankar

ENTRY 3: Fee Hike Protests and KMB Deal (~ 1500 words)

POSTED ON: 16-07-18

WRITTEN BY: Rohit Dwivedula, Siddharth Sampath

ENTRY 4: Whispers in the Woods 2.1 (~ 6000 words)

DATE AND VENUE: 31-07-18, G101

TYPE OF ACTIVITY: A freshman issue of our bi-semesterly magazine. Print issues of this 21-page magazine were distributed during admissions to the entire 2018 batch. Managed the entire content, design and sponsorship of the magazine in-house.

HANDLED BY: Rohit Dwivedula

ENTRY 5: JC CORE COMMITTEE MEET

DATE AND VENUE: 06-08-18, 6 PM, MESS 1

SUMMARY OF MEET: Possible options for fervour events were discussed. Reinductions, ideas for upcoming projects and the budget were also talked upon.

**ENTRY 6: Reinductions for the '17 batch**

DATE AND VENUE: 10-08-18, F108

Type of activity: Reinductions were conducted for the 2017 batch.

ENTRY 7: Article - Heavy Flooding in Kerala (~ 500 words)

POSTED ON: 19-08-18

WRITTEN BY: Sandeep Jimmy

ENTRY 8: Fervour Event- Bullseye

DATE AND VENUE: 31-08-18, 6PM, F108

HANDLED BY: Vamsi Nallapareddy, Raghavendra Challawer

Type of Activity: Bullseye was conducted as the Journal Club event for fervour.

**ENTRY 9: Inductions for the '18 batch**

DATE AND VENUE: 04-09-18, F108

ENTRY 10: Core Committee Meet

DATE AND VENUE: 07-09-18, Mess 1

SUMMARY OF MEET: This meet was called as to finalize the new inductees list

ENTRY 11: INTRODUCTORY MEET FOR ALL INDUCTEES

DATE AND VENUE: 14-09-18, F108

TYPE OF ACTIVITY/ SUMMARY OF MEET: Intro meet serves as a platform where new inductees get to know the nature of work, the different projects we take up at JC and interact with their seniors.

ENTRY 12: Humans of BPHC Meet

DATE AND VENUE: 22-09-18, Mess 1

ORGANISED BY: Ramita Koleti, Vinith Bhandari

SUMMARY: Introductory meet to discuss the page, the profiles and the stories we write.

ENTRY 13: Work Allotment Meet

DATE AND VENUE: 28-09-18, F207

ORGANISED BY: The office, Core committee

SUMMARY: Work regd Pre-Atmos Mag, Post-Atmos Mag was discussed

ENTRY 14: Freshers Interviews

Recording date: 17-09-18

Release date: 30-09-18

ENTRY 15: Game Night

DATE AND VENUE: 16-10-18, ELAS Room, SAC

TYPE OF ACTIVITY: A club event where members participate in games like wolf, cards against humanity, Scrabble, contact, monopoly, etc

ENTRY 16: Pre-Atmos Magazine, Technocrat (~8500 words)

RELEASE DATE: 25-10-18

HANDLED BY: Vamsi Nallapareddy, Siddharth Sampath (writers and editors were given due credits in the magazine, online and offline issues both)

TYPE OF ACTIVITY: This edition of the Pre-atmos Magazine brings out the difficulties department and tech Assocs behind Atmos face, the technical secretary interview, advice column to GSoC aspirants and various other articles.

ENTRY 17: Journal Club Meet

DATE AND VENUE: 02-11-18, G108

SUMMARY OF MEET: Discussion of ideas for WITW 2.2, VM events, SU report card series and TNNR and volunteering for said projects.

ENTRY 18: Human Library

DATE AND VENUE: 03-11-18, F102

TYPE OF ACTIVITY: In collaboration with Human Library Hyderabad, we conducted an event aimed at spreading the stories of everyone's book of life.

ENTRY 19: Opinion Editorial- Sabarimala Verdict: Two Sides of the Story (2000 words)

POSTED ON: 11-11-18

HANDLED BY: Prajwal Vijaywargiya, Tarun Agrawal

ENTRY 20: Game Night 2

DATE AND VENUE: 17-11-18, ELAS Room, SAC

TYPE OF ACTIVITY: Club event where the members come together to play games such as Monopoly, Scrabble, Uno etc.

ENTRY 21: OpEd on sexual harassment on campus - Ground Realities (~800 words)

POSTED ON: 25-11-18

WRITTEN BY: Asha Cherukuri, Aditya Gayatri Sastry Kaipa, Niharika Shankar

ENTRY 22: Spotlight on the Internal Complaints Committee (~1200 words)

DESCRIPTION: An article on ICC, the body that deals with sexual harassment on campus

POSTED ON: 27-11-18

HANDLED BY: Niharika Shankar

ENTRY 23: Whispers in the Woods 2.2 (~4500 words)

DISTRIBUTION DATE: 28-11-18

HANDLED BY: Raghavendra Challawer, Aditya Gayatri Sastri Kaipa

TYPE OF ACTIVITY: This is the club's official newsletter. The newsletters were distributed in the hostels, library and the mess.

ENTRY 24: Whispers in the Woods Crossword Challenge.

DATE: 28-11-18

HANDLED BY: Saandra Nandakumar, Ananya Mohapatra

TYPE OF ACTIVITY: A crossword puzzle in WITW 2.2 with prize money of Rs 1000. The winners were drawn from the set of all correct and complete entries.

ENTRY 25: SUC Report Card Series (7000+ words)

DATE: 30-11-18 to 25-12-18

HANDLED BY: Shanmukh Kali Prasad, Rohit Dwivedula

TYPE OF ACTIVITY: The SUC Report Card, is a series of articles which examines the work done by the current SUC over the semester, tracking promises kept and not fulfilled by the elected representatives. Consisting of 6 articles and 7000+ words of analysis, these articles required significant time in interviewing, transcribing, validating, drafting and editing.

ENTRY 26: Journal Club Library

Type of activity: About 45 books that belong to JC are with Rohit Dwivedula, a core committee member.

Entry 27: Humans of BPHC (10000+ words)

Description: Humans of BPHC is a Facebook page that is run by Journal Club, BPHC that focuses on bringing out various stories of people who play a fundamental role in BPHC.

- 1) BITSIAN Day Series: This is a series of anecdotes from every single batch of students that BPHC has ever seen. About 15 posts were released as a part of this series.
- 2) An anonymous poem was published on the LGBTQ scenario after the verdict on IPC 377 on 09-09-18
- 3) An article on Mr.B. Shivakumar and Mrs.K. Shamsun of CP-05, Connaught Place was published on 16-10-18
- 4) An article on Parakh M. Gupta, a 4th yearite doing his PS-2 was published on 18-11-18.
- 5) An article on Pranesh Bhargava, a professor at the Humanities Dept, BPHC was published on 26-11-18

ENTRY 28: Convocation Media Team

Description: Journal Club members volunteered during Convocation 2018 on 28-07-18

ENTRY 29: BITSCAN Articles

Description: Journal Club members Poornima Venkatapuram and Vamsi Nallappareddy volunteered and wrote articles for BITSCAN, the annual magazine of BPHC.

ENTRY 30: Talk Organised by Maya Vinai

Description: Anudeep Reddy, a Journal Club member covered a talk organised Mrs. Maya Vinai

EVENTS BY SWARANJALI - 1st SEMESTER OF 2018-19

Swaranjali has been very active this semester and has held close to 6 meetings in total. The club met twice a week in the mornings for practice sessions. The list of events for the semester is as follows:

1. CLUB ORIENTATION

Swaranjali introduced itself to the freshers during the orientation and gave them an idea of the club's activities on campus.

2. INDUCTIONS

3. JANMASHTAMI CELEBRATIONS: 4<sup>th</sup> September 2018

The event was held in the LTC in celebration of janmashtami. The club put up Indian classical music and dance performances in praise of Lord Krishna.

4. DURGA PUJA CELEBRATIONS: 17<sup>th</sup> October 2018

The club members performed in praise of Goddess Durga for Durga puja conducted by the Bengali Regional Association, Gitanjali.

5. COMMEMORATION OF 125<sup>th</sup> YEAR OF SWAMI VIVEKANANDA'S CHICAGO ADDRESS: 30<sup>th</sup> October 2018

The members of Swaranjali performed for the commemoration of 125<sup>th</sup> year of Swami Vivekananda's Chicago address along with Dr. Debashree Bandyopadhyay.

6. ATMOS INAUGURATION PERFORMANCES: 25<sup>th</sup> October 2018

Swaranjali gave 2 performances for the informal inauguration of Atmos'18. The music segment of the club performed a fusion of the two different versions of the classical song 'Albela Sajan' and the dance

segment did a jugalbandi of 3 different Indian dance forms namely Bharatanatyam, Kuchipudi and Kathak, the first of its kind on campus.

#### 7. SPIC MACAY CONCERT: 16th November 2018

The club members actively volunteered in hosting a Spic Macay concert by a well-known 'A' grade All India Radio artist, Shri Sikkil.C.Gurucharan.

Designers Anonymous Club Archive

Workshops and Work sessions:

#### Work session #1: Sticker's

Date: 13th August 2018

DA had its first work session **on stickers on 13th August in VFX Room. During the work session 2nd yearite's** were asked to make stickers, the turnout was pretty good and at the end of work session we made about 32 stickers.

Although this work session was the first to be held this semester, the club has been pretty active since the end of the last academic year itself. Last semester we had inductions for the core committee and inducted 5 people based on their club activity.

Workshop #1: Illustrator Basics

Date : 22nd August 2019

The design club of the BITS Pilani Hyderabad Campus, Designers Anonymous, held its first workshop of the semester on Illustrator on the 22st of August. The workshop was conducted by 2 of the core committee members and 8-10 volunteers. A large number of people turned up for the same, filling the hall F102.

During the workshop, the participants were taught how to make a wallpaper, and in the process they learnt how to use the tools and interfaces involved in the software. The team of volunteers kept circling around the room, making sure nobody was left with any doubts.

Workshop #2: Photoshop Basics

Date : 1st September 2018

**DA organized it's second workshop was on Photoshop basics as a part of fervour and attendees were** given few necessary files beforehand and were taught basics of photoshop like hue, saturation, contrast etc., And they were also taught to make another poster which included basic like gradient, image crop etc.,

Re-Induction Tasks:

Date : 6th September 2018

1. Artwork using maximum of 3 colours.
2. Crossover Movie Poster
3. Monster Project

Monster Project Artwork

Work session #2: Photoshop and Illustrator

Date: 24th October 2018

This is the first work session conducted after the inductions for 2018 batch. The main motive of this work session is to clear out doubts on basics of illustrator and photoshop for 2018 batch.

Work session #3: Photo manipulation

Date: 5th November 2018

Photomanipulation is very well known and popular state of art which explores most of the photoshop was conducted on 5th of November 2 of the Core committee members organized this event.

Club Activity:

Throughout the semester, Designers Anonymous occasionally made design creatives for other clubs for their events. New fields of artwork were explored e.g :Animated design in After Effects and 3D modelling in Blender.

Facebook Posts:

- #1 : 22nd May 2018
- #2 : 17th June 2018
- #3 : 30th June 2018
- #4 : 3rd August 2018
- #5 : 15th August 2018
- #6 : 21st September 2018
- #7 : 9th October 2018
- #8 : 27th October 2018
- #9 : 13th November 2018

Link to our Facebook page:-

[facebook.com/designclubbphc](https://www.facebook.com/designclubbphc)

Link to our Behance profile:-[behance.net/da\\_bphc](https://www.behance.net/da_bphc)

Link to our Instagram profile:-[instagram.com/da\\_bphc](https://www.instagram.com/da_bphc)

Comedy Club activities

### 2018-19 -

Completed:

1. Organised the bitsians day open mic, in collaboration with the SUC.
2. Performed at the informal innaug for Atmos.
3. One of our club members, performed the opening act for Naveen Richard.
4. Regular meets and practice sessions were organised at Nescafe lawns.

Proposed :

1. To organise an open mic as soon as college reopens.
2. To try to assess the feasibility of organising a full standup comedy open mic in the Auditorium.
3. To make HaHa Hunt 2019 a one-of-a-kind comedy show by making the format as Alternative Comedy.
2. So far, 2 regionals have been organised, with 2 more in process.

2017-18 :

1. Organised the extremely successful bitsians day open mic.
2. Performed at the Atmos informal innaug.
3. Our club members won both the 1st & 2nd prize at the standup hunt held at iit-h.
4. We were the regional winners of the standup hunt of saarang, iit-m.

### **PHOTOG CLUB**

0. Orientation

1. **DSLR workshop: The basics of handling a camera and it's operation were taught in this session.**
2. Photog race: treasure hunt event conducted during fervour week
3. Induction
4. IPF talk: An interactive session by indian photography festival regarding different styles of photography and promotion of their event in our campus.
5. Sony talk: An informative session about the advent of Mirrorless cameras and hands on experience of the whole range of Sony mirrorless cameras
6. Workshop 1 - using the equipment: Club members learnt using strobes and artificial light sources to create portraits.
7. Photowalk 1 - Charminar: around 30 members participated in this photowalk which focused on mainly street, street portraits and historic architecture photography.

8. Sanskriti night: sanskriti for photog was divided into three parts:
  - a. Pre-sanskriti shoot for regional assoc heads
  - b. Photobooth setup which was active from 7:30 pm to 11 pm. A total of about 1500 pictures were clicked by the official designated freelancers and the the main camera at the photobooth
  - c. And the coverage of the events inside.

All the pictures from sanskriti have been uploaded on drive and the link shared on FEG

Other than that, we reactivated the page photog enthusiasts, which saw a growth of about 300 members. **The 'Theme of the week' initiative was a great success which resulted in about 80-100 new posts put up for review and suggestions every week from different members.** This helped a lot in bringing out the photographer inside everyone.

#### QUIZ CLUB

##### Achievements -

1. On 6th and 7th August, Aniruddha Singhal (accompanied by Shouvik Sarkar and Gokul Kumar M) organised a quiz in NISA Hakimpet for their 50th anniversary, as a Quizmaster.
2. On 28th September, Ishan Rai and Ashwath Sajith won the 1st and 2nd prize respectively in the Rajagiri National Business Quiz (RNBO), held in our campus by the Rajagiri Centre for Business Studies, Cochin.
3. On 29th September, Kushagra K Chanda and Shaheer Azam participated in the K-Circle Open General Quiz (QMs Krishnamurti J and Suraj Menon) held at Phoenix Arena, finished 4th, and were the 1st Undergraduate college team, thus winning a prize money of 1k.
4. On 3rd November, Kushagra K Chanda, Shaheer Azam and Srikanth Sridhar won the 3rd prize in the General Quiz (QM Major Chandrakant Nair) held in Mahindra Ecole College.
5. On 18th November, Kushagra K Chanda and Aniruddha Singhal came 2nd in the Quiz on the Beach Hyderabad Regionals, organized by TAPMI Business Institute, Manipal, and qualifying for the finals to be held at Malpe Beach, Manipal in early Jan.

##### Activities -

1. On 15th August, Harish Subramanian and Siddharth Ratnam organized the Independence Day India Quiz.
2. Inductions were carried out on 6th September with Kushagra K Chanda as QM.
3. Members of the QC participated in the NTPC Electron Quiz on 12th September.
4. Siddharth Ratnam, Harish Subramanian and Gokul Karthik participated in the Hindu Business Line Quiz on 3<sup>rd</sup> September.
5. The BQL (BITS Quizzing League) was successfully carried out with 4 quizzes being held, viz.
  - a. Abhinand Chari 24th Oct
  - b. Siddharth Ratnam 2nd Nov
  - c. Ashwath Sajith 23rd Nov
  - d. Ahmedabad Quiz Club rerun on 28th September.
6. Srikanth Sridhar from QC, in association with the Civil Engineering Association organized the Pro Civil Engineering Quiz on 15th Nov.
7. Quiz Club organized 4 quizzes in ATMOS 2018
  - a. Midnight AV Quiz - QMs Aditya Lohana, Vighnesh Shenoy, Harshvardhan Takawale
  - b. Biz Quiz - QMs Prakhar Sinha, Harish Subramanian, Ashwath Sajith
  - c. SciTech Quiz - QMs Shouvik Sarkar, Shriram Bhat, Gokul Kumar M
  - d. Enigma.

**B3.13 MAJOR MAINTENANCE, RENOVATIONS OR NEW CONSTRUCTION REPORTS****1. New Construction:**

SI No	Description of Activity
1	Construction of car park shed for H5 & H6 tower
2	Construction of new childrens park at H5 & H6 tower
3	Construction of 2 wheeler parking with concrete paving
4	<b>Development of New Children's park at H5 &amp; H6 towers</b>
5	Murrum filling and hume pipe laying at water body area
5	Chain link fencing with MS gate for Superintendents quarters
6	Providing MS grill frames for open drains at play ground and RCC precast drain covers for open drains at hostel QT areas.
7	Providing cupboards & Aluminum mesh doors works in D,E,& F type quarters
8	Construction of New laboratory for Chemical Engineering Department
9	Construction of 1 <sup>st</sup> floor above Gym hall in SAC building
10	Providing Work stations for IT department
11	Providing Work stations for PHD scholars of Physics department
12	Providing Work stations for PHD scholars of Mechanical engineering department
13	Kitchen Modernization works at Mess 1
14	Providing Terrace water proofing to Academic block / LTC class rooms
15	Construction of new storm water drain from Mess 1 near Ram Bhavan & Mess1
16	Providing RO water to Hostels with 150 cum/hour capacity RO plant and SS pipe line work
17	Provision of Chequered plate covers on electrical cable trenches in panel rooms of the Academic and Hostel Buildings
18	Provision of dressing & supports for electrical cables at Connaught Place drain area.
19	<b>Modification of Central AC ODU's/IDU's with new Tosibha units at A,D &amp; B Blocks.</b>
20	Provision of Bollards Lights at Hill Rock Area.
21	Provision of LED lights in Corridors and common areas at Hostel Buildings
22	Provision of LED lights in reading area at Library
23	Provision of inhouse Diwali LED Serial sets
24	<b>Provision of Portable Tower AC's as standby in case of emergencies.</b>
25	Provision of Lock & key single control access of AC remotes at LTC classrooms as a factor of temperature control & monitoring.
26	Provision of additional Grounding system for the labs of academic buildings.
27	Provision of Split AC system in the Mini-Conference hall of C Block.
28	Provision of additional Pesto Flash units at Mess.1 & 2.

## 2. Renovation and Maintenance

SI No	Description of Activity
1	Modification works in Autoclaving laboratory for Biology department
2	Civil & MEP works for installation of UTM at Mechanical engineering laboratory
3	Water proofing works in Hostels in rest areas
4	Cafeteria Upgradation works
5	Providing blinds for windows in Academic block
6	Modification works for AUGSD office
7	Modification works for CADD laboratory works
8	Repairs and rerouting of drain from Mess 1 to Vyas bhavan
9	Meera, Malaviya, Shankar , Krishna & Gandhi bhavan Hostel room internal painting works
10	Additional fire fighting pipe line network for Academic block
11	Mess 1 painting works
12	Modification works in Gym -providing rubber tile flooring, fixing mirrors
13	Sit out area flooring in Play grounds
14	Quarters modification works in D,E & F type quarters like additional working platform in kitchen, providing mirrors and internal painting works, Fixing of exhaust fans in washrooms, replacement of defective LED light fixtures, ceiling fans.
15	Providing SS hooks in hostel rooms
16	Modifications in store room of SAC building
17	Water proofing works in rest rooms of D & E block and in Hostels
18	Incorporation of Auto ON/OFF of DG sets at ESS.1 & 2 with Load synchronization.
19	Incorporation of Single point control wiring of QT Lights at Hostel Buildings.
20	Additional Electrical power points fixing for Charging of Laptops/mobiles at Library
21	Fixing of Additional electrical control wiring at Central Workshop.
22	Termination of LAN & Electrical cables control wiring for workstations of CAD Labs.
23	Termination of LAN & Electrical cables control wiring at EEE labs.
24	Incorporation of additional UPS supply wiring system for CAL Lab-II
25	Incorporation of Electrical Heaters in the Solar Hot Water systems at Hostel Buildings
26	Overhauling of the 500 KVA DG set IC engine at ESS.1 for optimum efficiency and durability.
27	Provision of DG power source back up for Warden quarters.
28	<b>Incorporation of Timers in the Street light's control panels.</b>
29	<b>Calibrated the LT Energy meters (60 No's) at academic and hostel buildings.</b>



**B3.14 MAJOR EQUIPMENT'S ACQUIRED DURING THE YEAR:**

During 2018 a lot of new equipment has been added to support academics, research and development. Details as per Annexure 7 (Part B3).

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
1	Precision source measure unit Keysight	01 nos	1,318,836.00	Dr Souvik Kundu	BRNS DAE project
2	CNC Simulation Software	01 nos	147,500.00	Central Workshop	Institute
3	Heidolph Rotary Evaporatur	01 nos	(EURO 5400) INR 414206	Dr Balaram Ghosh	DST SERB HDAC 3 Project
4	Averaging Extensometer Frame	01 nos	(USD 7185) INR 465105	Mechanical Engg	Institute
5	100kV AC/100kVDC Test Set 150mm Sphere Gap Assembly (Motorised)	01 nos 01 nos	577,952.20	EEE	Institute
6	Epson Projector EB U05 LCD Projector	09 nos	498,586.00	ESD	Institute
7	Smoke Point Analyser with Accessories	01 nos	(USD 3799,) INR 246582	Chemical Engg	Institute
8	ESCO Microprocessor Controlled Airstream	01 no	(USD 14500,) INR 937933	Dr Vamsi Krishna Venuganti	DST 2017 SERB-EMR Project
9	UV-Visible Double Beam Spectrophotometer TS-2080	01 set	349,078.00	Chemistry	Institute
10	SSOT-AK0001-0EU Equipment	01 nos	(USD 4218,) INR 280416 (280185)	Prof N Rajesh	DST SERB
11	Standard Chamber Furnace CWF 1305-230SN	01 nos	412,611.41	Prof Amit Kumar Gupta	DRDR Project
12	3D printer of Raise 3D N2 Plus Dual +5 Spools of Filments+ 1year warranty along with Flashforge Inventor 2+ 2 spools of filments	01 nos	436,010.00	Central Workshop	Institute
13	Software VMS-RESEA	01 nos	(£ 1622 ) INR 144757	Dr Vamsi Krishna Venuganti	ISSAR 2 Project
14	Hedolph Magnetic Stirrer with Heating	02 nos	(Euro 1669) INR 131180	Prof N Rajesh	DST SERB 2017 project
15	Multi Purpose Refrigerated Micro Centrifuge 5430R with attachments & accessories	01 nos	549,938.00	Pharmacy	Institute
16	Ibanez SRFF 805 Hartke VX 3500 Cable Mono to Mono Jack SLIJ 6 mtrs Bespeco Microphone Stand MSF01 Roland KC 350 Marshall Guitar Amplifier MG4 30W MG30CFX	01 Nos 01 Nos 10 Nos 05 Nos 01 Nos 01 Nos	209,130.05	SWD	Institute
17	Electronic Weighing Balance Quintix 125D-10IN SI No: 35107718	01 nos	177,000.00	Central Analytical Lab	Institute
18	Thermo Forma Liquid nitrogen Container Nalgebe, Wheel accessory Cart, Level Arm	01 nos	540,000.00	Prof K Nagamohan	DBT2 Project
19	Thermal Constant Analyser	01 no	(EUR 33500,) INR 2564946	Mechanical Engg	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
20	Microwave Oven Dielectric Resonator (Substrate) TMM10	01 nos	188,800.00	Dr Runa Kumari	RI Grant
21	Auto Clave Portable	01 nos	785,290.00	Pharmacy	Institute
22	Hot Air Oven 95 & 225 Lts	01 & 02 nos	245,818.00	Civil Engg	Institute
23	Wagtech Potatest® PTW 10020	01 no	425,000.00	Civil Engg	Institute
24	Dell Precision Tower 5810 XCTO Base	01 nos	225,380.00	Dr Arshad Javed	DST Project
25	Dell Core Optiplex 7050Desktop	01 nos	148,600.00	Dr Soumya J	DST Project
26	Lenovo Desktop V520 External Hardisk 2TB seagate, DVD Harddriver	03 nos 01 nos	180,953.00	Central Library	Institute
27	Servo Valve for Level Control Trainer	01 no	180,660.00	Chemical Engg	Institute
28	Master Cam Software Upgration	01 no	177,000.00	Central Workshop	Institute
29	Minilys homo genizer	01 nos	364,384.00	Pharmacy	Institute
30	Thermal & Electrical Conductivity of metals Quick Tube Method	02 nos 02 nos	254,319.00	Physics	Institute
31	Z100 TEW Allround Line Table-Top Machine Load Fram Z100 TEW Allround Line Table-Top Machine Load Cell, Control Panel, Sub Load Cell 5kN,BOW Grips,Screw Grips,Compression & Flexur Kit, Extensometer, Software, Environmental Chamber, HF Furnace,HT Extensometer,Documentation, Shipping & Handling	01 nos	(Euro 205245) INR 16078934	Central Analytical Lab	Institute
32	Computerised Izod charpy impoct test motorized notch Cutter	01 nos 01 nos	182,095.00	Chemical Engg	Institute
33	ST 8R Sorvall legend Micro Centrifuge legend Micro 17 Centrifuge Quanto Studio 3 Real Time PCR Thermo forma ULT - 86 frezer upright painted capcity - 368 Liters	02 nos 01 nos 01 nos 01 nos	3,000,000.00	Prof K Nagamohan	Institute
34	Permeability Test model torrent Corrosion analyser Ultrasonic Pulse vector Rebar Locator	01 nos 01 nos 01 nos 01 nos	127,204.00	Civil Engg	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
35	Fiber Modules UTP Modules CISCO 2960 8 port SWITCHES CISCO 2960 24 port SWITCHES CISCO 2960 48 port SWITCHES Unmanageable 8 port SWITCHES Cisco Access Point Fiber Patch Cord I/O s UTP Cat 6 Cable Box RJ45 Connectors box	05 nos 03 nos 05 nos 03 nos 03 nos 15 nos 05 nos 20 nos 100 nos 01 nos 05 nos	834,490.00	Computer Centre	Institute
36	Digital Power & Energy Meter	01 nos	182,900.00	Chemistry	Institute
37	COMSOL Multiphysics RF Module	01 nos	116,820.00	Central Computing Laboratory	Institute
38	Advanced Microstrip Trainer Kit VX-2012A Advanced Microstrip Trainer Kit VX-2012B Microwave Power Meter Micro processor Based Tripod Stand	01 nos 02 nos 01 nos 01 nos	641,595.00	EEE	Institute
39	Extruder Spheroniser Fluid Bed Processor	01 no 01 no 01 no	1,824,988.00	Pharmacy	Institute
40	IRB 120 Robot : 03 kg payload and 0.58m Reac lind 60% against Delivery	01 nos	1,416,000.00	Mechanical Engg	Institute
41	Ventilation Cages	01 nos	715,212.00	Prof D Sriram	DBT TATA Innovation Fellowship
42	PCB L&T Canister	01 nos	661,390.00	Mechanical Engg	Institute
43	FPGA Evaluation Board	01 nos	800,000.00	Dr Soumya J	DST Project
44	Avance Neo 400Mhz oneBay FT-NMR Spectrometer	01 nos	USD 350000, INR 20711250	Central Analytical Lab	Institute
45	HP DL60 Rack Server 1U, HP 1920-48G Manage Switch HP KVM 8port switch HP Monitor 21.5" HP 1650 Storage NAS HP MSA 1040 4port 1GB	20 Nos 03 Nos 04 Nos 04 Nos 01 Nos 01 Nos	4,150,387.00	WILP	Institute
46	Campus Licence for Bentley Academic solutions	01 nos	1,000,000.00	Central Computing Laboratory	Institute
47	Computer Linux instrument Flowsight	01 Nos	733,910.00	Biological Sciences	Institute
48	Bentley Lab Software	01 nos	700,000.00	Central Computing Laboratory	Institute
49	MB SPS Compact Compact Solvent Drying System	01 nos	(EURO 7000,) INR 544859	Chemistry	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
50	Haematology Analyzer Biochemistry Analyzer	01 each	472,000.00	Community Welfare Division	Institute
51	Material for Digital Studio	LS	283,255.00	WILP	Institute
52	Lifepack CR Plus AED inc CPR Manikin Parti Man Emergency Bag	01 nos	164,780.00	Medical Centre	Institute
53	1 Prewired strain Gauge (10-PKG) Liner 3mmgrid 2 Planar Rosettes 3 Instantadhesive for short term use on metal parts 4 8channel USB based stain measurement application	01 no 03 no 03 no 01 no	330,376.00	Dr Arshad Javed	DST-ECR project
54	Dual Syringe Diluter	01 no	477,900.00	Dr Ramakrishna Vadrevu	BRNS Project
55	Magnus Microscope Model INVI Std. Set	01 no	117,500.00	Prof D Sriram	DBT Indo sweden 3 project
56	Work station(Intel Xeon E5,1TB SATA,Nvidia Quadro p600 2GB,)	01 no	105,999.00	Dr Durba Roy	DST-SERB PDF
57	Leica S9 D Trinocular stereo zoom microscope with TL 3000 Light base along with accessories	01no	479,641.00	Biological Sciences	Institute
58	Mastercycler pro S + Control Panel, 230V	01no	345,000.00	Dr Gireesha T Mohannath	DST-Ramanujan Fellow ship project
59	Dell Work station Precision 5820 Tower XCTO Base	01no	179,230.00	Dr Barsha Mitra	RI Project
60	1) Summits make aero branded 40 cfm P/N.SP004,Air dryer, Refrigeration,Platronika 2) Auto Drain Valve. Make:Lenora 3) 200 ltr SS304,Stainless steel air receiver,suitable for standard fittings 4) Filter regulator 1/2" 5)Summits Make, Aerobranded, Air filter 40cfm P/N.SF004DA,5Micron Free filter 6) Summits make aerobranded, air filter 40cfm P/N SF004DX,1 Micron micro filter 7) Summits make, Aerobranded, Air filter,40cfm,P/N.Sf004DY, 0.01 Micron sub-Micro filter 8) SS Pipe line for compressed Air : 9) Model: AL 05, (5 HP) Tank mounted oil free scroll air copressor in Acoustic canopy with standard fittings	01no 01no 01no 01no 01no 01no 01no 01no	801,411.00	Central Analytical Lab	Institute
61	Dell PowerEdge R740	02 nos	731,600.00	Dr Vikranth kumar	DST

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
	Server			surasani	
62	Supply of Equipment 1) Friction slide apparatus 2) Combined coil and flat belt friction apparatus 3) The combined compression and extension of springs apparatus 4) Model of moment of inertia of flywheel 5) Rope brake and dynamometer 6) Screw efficiency apparatus 7) Structural mechanics apparatus	01no 01no 01no 01no 01no 01no	225,640.00	Mechanical Engg	Institute
63	Supply of equipment 1) Cat.No. 1658033fc: Electrophoresis and blotting system 2) cat NO. 1653312 Spacer plates 1.5mm 3) Cat No. 1653365 10Well combs, 1.5mm	01no 01no 01no	169,906.00	Pharmacy	Institute
64	Dell OptiPlex 3050 SFF(Intel Core i5,8GB,1TB,19" Monitor)	30 no	1,150,500.00	Computer Centre	Institute
65	Verfrost single solid door upright freezer fkg 400-Single door upright showcase cooler	01no 01no	121,724.00	Prof K Nagamohan	Opera project
66	DELL Work Station, Precision 7820 Tower XCTO Base	01no	177,236.00	Dr Angan Sengupta	R.I grant project
67	Galaxy 170 S CO2 Incubator with Accessories	01 nos	810,999.00	Biological Sciences	Institute
68	Software Radio Kit and accessories	01 nos	658,346.00	EEE	Institute
69	System Polymer PT 3100D Drive with Regulator with Customs & handling Charges	01 nos	CHF 8250, INR 634635.99	Pharmacy	Institute
70	Design, Manufacturing of Shake Table including foundation Model: UM-ST-200 KN-1	01 nos	2,300,000.00	Dr S C Mohan	DST Project
71	Millicell ERS-2 Volt-Ohm Meter, 1 Set	01 nos	208,705.00	Dr Balaram Ghosh	Institute
72	DeskTop Shaking Incubator model: NB-205	01 nos	120,000.00	Dr Ramakrishna Vadrevu	BRNS Project
73	Apple MAC Book MPXV2HN/A 3.1 GHz dual-core Intel Core i5/8GB RAM/256GB SSD/13" Screen	01 nos	147,900.00	Dr Sharan Gopal	DST SERB Project
74	PHY-1003 LPC 2148 BASED ARM-7 TRAINER KIT	06 nos	117,882.00	EEE	Institute
75	Jasco UV Vis Spectrophotometer Model: V-750	01 nos	(YEN 1185000,) INR 778263.49	Pharmacy	Inst

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
76	Experiment with a Axial-Flow Fan Piston Pump Demonstrator Pelton Turbine Demonstrator Turbine Demonstrator Supply Model Centrifugal Compressor Demonstrator Heat Conduction & Convection	01 nos 01 nos 01 nos 01 nos 01 nos 01 nos	4,031,482.00	WILP	Institute
77	Silverson Heavy Duty Laboratory Mixer	01no	592,830.00	Civil Engg	Institute
78	software for PTV Vissim software and maintenance	01no	429,666.00	Civil Engg	Institute
79	Nucleofector 2d Devices	01 nos	493,500.00	Biological Sciences	Institute
80	Spectro Photometer Nanodrop Make: Thermo Fisher CY509106 Thermo Forma Liquid Nitrogen Container Speed VAC Concentrator SPD1030 P1 Thermo Scientific	01 nos 01 nos 01 nos	1,950,000.00	Biological Sciences	Institute
81	Dual Channel Microphone System Make/Model: MIPRO ACT	06 nos	269,512.00	ESD	Institute
82	aspen one universities Software	01 nos	(USD 2000,) INR 140790.00	Central Computing Laboratory	Institute
83	HP Desktop (intel i3,4GB,1TB SATA, 19" HD Screen, HP Ink Printer 3KVA UPS	01 nos 01 nos 01 nos	114,682.00	Central Analytical Lab	Institute
84	Celestron CPC 925 telescope with accessories	01 nos	498,000.00	Physics	Institute
85	Dell Latitude 3490 BTX	20 nos	837,800.00	Computer Centre	Institute
86	Dell Server Poweredge R540 Server	01 nos	470,000.00	ID	Institute
87	Clean Air Vertical Laminar Air Flow benches	01 nos	139,995.00	Biological Sciences	Institute
88	Universal Laser System Model: VLS 3.6 HPDFO Lens with Handling Charges	01 nos	(USD 16565,) INR 1250393	EEE	Institute
89	Traffic Safety Speed Measuring Device Alcohol Analyser Alcoeasy A30 Sound Level Meter NL52 Ex Rion Fright	01 nos 01 nos 01 nos	696,790.00	Civil Engg	Institute
90	Panther Lathe Machine	03 nos	908,504.00	Central Workshop	Institute
91	Licencing Service for SAP 2000 Ultimate for 10 users	01 nos	295,000.00	Central Computing Laboratory	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
92	HOBART, Model:N50,N50 Mixer Make : HO Bart	01no	281,360.00	Civil Engg	Institute
93	Time Correlated Single Photon Counting Fluoresence Spectro meter with handling charges	01 nos	(UKP 48213,) INR 4477860	Central Analytical Lab	Institute
94	Steady State Modular Fluoresence Spectrometer with handling Customs & Charges	01 nos	(USD 61125,) INR 4396316	Central Analytical Lab	Institute
95	Keysight ADS Premier University Licence	05 nos	1,180,000.00	EEE	Institute
96	Supply & Installation of Cisco Smartnet Services, Deployment Services	33no	30,211,891.00	Computer Centre	Institute
97	Apreo Lo VAC - The core instrument	01no	5,570,361.00	Central Analytical Lab	Institute
98	sonic ultrasonic processor VCX750	01no	(USD 6100,) INR 446808	Chemistry	Institute
99	HDM-4 Software Academic Licence	01 nos	(USD 1500,) INR 105592.50	Civil Engg	Institute
100	SHARP Digital MFP MX- M754N Printer	0 Nos	740,450.00	ESD	Institute
101	Complete Western Blotting Setup Mini P4 System/MT- BLOT/MOD/PP HC	01 nos	188,853.00	Dr Vivek Sharma	RLS Fellowship
102	Fluke Digital Multimeter 15B+	20 Nos	135,700.00	EEE	Institute
103	Dell OptiPlex 3050 Small Form Factor BTX Dell Latitude 3490 BTX Laptop Intel Core i5-7200U,8GB DDR4,Ubuntu Linex 16.04,14"HD screen.	20 Nos 25 nos	1,843,750.04	Computer Centre	Institute
104	Software (WINHOME 10 SNGL OLP NL Acdmc Legalization HetGenuine)	59 Users	509,618.40	Computer Centre	Institute
105	Tongue Carcinoma Human Pharyngeal Carcinoma Human	01 nos 01 nos	119,890.00	Biological Sciences	Institute
106	TRNSYS Software	01 nos	(USD 5581.25) INR 488040	Central Computing Laboratory	Institute
107	Complete Westren Blotting set-up with Accessories, Bio-Ra	01 Nos	188,853.00	Dr Vivek Sharma	RLS Fellowship
108	Jaw Crusher	01 nos	178,500.00	Civil Engg	Institute
109	HP Pavillion x360 14 CD0055TX Laptop HP M227fdw Laserjet pro all-in-one	01 nos 01 nos	125,356.00	Dr Surya Shankar Dan	Opera award project
110	SIMULIA Academic Abaqus software	01 nos	332,010.00	Central Computing Laboratory	Institute
111	Dell Work station(Precision 3630 Tower CTO BASE)	01 nos	179,950.00	Dr Harish V Dixit	RIG
112	Probe Station	01 nos	443,205.00	EEE	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
113	PU Cylindrical Mould ZI2028 PU Bhem Mould ZI2026 Cement Cube 70.6x70.6x70.6 Cast Iron Concrete Mould ZI2024I PU Mould ZI 2027	10Pcs 10Pcs 10Pcs 10Pcs 20Pcs	132,868.00	Civil Engg	Institute
114	Ni Data Acquisition Hardware NI 9234 BNC Series Sound & Vibration input module	01 nos	152,565.00	Dr S C Mohan	RI Grant
115	Heidolph Rotavac Control Vacuum Pump	01 nos	(Euro 1700) INR 144800	Dr Manab Chakravarty	CSIR & PDF Project
116	Linkproof 1008 Upgrade to Linkproof 2008 Software	01 nos	837,800.00	Computer Centre	Institute
117	Bentley Software	01 nos	657,640.00	Central Computing Laboratory	Institute
118	Seismic Miniature Low Noise Coaxial Cable	04 nos 04 nos	198,975.00	Civil Engg	Institute
119	Seismic Miniature Low Noise Coaxial Cable	02 nos 02 nos	108,150.00	Dr S C Mohan	DST-project
120	Electronic Over Head Stirrer Propeller Stirrer Plate Stand Boss Head Clamp Magnetic stirrer with Heating	01 nos 02 nos 01 nos 01 nos 01 nos	262,148.00	Civil Engg	Institute
121	Polishing & Cutting Machine Ultrasound Cleaner Low Speed Saw & Consumables	01 nos 01 nos 01 nos	623,942.00	Prof Amit Kumar Gupta	DRDO Project
122	Muffle Furnace MX10-13TP	01 nos	175,182.00	Chemical Engg	Institute
123	LCV type Bench Fume Hood WITH Exhaust system & Fan	02 nos 01 nos	336,747.00	Chemistry	Institute
124	READY TO GO (RTG Legend 430 1U Server)	02 nos	299,720.00	Dr Debashree Bandyopadhyay	DST-SERB Project
125	Vibration Meter	01 Nos	137,929.00	Mechanical Engg	Institute
126	One Time Deployment Service with One Year Support One Time Deployment Service of Open Stack for 5 Servers with One Year Support	Ls	678,500.00	WILP	Institute
127	Dell Mobile workstation Mobile Precision 7730 CTO BASE (8th Gen Intel Core i7, 2x8GB DDR4, 17.5" FHD)	01 Nos	185,496.00	Dr Sudeeptra Mishra	RI Grant
128	Spray Dryer Model SPD-P-111 Portable	01 nos	1,964,435.00	Pharmacy	Institute
129	ZedBoard Zynq-7000 ARM/FPGA SoC Development Board, along with customised Acrylic Sheet	04 nos	149,497.00	EEE	Institute



Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
130	Comsol Multiphysics Software	01 nos	620,326.00	Central Computing Laboratory	Institute
131	Powder Mixing unit	01 nos	330,750.00	Central Workshop	Institute
132	MicroPulser Electroporator Including CuvetteChamber	01 nos	194,806.00	Dr Ruchi jain Dev	DBT-Ramalingaswamy project
133	Deep freezer RQV-400 Plus led Remi voltage stabilizer VS-03	01 nos 01 nos	163,029.00	Chemical Engg	Institute
134	Security Appliance Sophos XF 553 CTEA xG550 Sophos EP 553	01 nos 01 nos	1,680,000.00	Computer Centre	Institute

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'Annexure B3-1'  
(3 Pages)  
Ref. AR 2018, Page No. B3-1

### ADMINISTRATIVE BODIES

#### The names and designations of Senior Officers of Hyderabad campus

<b>Director</b>		
1.	Prof. G Sundar	Director
<b>Dean(s)</b>		
1.	Prof. Niranjan Swain	Dean, Administration (Hyderabad Campus)
2.	Prof. Suman Kapur	Dean, International Programmes and Collaborations Division (Institute-wide)
3.	Prof. Sourī Banerjee	Dean, Faculty Affairs (Institute-wide)
<b>Associate Dean(s)</b>		
1	Prof. Vidya Rajesh	Faculty Affairs (FAD)
2	Prof. Anupam Bhattacharya	Sponsored Research and Consulting (SRCD)
3.	Prof. Bivudutta Mishra	International Programmes & Collaboration (IPCD)
4	Prof. Sankar Ganesh	Practice School (PSD)
5	Prof. Punna Rao Ravi	WILP
6	Prof. A Vasani	Academic - Undergraduate Studies
7	Prof. Venkata Vamsi Krishna Venuganti	Academic - Graduate Studies and Research
8	Prof. Sandip Shridharrao Deshmukh	Student Welfare (SWD)
9	Prof. Meenakshi Viswanathan	Alumni Relations
<b>Head of Departments</b>		
1.	Prof. Srikanta Dinda	Chemical Engineering
2.	Prof. Sridhar Raju	Civil Engineering
3.	Prof. Sanket Goel	EEE
4.	Prof. Amit Kumar Gupta	Mechanical Engineering
5.	Prof. D Sriram	Pharmacy
6.	Prof. Tathagata Ray	CS & IS
7.	Prof. Nagamohan Kommu	Biological Sciences
8.	Prof. Manab Chakravarty	Chemistry
9.	Prof. Sunny Jose G	Humanities & Social Sciences
10.	Dr. Sudatta Banerjee	Economics & Finance
11.	Prof. Dipak Kumar Satpathi	Mathematics
12.	Prof. P K Thiruvikraman	Physics

<b>Faculty-in-Charges</b>		
1.	Prof. Aruna Malapati	Centre for Innovation, Incubation and Entrepreneurship (CIIE)
2.	Prof. Aivelu Manga Parimi	Placements
3.	Dr. Parameshwaran R	Placements
4.	Dr. Arti Dhar	Community Welfare
5.	Dr. Rahul Nigam	Teaching Learning Centre (TLC)
6.	Prof. Ramesh Babu A	Centralized Purchase
7.	Prof. R Gururaj	Computer Centre
8.	Prof. Amit Nag	Admissions
9.	Prof. Pradyumn Kumar Sahoo	Time Table & Exams
<b>Other In-charges</b>		
1	Dr. Ramakrishnan Ganesan	Central Analytical Laboratory
2	Dr Vikranth Kumar Surasani	Central Computing Laboratory
3	Dr. Maya Vinai	Publications & Media Relations
4	Prof. N. Suresh Kumar Reddy	Workshop
5	Dr. Raja Raja Varma Murari	Student Activity Center
6	Prof. Geetha Kumari	Website
7	Prof. Kannan Ramaswamy	Convener - Academic Counselling Cell
8	Prof. Srinivasa Prakash Regalla	Convener - Colloquium
<b>Coordinators</b>		
1	Dr. N Kishore Kumar	National Service Scheme
2	Prof. K Srinivasa Raju	Centre of Excellence in Water Resources Management
<b>Professor(s) In-Charge:</b>		
1	Prof. Chittaranjan Hota	BITS Entrance Examinations
<b>Hostel Resident Wardens</b>		
1	Prof. Kumar Pranav Narayan	Viswakarma Bhawan
2	Dr. Arkamitra Kar	Gautam & Malaviya Bhawan
3	Dr. Jagan Mohan Jonnalagadda	Krishna Bhawan
4	Dr. D Purnima	Malaviya Bhawan
5	Dr. Phaneendra Kiran C	Budh Bhawan
6	Dr. Syed Ershad Ahmed	Ram Bhawan
7	Dr. Sounak Roy	Vyas Bhawan
8	Dr. Swati Biswas	Meera Bhawan
9	Dr. Sabareesh Geetha Rajasekharan	Gandhi Bhawan
10	Prof. Onkar P Kulkarni	Shankar Bhawan
11	Dr. Thota Nagaraju	Valmiki Bhawan

<b>Hostel Non-Resident Wardens</b>		
1	Dr. Prasanth Kumar Samanta Ray	Gautam Bhawan
2	Dr. Santosh Kumar Mahapatra	Vyas Bhawan
3	Dr. Pranesh Bhargava	Budh Bhawan
4	Dr. Shaikshavali Chitraganti	Viswakarma Bhawan 1
5	Dr. Piyush Khandelia	Viswakarma Bhawan 2
6	Dr. Nitin Kotkunde	Valmiki Bhawan
7	Dr. Mohan S C	Gandhi Bhawan
8	Dr. Vivek Sharma	Shankar Bhawan
9	Dr. Satish Kumar Dubey	Ram Bhawan
10	Dr. Manish Kumar	Krishna Bhawan
11	Dr. T S L Radhika	Meera Bhawan
12	Prof. Alivelu Manga Parimi	Malaviya Bhawan

'Annexure B3-2'

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**DETAILS OF ADMISSIONS MADE DURING THE YEAR 2018****(A) Integrated First Degree Programmes at Hyderabad Campus:**

<b>First degree – 2017-18</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
B.E.: Chemical (A1)	62	49	13
B.E.: Civil (A2)	64	60	4
B.E.: Electrical and Electronics (A3)	106	94	12
B.E.: Mechanical (A4)	148	135	13
B. Pharm. (A5)	50	19	31
B.E.: Computer Science (A7)	185	164	21
B.E.: Electronics & Instrumentation (A8)	58	46	12
B.E.: Electronics and Communications (AA)	122	99	23
M.Sc.: Biological Sciences (B1)	42	34	8
M.Sc.: Chemistry (B2)	47	34	13
M.Sc.: Economics (B3)	79	62	17
M.Sc.: Mathematics (B4)	75	63	12
M.Sc.: Physics (B5)	55	44	11
<b>Totals</b>	<b>1093</b>	<b>903</b>	<b>190</b>
This list includes; 34 International Students, 1 Board Topper (A7 - 1) & 2 Staff Children (B3 - 2)			

**(B) Higher Degree Programmes:**

<b>Higher Degree Programmes - 2017-18</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
M.E Biotechnology	20	5	15
M.E Chemical	8	1	7
M.E Civil with specialization in Structural Engineering	22	22	0
M.E Civil with specialization in Transportation Engineering	14	7	7
M.E Communication Engineering	19	13	6
M.E Computer Science	33	25	8
M.E Design Engineering	24	22	2
M.E Mechanical	22	19	3
M.E Microelectronics	27	11	16
M.E. Mechanical with specialization in Thermal Engineering	19	18	1
M.Pharm with specialization in Pharmaceuticals	21	7	14
<b>Totals</b>	<b>229</b>	<b>150</b>	<b>79</b>

**(C) Higher Degree (3 Year Integrated) Programme:**

	<b>Total</b>	<b>Male</b>	<b>Female</b>
M.E. in Computer Science (with specialization in Information Security)	0	0	0

**(D) Ph.D. Programmes:**

Ph.D. Admissions: II Semester - 2017-18	Full Time			Part Time			Aspirants		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Biological Sciences	7	2	5	0	0	0	1	1	0
Chemical Engg.	2	2	0	0	0	0	0	0	0
Chemistry	3	2	1	2	1	1	0	0	0
Civil	2	2	0	0	0	0	0	0	0
Computer Science	4	1	3	0	0	0	0	0	0
EEE	9	6	3	4	4	0	0	0	0
Humanities & S Sci.	3	2	1	0	0	0	0	0	0
Economics & Finance, Mgmt	0	0	0	0	0	0	0	0	0
Mathematics	2	1	1	0	0	0	0	0	0
Mechanical	4	3	1	0	0	0	1	1	0
Pharmacy	9	5	4	0	0	0	0	0	0
Physics	1	1	0	0	0	0	0	0	0
<b>Totals</b>	<b>46</b>	<b>27</b>	<b>19</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0</b>

Ph.D. Admissions: I Semester 2018-19	Full Time			Part Time			Faculty Input			Aspirants		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Biological Sciences	8	2	6	0	0	0	0	0	0	0	0	0
Chemical Engg.	2	2	0	0	0	0	0	0	0	0	0	0
Chemistry	4	1	3	0	0	0	0	0	0	0	0	0
Civil	3	1	2	1	1	0	0	0	0	0	0	0
Computer Science	0	0	0	0	0	0	0	0	0	0	0	0
EEE	5	2	3	3	2	1	0	0	0	0	0	0
Humanities & S Sci.	0	0	0	0	0	0	0	0	0	0	0	0
Eco., & Fin, Mgmt	3	0	3	2	1	1	0	0	0	0	0	0
Mathematics	3	3	0	0	0	0	0	0	0	0	0	0
Mechanical	4	3	1	0	0	0	0	0	0	0	0	0
Pharmacy	5	2	3	1	1	0	0	0	0	0	0	0
Physics	1	1	0	0	0	0	0	0	0	0	0	0
<b>Totals</b>	<b>38</b>	<b>17</b>	<b>21</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**DUAL DEGREES:**

During the Year 2018, a total no of 269 students (out of 269 offers: Priority 1 – 267, Other Priorities - 2) were permitted to pursue concurrently two first degrees under the Dual Degree scheme as per details given below.

Dual Degree - First Priority										
	A1	A2	A3	A4	A5	A7	A8	AA	AB	Total
<b>B1</b>	3	2	8	4	-	2	-	2	-	<b>21</b>
<b>B2</b>	11	4	2	13	-	5	2	3	-	<b>40</b>
<b>B3</b>	2	8	11	5	-	33	4	14	-	<b>77</b>
<b>B4</b>	4	5	6	7	-	28	7	13	-	<b>70</b>
<b>B5</b>	3	4	9	15	-	12	6	10	-	<b>59</b>
<b>Total</b>	<b>23</b>	<b>23</b>	<b>36</b>	<b>44</b>	<b>-</b>	<b>80</b>	<b>19</b>	<b>42</b>	<b>-</b>	<b>267</b>



Dual Degree - Other Priorities															
	A1	A2	A3	A4	A5	A7	A8	AA	AB	B1	B2	B3	B4	B5	Total
A1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
A8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
AA	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
AB	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
B2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
B3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
B4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
B5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>

**TRANSFERS:**

During the Year 2018, a total no of **16** students (11 A-A transfers + 5 B-B transfers) were permitted to transfer from the initial allotment of First Degree programme to the other programmes of First Degree to pursue under the Transfers scheme as per details given below.

Transfers											
	A1	A2	A3	A4	A5	A7	A8	AA	AB	Total	
A1	-	-	1	-	-	-	-	-	-	1	
A2	-	-	-	1	-	-	-	-	-	1	
A3	-	-	-	-	-	1	-	2	-	3	
A4	-	-	1	-	-	-	1	-	-	2	
A5	-	-	-	-	-	-	-	-	-	0	
A7	-	-	-	-	-	-	-	-	-	0	
A8	-	-	-	-	-	-	-	-	-	0	
AA	-	-	-	-	-	2	-	-	-	2	
AB	-	-	-	-	-	-	-	-	-	0	
B1	-	-	-	-	-	-	-	-	-	0	
B2	-	-	-	-	-	-	-	-	-	0	
B3	-	-	-	-	-	1	-	-	-	1	
B4	-	-	-	-	-	1	-	-	-	1	
B5	-	-	-	-	-	-	-	-	-	0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>11</b>	

B-B Transfers						
	B1	B2	B3	B4	B5	Total
B1	-	-	-	-	-	0
B2	-	-	-	-	-	0
B3	-	-	-	-	-	0
B4	-	-	2	-	-	2
B5	-	-	1	2	-	3
<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>5</b>

**VERTICAL TRANSFERS:**

During the year 2018, One student was permitted to transfer from Higher Degree to Ph.D. Programme at Hyderabad Campus.

*Annexure B3-3'*  
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**LIST OF NEW COURSES INTRODUCED THE YEAR 2018**

<b>Second Semester 2017-2018</b>		
<b>Sl.No.</b>	<b>COURSE NO.</b>	<b>COURSE NAME</b>
1	BITS F314	GAME THEORY AND ITS APPLICATIONS
2	CS F402	COMPUTATIONAL GEOMETRY
3	EEE G594	ADVANCED VLSI DEVICES
4	HSS F322	SOCIAL AND POLITICAL ECOLOGY
5	HSS F352	TECHNOLOGY, WORK & SOCIETY
<b>First Semester 2018-2019</b>		
<b>Sl.No.</b>	<b>COURSE NO.</b>	<b>COURSE NAME</b>
1	CE F230	CIVIL ENGINEERING MATERIALS
2	CE F231	FLUID MECHANICS
3	CS F320	FOUNDATIONS OF DATA SCIENCE
4	CE G544	FRACTURE MECHANICS OF CONCRETE STRUCTURES
5	EEE G595	NANOELECTRONICS AND NANOPHOTONICS TECHNOLOGY
6	HSS F353	PHILOSOPHY OF AESTHETICS
7	CHE G554	COMPUTATIONAL FLUID DYNAMICS

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## BITS, PILANI - HYDERABAD CAMPUS

## ACADEMIC REGISTRATION AND COUNSELLING DIVISION (SECOND SEMESTER 2017 - 2018)

DISCIPLINE	2009	2010	2011	2012	2013	2014	2015	2016	2017	Sub Total
Research Scholars	3	3	10	13	48	16	33	66	90	282
A1 - B.E. (Hons.) Chemical					4	41	52	42	66	205
A2 - B.E. (Hons.) Civil						52	49	48	58	207
A3 - B.E. (Hons.) Electrical & Electronics					2	72	72	71	99	316
A4 - B.E. (Hons.) Mechanical					1	61	70	57	114	303
A5 - B. Pharm (Hons.)						9	21	17	29	76
A7 - B.E. (Hons.) Computer Science					1	146	147	125	220	639
A8 - B.E. (Hons.) Electronics & Instrumentation						28	35	38	52	153
AA - B.E. (Hons.) Electronics & Communication					2	83	82	80	112	359
AB - B.E. (Hons.) Manufacturing						32	31	24	34	121
B1 - M.Sc. (Hons.) Biology				2	30	23	21	22	21	119
B2 - M.Sc. (Hons.) Chemistry				2	26	28	25	22	40	143
B3 - M.Sc. (Hons.) Economics					41	53	36	38	81	249
B4 - M.Sc. (Hons.) Mathematics				1	44	40	35	33	71	224
B5 - M.Sc. (Hons.) Physics					27	34	29	30	60	180
<b>Sub-total (FD)</b>		<b>0</b>	<b>0</b>	<b>5</b>	<b>178</b>	<b>702</b>	<b>705</b>	<b>647</b>	<b>1057</b>	<b>3294</b>
H 101 - M.E. (Chemical Engineering)								6	8	14
H 103 - M.E. (Computer Science)								9	18	27
H 106 - M.E. (Mechanical)									13	13
H 123 - M.E. (Microelectronics)									12	12
H 124 - M.E. (Communication Engineering)			1					7	13	21
H 129 - M.E. (Biotechnology)								7	17	24
H 130 - M.E. (Transportation)									7	7
H 141 - M.E. (Design)								8	14	22
H 143 - M.E. (Structural)					1			8	11	20
H 146 - M.Pharm (Pharmaceutics)								11	18	29
H 148 - M.E. (Thermal)								9	9	18
H 313 - M.E. (Information Security)							6	10		16
<b>Sub-total (HD)</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>75</b>	<b>140</b>	<b>223</b>
<b>TOTAL</b>	<b>3</b>	<b>3</b>	<b>11</b>	<b>18</b>	<b>227</b>	<b>718</b>	<b>744</b>	<b>788</b>	<b>1287</b>	<b>3799</b>

**SUMMER TERM 2017 – 2018**

DISCIPLINE	2011	2012	2013		2014		2015		2016		2017	Sub Total
			On Campus	In PS I	On Campus	In PS I	On Campus	In PS I	On Campus	In PS I		
Research Scholars	1	2	5		1							9
A1 - BE (Hons.) Chemical			1				1	1		42		45
A2 - BE (Hons.) Civil					3	1	5			48		57
A3 - BE (Hons.) EEE			1		2		9			71	3	86
A4 - BE (Hons.) Mechanical							10		2	55	1	68
A5 - B. Pharm (Hons.)							2			16	1	19
A7 - BE (Hons.) Computer Science							3			123		126
A8 - BE (Hons.) Electronics & Instrumentation					1		4			38		43
AA - BE (Hons.) ECE					3		9			78	1	91
AB - BE (Hons.) Manufacturing							2	1		24		27
B1 - M.Sc. (Hons.) Biology					2		12			22		36
B2 - M.Sc. (Hons.) Chemistry					1		8			22		31
B3 - M.Sc. (Hons.) Economics					3		22			38	1	64
B4 - M.Sc. (Hons.) Mathematics					3		16	2		33		54
B5 - M.Sc. (Hons.) Physics					2		5			30	2	39
C6 - M.Sc. (Tech) Information Systems												0
H 313 - ME (Information Security)									10			10
<b>GRAND TOTAL</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>0</b>	<b>21</b>	<b>1</b>	<b>108</b>	<b>4</b>	<b>12</b>	<b>640</b>	<b>9</b>	<b>805</b>

## First Semester 2018 – 2019

DISCIPLINE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Sub Total
Research Scholars	1	1	10	12	39	14	33	63	86	43	302
A1 - B.E. (Hons.) Chemical					1	1	51	42	65	71	231
A2 - B.E. (Hons) Civil						7	48	48	57	64	224
A3 - B.E. (Hons.) Electrical & Electronics					2	2	71	71	99	105	350
A4 - B.E. (Hons.) Mechanical						2	69	57	113	149	390
A5 - B. Pharm (Hons.)							21	16	29	50	116
A7 - B.E. (Hons.) Computer Science						3	147	125	225	185	685
A8 - B.E. (Hons.) Electronics & Instrumentation						3	35	38	53	58	187
AA - B.E. (Hons.) Electronics & Communication					1	1	81	79	111	121	394
AB - B.E. (Hons.) Manufacturing						3	31	24	34		92
B1 - M.Sc. (Hons.) Biology					1	23	21	22	21	49	137
B2 - M.Sc. (Hons.) Chemistry					2	28	25	22	40	49	166
B3 - M.Sc. (Hons.) Economics				1	2	53	36	38	83	80	293
B4 - M.Sc. (Hons.) Mathematics				2	1	40	35	33	70	75	256
B5 - M.Sc. (Hons.) Physics					2	31	29	30	58	55	205
<b>Sub-total (FD)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>12</b>	<b>197</b>	<b>700</b>	<b>645</b>	<b>1058</b>	<b>1111</b>	<b>3726</b>
H 101 - M.E. (Chemical Engineering)									8	7	15
H 103 - M.E. (Computer Science)									18	32	50
H 106 - M.E. (Mechanical)									13	22	35
H 123 - M.E. (Microelectronics)									12	27	39
H 124 - M.E. (Communication Engineering)									12	21	33
H 129 - M.E. (Biotechnology)									17	20	37
H 130 - M.E. (Transportation)									7	13	20
H 141 - M.E. (Design)									14	24	38
H 143 - M.E. (Structural)					1				11	23	35
H 146 - M.Pharm (Pharmaceutics)									18	21	39
H 148 - M.E. (Thermal)									9	19	28
H 313 - M.E. (Information Security)								10			10
<b>Sub-total (HD)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>139</b>	<b>229</b>	<b>379</b>
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>15</b>	<b>52</b>	<b>211</b>	<b>733</b>	<b>718</b>	<b>1283</b>	<b>1383</b>	<b>4407</b>

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**LIST OF ORGANIZATIONS WHICH CONDUCTED CAMPUS INTERVIEWS JAN-DEC 2018**

S. No	Name of Company	Total Offers Made	CTC(INR)	No of Interviews
1	Accolite	0	10,00,000	31
2	Adobe	2	20,35,000	9
3	Aequis	0	5,00,000	14
4	Aizant	2	3,75,000	6
5	Alacrity E-Commerce Business	1	500000	9
6	Aliyance	0	4,50,000	14
7	Amazon	20	28,50,000	186
8	American Express	2	20,24,736	186
9	Anarock	0	25,00,000	17
10	ARM Embedded Technologies	6	8,50,000	201
11	Aurobindo Pharma	0	3,75,000	17
12	Autorabit Software	1	5,00,000	16
13	Avaya	1	14,77,000	53
14	Baldor Technologies	1	5,00,000	1
15	Bank of America	5	6,50,000	31
16	Beehyv	1	6,00,000	31
17	Bharat Seats	3	5,50,000	16
18	Bhashyam Educational Group	1	4,80,000	1
19	Birla Century	2	6,00,000	23
20	Bizacuity	4	5,10,000	19
21	Blue Jeans Network	1	13,42,000	1
22	Bombardier	3	8,25,000	8
23	BSCPL	2	6,23,676	8
24	Byju's	0	8,00,000	24
25	CA Technologies	7	12,50,000	127
26	Capgemini	30	6,00,000	103
27	CEG Limited	1	4,25,000	8
28	CGI	3	7,11,984	48
29	Cisco	9	14,37,333	77
30	Codenation	0	25,00,000	186
31	Cognizant	3	10,31,830	37
32	Commscope	2	4,23,000	14
33	Consul Neowatt	0	7,00,000	9
34	Core Compete	7	10,00,000	53
35	Credit Suisse	18	11,00,000	109
36	Crowdchat	3	11,00,000	22
37	Cummins	1	6,00,000	16

S. No	Name of Company	Total Offers Made	CTC(INR)	No of Interviews
38	Cyient	7	5,00,000	8
39	Dell EMC	4	10,75,000	115
40	Deloitte	4	6,20,000	46
41	DEP India	1	3,50,000	8
42	Deshpande Foundation	3	7,50,000	28
43	Deutsche Bank	10	11,92,240	41
44	Directi	1	26,55,000	85
45	DMS	1	4,50,000	7
46	Dr Reddy's Lab	3	4,56,000	11
47	Edupristine	1	8,50,000	42
48	Embibe	3	4,00,000	12
49	Epsilon	2	9,54,332	38
50	Equitas	1	4,00,000	8
51	Ericsson	2	9,50,000	65
52	EXL Services	4	6,00,000	17
53	FIITJEE	9	10,000,00	26
54	Fiorano	3	9,00,000	19
55	Flipkart	14	23,84,200	103
56	FMC Technologies	3	5,65,000	25
57	Fractal Analytics	2	6,00,000	26
58	Franklin Templeton	1	8,70,650	34
59	Futures First	3	12,31,792	137
60	GAP	5	8,60,430	49
61	General Electric	1	8,75,000	16
62	Genpact	1	7,50,000	74
63	GGK Technologies	15	7,00,000	83
64	Goldman Sachs	1	31,50,000	26
65	Goodera	3	5,50,000	45
66	Grey Orange	2	14,00,000	49
67	GSK R&D	2	7,25,379	11
68	Half Tick Info Services	0	6,00,000	57
69	Histogenetics	2	5,00,000	18
70	Hortonworks	1	21,90,795	1
71	iB-Hubs	2	12,000,00	1
72	IDeaS – SAS	1	9,50,000	27
73	IFB	1	4,50,000	16
74	IMI Mobile	1	6,00,000	47
75	Indegene	1	3,24,000	6
76	Indian PAC	0	6,00,000	27
77	Infinera	1	11,96,000	204
78	Infor	8	7,00,000	37
79	Ingersoll Rand	1	6,00,000	5
80	Inmobi	1	7,80,898	107
81	Innominds	2	6,00,000	16

S. No	Name of Company	Total Offers Made	CTC(INR)	No of Interviews
82	Intas Pharma	3	5,00,000	11
83	Intel	5	9,64,610	54
84	iRunway	4	8,00,000	67
85	Indus Valley Partners	1	11,83,281	48
86	JDA Software	4	6,000,00	234
87	Jivox	2	15,00,000	97
88	Johnson Controls	1	8,40,526	43
89	JP Morgan Chase	15	11,25,000	217
90	JP Morgan Services	4	12,000,00	226
91	Just Dial	10	10,000,00	84
92	L&T Construction	19	5,11,000	132
93	Latent View	3	5,00,000	14
94	Lowe's	1	7,70,000	27
95	Loyalty Juggernaut	2	8,00,000	34
96	Market Front	1	5,00,000	26
97	Markets & Markets	0	5,00,000	16
98	Math Company	2	4,50,000	11
99	Mathworks	11	9,00,000	68
100	MediaTek	2	11,46,123	8
101	Mentor Graphics	1	14,20,059	14
102	Merilytics	11	7,00,000	47
103	Microsoft	13	22,38,750	106
104	Morgan Stanley Capital Investment	3	14,00,000	187
105	Morgan Stanley	2	16,17,000	68
106	Morningstar	1	9,10,000	134
107	Musigma	6	8,30,000	213
108	My POS Technology	1	9,00,000	1
109	My Smart Price	2	13,70,000	11
110	National Council of Applied Economic Research	1	3,60,000	1
111	Nestaway	3	20,000,00	116
112	NetApp	1	18,72,709	58
113	Next Education	11	7,000,00	97
114	Next Gen PMS	2	14,000,00	106
115	Nomura	6	13,000,00	14
116	Novartis	1	6,50,000	18
117	Nucleus Software	3	10,16,391	27
118	Nutanix	8	39,48,600	157
119	Nvidia Graphics	14	16,24,000	14
120	Oasis Centre of Reproductive Medicine	1	3,00,000	1
121	Opera Solutions	1	12,00,000	54
122	Optum	9	11,98,000	68
123	Oracle	23	22,50,000	238
124	Orbees	3	6,00,000	34
125	OYO Rooms	7	15,00,000	68



S. No	Name of Company	Total Offers Made	CTC(INR)	No of Interviews
126	Parexel	3	9,00,000	27
127	Pay U	3	15,00,000	157
128	PayPal	16	25,10,000	103
129	Perceptive Analytics	0	6,00,000	27
130	Petasense	1	13,02,400	1
131	Pfizer	4	4,00,000	6
132	Phenom People	3	8,00,000	38
133	Play simple	0	20,000,00	29
134	Pokarna	0	6,00,000	12
135	Postman	3	19,00,000	68
136	Propeluss	2	6,00,000	12
137	PWC	2	7,50,000	109
138	Qualcomm	18	15,61,065	116
139	Qubole	1	18,70,000	127
140	Rao IIT	4	7,00,000	54
141	Reflexis System	6	6,00,000	37
142	Reliance Jio	5	7,00,000	79
143	Reliance Polymer	4	5,50,000	21
144	Report Garden	4	6,00,000	118
145	RIL	8	5,500,00	23
146	Sai Life Sciences	3	4,50,000	19
147	Saisanj	1	6,00,000	25
148	Samsung R&D	3	16,00,000	228
149	Samsung Semiconductor	1	23,50,000	228
150	SanDisk	0	16,48,600	76
151	Searce	1	7,00,000	37
152	Service Now	8	16,83,964	106
153	Sheroos	0	10,00,000	10
154	Skoda	1	5,50,000	16
155	Sling Media	3	12,10,000	137
156	Soroco(Catamaran Ventures)	0	16,00,000	11
157	Sokrati	1	4,58,957	66
158	Supply Basics – E-commerce	1	8,50,000	1
159	Swiggy	7	18,00,000	91
160	Symantec	1	15,00,000	1
161	Synergiz Global	1	3,60,000	1
162	Syngene	1	3,70,000	8
163	Synopsys	5	13,36,446	24
164	Tap Chief	1	5,40,000	1
165	TASL	3	3,93,000	36
166	Tata Auto Component	2	3,81,000	47
167	Tata Trust	11	6,60,000	56
168	TCS	0	7,50,000	16
169	Techolution	1	7,00,000	43

S. No	Name of Company	Total Offers Made	CTC(INR)	No of Interviews
170	Telstra	1	12,00,000	114
171	Teradata	0	10,00,000	11
172	Tesco	1	17,42,394	48
173	Tesco Analytics	3	9,00,000	47
174	Thornton Tomasetti	1	5,75,000	8
175	Toshiba	2	12,18,386	67
176	Tresvista	1	5,08,064	1
177	UBS	3	12,00,000	18
178	United Online	2	7,00,000	24
179	Upgrad	10	12,00,000	106
180	UST Global	6	9,00,000	6
181	Value Labs	1	12,00,000	37
182	Veritas	3	12,25,000	47
183	Vitrana	1	4,30,000	4
184	Walmart Labs	9	18,57,000	206
185	Wipro	2	6,00,000	22
186	Xilinx	4	13,36,500	68
187	Zenoti	8	17,92,114	118
188	Zinnov	2	7,51,465	2
189	ZS Associates	16	8,08,000	58
190	Zuti	3	7,00,000	27
Total		<b>722</b>		<b>10310</b>

### Discipline Wise Break Up:-

Code	Department / Program	AY 2017-18			
		Registered	Placed	Unplaced	% Placed
A1	B.E CHEMICAL	43	36	7	83.72
A2	B.E CIVIL	41	35	6	85.37
A3	B.E EEE	88	84	4	95.45
A4	B.E MECHANICAL	65	62	3	95.38
A5	B.PHARMACY	5	4	1	80
A7	B.E COMPUTER SCIENCE	170	168	2	98.82
A8	B.E ELECTRONICS AND INSTRUMENTATION	36	33	3	91.67
AA	B.E ECE	96	89	7	92.71
AB	B.E MANUFACTURING	32	31	1	96.88
B4	M.Sc. MATHEMATICS	1	1	0	100
B5	M.SC. PHYSICS	2	2	0	100
H101	M.E CHEMICAL ENGINEERING	6	6	0	100
H103	M.E. COMPUTER SCIENCE	9	8	1	88.89
H124	M.E COMMUNICATION ENGINEERING	8	8	0	100
H129	M.E. BIO TECHNOLOGY	6	4	2	66.67
H141	M.E. DESIGN	8	7	1	87.5
H143	M.E. STRUCTURAL	8	5	3	62.5
H146	M. Pharm with Spl. in Pharmaceutics	11	10	1	90.91
H148	M.E. THERMAL	8	8	0	100
H313	M.E. INFORMATION SECURITY	7	7	0	100
<b>Total</b>		<b>650</b>	<b>608</b>	<b>42</b>	<b>93.54</b>

'Annexure B3-6'

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**RESEARCH PROJECT GRANTS**

Sl. No	Title of the project	Principal Investigator	Department	Sanctioned amount of the project (Rs)	Funding Agency	Duration	Sanctioned date
1	Combined genetic and epigenetic analysis of oral cancer for prognosis of patients	Prof. K Naga Mohan (PI) Prof. Pranav Kumar Narayan	Biological Sciences	13882400	DBT	3years	29.01.2018
2	Catalytic conversion biomass to fuels and chemicals	Dr. Ganji Parameshwaram-Under Dr. Sounak Roy	Chemistry	1908000	DST-N-PDF	2years	05.01.2018
3	DST-Ramanujan Fellowship	Dr. Gireesha Thipperudrappa Mohannath	Biological Sciences	3800000	DST-Ramanujan Fellowship	5years	06.02.2018
4	Investigations of the effects of Photon Up-Conversion materials on the Electrical performance of Ferroelectric /Semiconductor Heterojunction Photovoltaic Devices	Dr. Souvik Kundu (PI) Prof. Kannan Ramaswamy (Co-PI) and Dr. Harihara Venkatraman (Co-PI)	EEE	3563997	DST	3years	19.03.2018
5	Reactive Transport Modeling and Simulation of Carbon Dioxide Sequestration in Deccan Volcanic Province	Dr. Vikranth Kumar Surasani (PI) Prof. Balaji Krishna Murthy (Co-PI)	Chemical Engineering	2173600	DST	3years	22.03.2018
6	Develop of novel anti-leishmanial analogues loaded with novel nano-formulations	(Co-PI)Prof. K V G Chandra Sekhar Dr. Murugesan (PI)	Chemistry	1300000	DBT	2years	26.03.2018
7	Characterizing the sets of periodic points of automorphisms on a solenoid	Dr. Sharan Gopal	Mathematics	1998480	DST	3 years	12.03.2018
8	Sustainable technology solutions for energy efficiency in the jaggery industry	Dr. M Srinivas	Mechanical Engineering	GBP48380	Royal Academy of Engineering	2years	02.04.2018
9	Economic construction practice using bacterial inclusions in concrete in improve its durability	Dr. Arkamitra Kar (PI) Prof. Jayati Ray Dutta (Co-PI)	Civil Engineering	22000000	CSIR	3years	02.05.2018
10	Harnessing mucosal immunity towards improved resistance against tuberculosis	Dr. Ruchi Jain Dey	Biological Sciences	3250000	DBT Ramalingaswamy Fellowship	5 years	28.05.2018
11	Pre-feasibility study of Battery Electric buses in India	Dr. Bandhan Bandhu Majumdar	Civil Engineering	1236000	Global Challenge Research Fund, UK	May - Oct 2018(6months)	01.05.2018

Sl. No	Title of the project	Principal Investigator	Department	Sanctioned amount of the project (Rs)	Funding Agency	Duration	Sanctioned date
12	Underwater Characterization of solar cells and their optimization	Dr. Sanket Goel (PI) Dr. Sudha Radhika (Co-PI)	EEE	985000	DRDO-cars	1year	01.06.2018
13	Identification of UGT-isoform specific substrates and inhibitors and their contribution in drug metabolism and systemic levels of bile secretions.	Dr. Punna Rao Ravi	Pharmacy	1175000	Consultancy Project (Acubiosys Pvt. Ltd.,	1year	28.06.2018
14	Fundamental physics in strong gravitational field of neutron stars	Dr. Sarmistha Banik (PI) Dr. Asrarul Haque (Co-PI)	Physics	2439650	DAE-BRNS	3 years	05.07.2018
15	Engineered Nanomaterials: New Biomimetic and catalytic approaches for biomedical applications	Dr. Amit Vernekar	Chemistry	3500000	DST INSPIRE	5years	31.07.2018
16	Development and characterization of emulsion based drug product for the management of emetogenic cancer chemotherapy	Dr. Akash Chaurasiya	Pharmacy	395300	Slay back Pharma	1year	24.07.2018
17	Cracking of hydrocarbon fuel for a possible heat sink applications	Dr. Srikanta Dinda	Chemical Engineering	4065000	DRDO	2years	01.08.2018
18	Conditional Pathogenesis: Understanding why potentially beneficial rhizobacteria turn pathogenic under certain environmental conditions	Dr. Sridev Mohapatra (PI) Prof. Naga Mohan K (CO-PI)	Biological Sciences	4516800	DBT	3years	31.08.2018
19	Digital 3D printed electronic technology for space electronic packaging applications	Prof. Sanket Goel	EEE	2636000	ISRO	3years	02.08.2018
20	Resistance to the Western Ghats Conservation and Undercurrents: A study of the people's protest and the role of the local bodies in Iduuki, Kerela	Dr. Lavanya Suresh	Humnities and Social Sciences	315000	Center for Development Studies (CDS)	16 months	25.09.2018
21	Incubating a discourse for Cooperation, Contentment, and Care: to Enable Justice for All	Dr. Lavanya Suresh	Humnities and Social Sciences	295000	NALSAR	8 months	10.09.2018
22	Novel approach to develop computational pipeline to predict functions of cysteines in Proteins of Unknown Function (PUFs) and Domains of Unknown Function (DUFs), based on	Dr. Debashree Bandyopadhyay	Biological Sciences	1942800	DST	3years	26.09.2018

Sl. No	Title of the project	Principal Investigator	Department	Sanctioned amount of the project (Rs)	Funding Agency	Duration	Sanctioned date
	protein microenvironments						
23	Ultracold chemistry of molecular ions	Dr. SubhasGoshal	Chemistry	2400959	DST	3years	01.10.2018
24	Determination of wound healing (pro-angiogenic properties of peptide conjugate)	Dr. Onkar Kulkarne	Pharmacy	800000	DRDO	1year	03.10.2018
25	Network Coding with Pascal coefficients for unreliable networks	Dr. Paresh Saxena	CSIS	555607	AnsuR Technologies, Oslo, Norway	4months	15.10.2018
26	Preparation and Characterization of electrode materials for Lithium ion Batteries"	Dr. Sounak Roy	Chemistry	700000	HBL	1year	01.10.2018
27	Understanding the role of long non coding RNA's (Inc RNA's) in transforming growth factor - beta (TGF-B) pathway in Glioblastoma.	Dr. Vivek Sharma	Biological Sciences	4726480	DST	3years	16.11.2018
28	Identification of the regulatory mechanisms executed by bile acids during inflammation induced colon cancer	Dr. Trinath Jamma	Biological Sciences	4382650	DST	3years	16.11.2018
29	AIE studies of newly designed anthracene-based co-ordination compounds and their applications	Dr. Atasi Mukherjee - WOS Under Prof. Manab Chakravarty	Chemistry	3155000	DST-WOS-A	3years	16.11.2018
30	Wind Resistant Design for proposed LIGO India Observatory	Dr. Sabareesh G R (PI) Dr. Rahul Nigam (Co-PI) Dr. K Ramachandra Murthi (Co-PI)	Mechanical Engineering	4481800	LIGO India	3years	28.12.2018
31	Women's Employment, Interstate Variations and Time-use: A Comparative Study of Bihar and Andhra Pradesh	Dr. Sunny Jose and Dr. Bheemeshwar Reddy A (Joint PI-s)	Humanities and Social Sciences and Economics & Finance	1188000	Azim Premji University	2years	17.12.2018
32	Determinants of Women Empowerment and Trickle-Down Effect of the Same on Children's Overall Educational and Health Development: Challenges, Effects and Intervention through Training	Dr. Sudatta Banerjee (PI) Dr. Swati Alok (Co-PI)	Economics & Finance	400000	ICSSR	1years	10.1.2018

**APPROVED PROJECTS DURING JANUARY - DECEMBER 2018**

Details of the Sponsored Projects

**SANCTIONED PROJECTS DURING JANUARY - DECEMBER 2018**

Details of the Sponsored Projects

**Prof. K Naga Mohan**

1. Title of the Project: Combined genetic and epigenetic analysis of oral cancer for prognosis of patients
2. Funding Agency: DBT
3. Total Sanctioned amount: 13882400/-
4. Duration: 3years
5. Status: ongoing

**Dr. Ganji Parameshwaram-Under Dr. Sounak Roy**

1. Title of the Project: Catalytic conversion biomass to fuels and chemicals
2. Funding Agency: DST-NPDF
3. Total Sanctioned amount:1908000/-
4. Duration:2years
5. Status: ongoing

**Dr. Gireesha Thipperudrappa Mohannath**

1. Title of the Project: Ramanujan Fellowship
2. Funding Agency: DST-Ramanujan Fellowship
3. Total Sanctioned amount: 3800000/-
4. Duration: 5years
5. Status: ongoing

**Dr. Souvik Kundu**

1. Title of the Project: Investigations of the effects of photon up-conversion materials on the electrical performance of ferroelectric/semiconductor heterojunction photovoltaic devices
2. Funding Agency: DST
3. Total Sanctioned amount: 35,63,997/-
4. Duration:3years
5. Status: ongoing
6. Area of research: Photovoltaics
7. Key words (3-4 max): Solar Cells, Ferroelectric Materials, and Photon up conversion.
8. Objectives: Develop a new generation solar cells by an alternative (unconventional) approach.
9. Deliverables: I. Doping of ferroelectric materials and its thin film integration  
II. Embedding of semiconductor heterojunction  
III. Band-gap engineering of ferroelectrics  
IV. Fabrication and characterization of solar cells  
V. Understanding the working principle of this heterojunction solar cells.

**Dr. Vikranth Kumar Surasani**

1. Title of the Project: Reactive Transport Modeling and Simulation of CO<sub>2</sub> Sequestration in Deccan Volcanic Province.
2. Funding Agency: DST
3. Total Sanctioned amount: 2173600/-
4. Duration: 3 years
5. Status: ongoing
6. Area of research: Engineering Sciences: Chemical and Environmental Engineering
7. Key words (3-4 max): CO<sub>2</sub> Sequestration; Modeling and Simulation, Reactive Transport; Mineral Trapping
8. Objectives:
  1. Reactive Transport Modeling of Subsurface Flow and Transport.
  2. Development of Geo-Chemical Model for Deccan Volcanic Province.
  3. Development of Computational Domain that include both heterogeneity of Geochemistry and Petro physical properties of Deccan Volcanic Province
  4. Implementation of Reactive Transport Model of CO<sub>2</sub> Sequestration into PFLOTRAN, and visualization of simulation data.
  5. Evaluation of Deccan Volcanic Province integrity for CO<sub>2</sub> Sequestration esp. for mineral trapping mechanism.
  6. Feasibility of Generic methodology for geochemical and biogeochemical application in subsurface such as contaminant transport & Remediation.
9. Deliverables:
 

In Indian scenario, Reactive Transport Modeling is not explored in the field of Earth Science Systems. This project is interdisciplinary, upon successful execution, the methodology can be applied to many generic topics which is classified as "Biogeochemical Interactions during Flow in Subsurface Aquifers/Reservoirs". On successful implementation, the simulation tool can estimate the fate of chemical and biochemical species in the natural subsurface systems. Some of the field applications after implementation of simulation tool can be

  - Estimation of organic/inorganic contaminant transport in any sensitive aquifers/reservoirs,
  - Mineralization of CO<sub>2</sub> during Geological Sequestration,
  - Evolution of souring phenomena in petroleum reservoir flow and its remediation,
  - Biocementation and bioclogging in subsurface flows,
  - Estimation of hydrodynamic changes in aquifers/reservoirs over wide range of time scales,
  - Estimation of rock-to-fluid heat transfer, and mineralogical changes of subsurface during flows in hydrothermal power generation,

**Prof. K V G Chandra Sekhar**

1. Title of the Project: Develop of novel anti-leishmanial analogues loaded with novel nano-formulations
2. Funding Agency: DBT
3. Total Sanctioned amount: 1300000/-
4. Duration: 2 years
5. Status: ongoing

**Dr. Sharan Gopal**

1. Title of the Project: Characterizing the sets of periodic points of automorphisms on a solenoid
2. Funding Agency: DST
3. Total Sanctioned amount: 1998480/-
4. Duration: 3 Years
5. Status: ongoing
6. Area of research: Topological Dynamics
7. Key words (3-4 max): Topological dynamics, periodic points, solenoid, automorphism
8. Objectives:
  1. To get acquaintance with certain concepts of Algebraic number theory.
  2. To give a characterization of solenoids in terms of number theoretic concepts.
  3. To obtain a characterization of sets of periodic points of the family of automorphisms on a solenoid.

## 9. Deliverables:

1. A characterization of solenoids will be obtained in terms of number theoretic concepts.
2. The sets of periodic points of solenoidal automorphisms will be characterized.

**Dr. M Srinivas**

1. Title of the Project: Sustainable technological solutions for energy efficiency in jaggery industry (STEEJ)

2. Funding Agency: Royal academy of engineering, UK

3. Total Sanctioned amount: GBP48380

4. Duration: 2years

5. Status: ongoing

6. Area of research: Energy efficiency in process industries

7. Key words (3-4 max): Energy efficiency, jaggery industry, solar energy

## 8. Objectives:

1. Design & optimization of an energy efficient alternate jaggery production process line that uses sustainable hybrid energy technologies.
2. Prototype development and field testing of new process line.
3. Develop and implement training modules to impart necessary skill sets to use this new process line.

## 9. Deliverables:

1. Design and optimization of various systems/subsystems of new process line that contribute to renewable energy usage to improve energy efficiency in jaggery industry.
2. Validation of these designs through investigations on prototypes.
3. Development software interfaces that could be used to suggest new process lines at any location.
4. Design of Training modules and successful usage of the same for training the personnel

**Dr. Arkamitra Kar**

1. Title of the Project: Economic construction practice using bacterial inclusions in concrete in improve its durability

2. Funding Agency: CSIR

3. Total Sanctioned amount: 2200000/-

4. Duration: 3years

5. Status: ongoing

**Dr. Ruchi Jain Dey**

1. Title of the Project: Harnessing mucosal immunity towards improved resistance against tuberculosis.

2. Funding Agency: DBT Ramalingaswamy Fellowship

3. Total Sanctioned amount: 3250000/-

4. Duration: 5years

5. Status: ongoing

6. Area of research: Infectious disease, Tuberculosis

7. Key words (3-4 max): Tuberculosis, Mucosal Immunology, Infectious Disease

## 8. Objectives:

- 1: To study the role of MAIT cells response in M. tuberculosis infection: Susceptibility or resistance pattern of MAIT<sup>lo</sup> and MAIT<sup>hi</sup> mouse to M. tuberculosis infection;
- 2: To study the role of riboflavin biosynthetic pathway in bacterial virulence and pathogenicity of M.tuberculosis and its influence on MAIT cell responses.;
- 3: To develop methods to enhance mucosal immunity to TB and to improve responsiveness to antibiotics.

## 9. Deliverables:

1. Improved understanding about the Mucosal Immune system.
2. To develop a systematic framework to test prophylactic and therapeutic potential of pro-biotics strains, pre-biotics and other host directed therapies in pre-clinical animal model of tuberculosis.
3. Design probiotics based host directed therapies to reduce the toxicity of Tuberculosis drug therapy, improve innate immunity, reduce the disease progression



**Dr. Bandhan Bandhu Majumdar**

1. Title of the Project: Pre-feasibility study of Battery Electric buses in India
2. Funding Agency: Global Challenge Research Fund, UK
3. Total Sanctioned amount: 1283000/-
4. Duration: 6months
5. Status: ongoing
6. Area of research : Transportation Engineering
7. Key words (3-4 max): Battery Electric bus, Feasibility, Sustainable Transportation, Multi-Attribute Decision Making
8. Objectives:
  - a) Development of a methodological framework for the assessment of the operational feasibility of battery-electric buses in typical Indian routes
  - b) Identification of the areas for capacity building in terms of skilled manpower and required infrastructure required for running battery-electric buses
9. Deliverables:
  1. State of the art report on battery bus technology effort in India.
  2. Draft Report summarizing the results and findings

**Dr. Sanket Goel**

1. Title of the Project: Underwater Characterization of solar cells and their optimization
2. Funding Agency: DRDO - Cars
3. Total Sanctioned amount: 985000/-
4. Duration: 1 year
5. Status: ongoing

**Dr. Punna Rao Ravi**

1. Title of the Project: Identification of UGT-isoform specific substrates and inhibitors and their contribution in drug metabolism and systemic levels of bile secretions.
2. Funding Agency: Acubiosys Pvt. Ltd.,
3. Total Sanctioned amount: 1175000/-
4. Duration: 1 year
5. Status: ongoing

**Dr. Sarmistha Banik**

1. Title of the Project: Fundamental Physics in Strong Gravitational field of Neutron Stars
2. Funding Agency: DAE-BRNS
3. Total Sanctioned amount: 24,39,650/-
4. Duration: 3years
5. Status: ongoing
6. Area of research: Theoretical Nuclear Astrophysics.
7. Key words (3-4 max): Neutron Stars, Gravitational waves
8. Objectives:

The main objective of this project is to carry out advanced research in neutron star physics.

  - a. Equations of state (EoS) of dense matter involving hyperons, kaon condensates and quarks will be constructed within relativistic field theoretical models.
  - b. Observable properties of rotating neutron stars will be computed using those sets of EoS.
  - c. In particular, the effects of highly dense matter equation of state and compositions on the observable properties of neutron stars, such as mass, radius and moment of inertia will be
9. Deliverables:
  - i) Analytical and numerical calculations of observable properties of NS.
  - ii. Publications of research papers in international peer-reviewed journals,
  - iii. Presentation of research results in conference/workshop.

**Dr. Amit Ashok Vernekar**

1. Title of the Project: Engineered Nanomaterials: New Biomimetic and catalytic approaches for biomedical applications
2. Funding Agency: DST Inspire Faculty
3. Total Sanctioned amount: 3500000/-
4. Duration: 5 years
5. Status: ongoing

**Dr. Akash Chaurasiya**

1. Title of the Project: Development and characterization of emulsion based drug product for the management of emetogenic cancer chemotherapy
2. Funding Agency: Slay back Pharma
3. Total Sanctioned amount: 395300/-
4. Duration: 1 year
5. Status: ongoing

**Dr. Srikanta Dinda**

1. Title of the Project: Cracking of Hydrocarbon Fuel for a Possible Heat Sink Application
2. Funding Agency: DRDL (DRDO)
3. Total Sanctioned amount: 4065000/-
4. Duration: 2 years
5. Status: ongoing
6. Area of research: Hydrocarbon cracking
7. Key words (3-4 max): cracking, endothermic fuel, kinetics, coke,
8. Objectives: to develop endothermic fuel
9. Deliverables: Heat sink ability of hydrocarbon fuels and its improvement possibilities

**Dr. Sridev Mohapatra**

1. Title of the Project: Conditional Pathogenesis: Understanding why potentially beneficial rhizobacteria turn pathogenic under certain environmental conditions
2. Funding Agency: DBT
3. Total Sanctioned amount: 4516800/-
4. Duration: 3 years
5. Status: ongoing

**Dr. Sanket Goel**

1. Title of the Project: Digital 3D printed electronic technology for space electronic packaging applications
2. Funding Agency: ISRO
3. Total Sanctioned amount: 2636000/-
4. Duration: 3 years
5. Status: ongoing

**Dr. Lavanya Suresh**

1. Title of the Project: Resistance to the Western Ghats Conservation and Undercurrents: A study of the people's protest and the role of the local bodies in Iduuki, Kerala
2. Funding Agency: Center for Development Studies (CDS)
3. Total Sanctioned amount: 315000/-
4. Duration: 16 months

5. Status: ongoing
6. Area of research: Political Ecology
7. Key words (3-4 max): Discourse, Conservation, Environmental Politics
8. Objectives: To understand the role of the local government institutions in conservation, in the context of the discourse around the protests against the Gadgil and Kasturirangan committee reports-To understand the underlying social, political and economic factors that drive local resistance to conservation.
9. Deliverables: -A long essay by M. Suchitra  
-A few reports and interviews in English and Malayalam published in popular media  
-A Core essay by Dr. Lavanya Suresh and M. Suchitra  
-A photo essay

**Dr. Lavanya Suresh**

1. Title of the Project: Incubating a discourse for Cooperation, Contentment, and Care: to Enable Justice for All
2. Funding Agency: NALSAR
3. Total Sanctioned amount:295000/-
4. Duration:8months
5. Status: ongoing
6. Area of research: Political Ecology
7. Key words (3-4 max): Conservation, Justice, Ecology
8. Objectives: The questions that we will seek answers to are: (1) What traditional rules or alternative means of conservation continue to exist to manage ecological systems? (2) Explore if these traditional rules are changing? (3) If they are changing, question if it is a product of increasingly impoverished producers over extracting to offset losses and tighter margins or are they related to cultural transformations in perceptions of ecosystems, or both? (4) What differences do institutions of governance, or property rights make to the ways in which ecological systems are managed? Do they really matter ecologically?
9. Deliverables: A discussion paper on alternative ways of understanding conservation practice to enable justice for all

**Dr. Debashree Bandyopadhyay**

1. Title of the Project: Novel approach to develop computational pipeline to predict functions of cysteines in Proteins of Unknown Function (PUFs) and Domains of known Function (DUFs), based on protein microenvironments
2. Funding Agency: DST
3. Total Sanctioned amount: 1942800/-
4. Duration: 3years
5. Status: ongoing

**Dr. Subhas Goshal**

1. Title of the Project: Ultracold chemistry of molecular ions
2. Funding Agency: DST
3. Total Sanctioned amount: 2400959/-
4. Duration: 3years
5. Status: ongoing

**Dr. Onkar Kulkarne**

1. Title of the Project: Determination of wound healing (pro-angiogenic properties of peptide conjugate)
2. Funding Agency: DRDO
3. Total Sanctioned amount: 800000/-
4. Duration: 1 year
5. Status: ongoing

**Dr. Paresh Saxena**

1. Title of the Project: Network Coding with Pascal coefficients for unreliable networks
2. Funding Agency: AnsuR Technologies, Oslo, Norway
3. Total Sanctioned amount: Rs. 5,55,607
4. Duration: 4months
5. Status: ongoing
6. Area of research: Network Coding, Satellite Communications, Multipath Networking
7. Key words (3-4 max): Network Coding, MPTCP, SatCom
8. Objectives: The objective of this industrial consultancy project is to work on the network coding test-bed for multipath networking using emulation of SatCom and other networks. Dr. Paresh Saxena will provide his consultancy to AnsuR technologies on the network coding protocol, test-bed functioning and contribute to the technical reports. This project is a short 4-months collaboration between the two parties and it will also be the basis for long-term future collaboration between them. This will result into development of new technologies and contribution to both research papers and industrial products.
9. Deliverables: Final Report (to be written after the completion of the project)

**Dr. Sounak Roy**

1. Title of the Project: Preparation and Characterization of electrode materials for Lithium ion Batteries
2. Funding Agency: HBL
3. Total Sanctioned amount: 700000/-
4. Duration: 1year
5. Status: ongoing

**Dr. Vivek Sharma**

1. Title of the Project: Understanding the role of long non coding RNA's (lnc RNA's) in transforming growth factor - beta (TGF-B) pathway in Glioblastoma
2. Funding Agency: DST
3. Total Sanctioned amount: 4726480/-
4. Duration: 3years
5. Status: ongoing

**Dr. Trinath Jamma**

1. Title of the Project: Identification of the regulatory mechanisms executed by bile acids during inflammation induced colon cancer
2. Funding Agency: DST
3. Total Sanctioned amount: 4382650/-
4. Duration: 3years
5. Status: ongoing

**Dr. Atasi Mukherjee – DST WOS-A Under Prof. Manab Chakravarty**

1. Title of the Project: AIE studies of newly designed anthracene-based coordination compounds and their applications
2. Funding Agency: DST (WOS-A)
3. Total Sanctioned amount: 3155000/-
4. Duration: 3years
5. Status: ongoing

**Dr. Sabareesh G R:**

1. Title of the Project: Studies on Wind Resistant Design for proposed LIGO India Observatory
2. Funding Agency: LIGO-India

3. Total Sanctioned amount: 4481800/-
4. Duration: 3years
5. Status: ongoing

**Dr. Sunny Jose and Dr. Bheemeshwar Reddy A (Joint PI-s)**

1. Title of the Project: Women's Employment, Interstate Variations and Time-use: A Comparative Study of Bihar and Andhra Pradesh
2. Funding Agency: Azim Premji
3. Total Sanctioned amount: 1188000/-
4. Duration: 2years
5. Status: ongoing

**Dr. Sudatta Banerjee (PI) and Dr. Swati Alok (Co-PI)**

1. Title of the Project: Determinants of Women Empowerment and Trickle-down Effect of the same on Children's overall Educational and Health Development: Challenges, Effects and Intervention through Training
2. Funding Agency: ICSSR
3. Total Sanctioned amount: Rs. 4,00,000/-
4. Duration: 1 year
5. Status: ongoing
6. Area of research: Development Economics and Management
7. Key words (3-4 max): Women empowerment, Education, Health, Children
8. Objectives:
  1. To identify the indicators/antecedents of women empowerment
  2. To explore how the indicators are affecting women empowerment.
  3. To understand how socio-economic factors influence the main factors which determine empowerment
  4. To find the present status of health and education of children between the age group 8-16 years
  5. To correlate children's health and educational outcome with women empowerment.
  6. To design a framework through which we will be conducting training workshops to create awareness about the factors leading to women empowerment.
9. Deliverables:
  1. Determinants of women empowerment
  2. How women empowerment affects children's education and health.
  3. Training programme to empower women.

'Annexure B3-7'

(8 Pages)

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## List of Equipment procured in the year 2018

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
1	Precision source measure unit Keysight	01 nos	1,318,836.00	Dr Souvik Kundu	BRNS DAE project
2	CNC Simulation Software	01 nos	147,500.00	Central Workshop	Institute
3	Heidolph Rotary Evaporatur	01 nos	(EURO 5400) INR 414206	Dr Balam Ghosh	DST SERB HDAC 3 Project
4	Averaging Extensometer Frame	01 nos	(USD 7185) INR 465105	Mechanical Engg	Institute
5	100kV AC/100kVDC Test Set 150mm Sphere Gap Assembly (Motorised)	01 nos 01 nos	577,952.20	EEE	Institute
6	Epson Projector EB U05 LCD Projector	09 nos	498,586.00	ESD	Institute
7	Smoke Point Analyser with Accessories	01 nos	(USD 3799,) INR 246582	Chemical Engg	Institute
8	ESCO Microprocessor Controlled Airstream	01 no	(USD 14500,) INR 937933	Dr Vamsi Krishna Venuganti	DST 2017 SERB-EMR Project
9	UV-Visible Double Beam Spectrophotometer TS-2080	01 set	349,078.00	Chemistry	Institute
10	SSOT-AK0001-0EU Equipment	01 nos	(USD 4218,) INR 280416 (280185)	Prof N Rajesh	DST SERB
11	Standard Chamber Furnace CWF 1305-230SN	01 nos	412,611.41	Prof Amit Kumar Gupta	DRDR Project
12	3D printer of Raise 3D N2 Plus Dual +5 Spools of Filaments+1year warranty along with Flashforge Inventor 2+2 spools of filments	01 nos	436,010.00	Central Workshop	Institute
13	Software VMS-RESEA	01 nos	(£ 1622 ) INR 144757	Dr Vamsi Krishna Venuganti	ISSAR 2 Project
14	Hedolph Magnetic Stirrer with Heating	02 nos	(Euro 1669) INR 131180	Prof N Rajesh	DST SERB 2017 project
15	Multi Purpose Refrigerated Micro Centrifuge 5430R with attachments & accessories	01 nos	549,938.00	Pharmacy	Institute
16	Ibanez SRFF 805 Hartke VX 3500 Cable Mono to Mono Jack SLIJ 6 mtrs Bespeco Microphone Stand MSF01 Roland KC 350 Marshall Guitar Amplifier MG4 30W MG30CFX	01 Nos 01 Nos 10 Nos 05 Nos 01 Nos 01 Nos	209,130.05	SWD	Institute
17	Electronic Weighing Balance Quintix 125D-10IN SI No: 35107718	01 nos	177,000.00	Central Analytical Lab	Institute
18	Thermo Forma Liquid nitrogen Container Nalgebe, Wheel accessory Cart, Level Arm	01 nos	540,000.00	Prof K Nagamohan	DBT2 Project
19	Thermal Constant Analyser	01 no	(EUR 33500,) INR 2564946	Mechanical Engg	Institute
20	Microwave Oven Dielectric Resonator (Substrate) TMM10	01 nos	188,800.00	Dr Runa Kumari	RI Grant
21	Auto Clave Portable	01 nos	785,290.00	Pharmacy	Institute
22	Hot Air Oven 95 & 225 Lts	01 & 02 nos	245,818.00	Civil Engg	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
23	Wagtech Potatest® PTW 10020	01 no	425,000.00	Civil Engg	Institute
24	Dell Precision Tower 5810 XCTO Base	01 nos	225,380.00	Dr Arshad Javed	DST Project
25	Dell Core Optiplex 7050Desktop	01 nos	148,600.00	Dr Soumya J	DST Project
26	Lenovo Desktop V520 External Hardisk 2TB seagate, DVD Harddriver	03 nos 01 nos	180,953.00	Central Library	Institute
27	Servo Valve for Level Control Trainer	01 no	180,660.00	Chemical Engg	Institute
28	Master Cam Software Upgration	01 no	177,000.00	Central Workshop	Institute
29	Minilys homo genizer	01 nos	364,384.00	Pharmacy	Institute
30	Thermal & Electrical Conductivity of metals Quick Tube Method	02 nos 02 nos	254,319.00	Physics	Institute
31	Z100 TEW Allround Line Table-Top Machine Load Fram Z100 TEW Allround Line Table-Top Machine Load Cell, Control Panel, Sub Load Cell 5kN,BOW Grips,Screw Grips,Compression & Flexur Kit, Extensometer, Software, Environmental Chamber, HF Furnace,HT Extensometer,Documentation, Shipping & Handling	01 nos	(Euro 205245) INR 16078934	Central Analytical Lab	Institute
32	Computerised Izod charpy impact test motorized notch Cutter	01 nos 01 nos	182,095.00	Chemical Engg	Institute
33	ST 8R Sorvall legend Micro Centrifuge legend Micro 17 Centrifuge Quanto Studio 3 Real Time PCR Thermo forma ULT - 86 freezer upright painted capcity - 368 Liters	02 nos 01 nos 01 nos 01 nos	3,000,000.00	Prof K Nagamohan	Institute
34	Permeability Test model torrent Corrosion analyser Ultrasonic Pulse vector Rebar Locator	01 nos 01 nos 01 nos 01 nos	127,204.00	Civil Engg	Institute
35	Fiber Modules UTP Modules CISCO 2960 8 port SWITCHES CISCO 2960 24 port SWITCHES CISCO 2960 48 port SWITCHES Unmanageable 8 port SWITCHES Cisco Access Point Fiber Patch Cord I/O s UTP Cat 6 Cable Box RJ45 Connectors box	05 nos 03 nos 05 nos 03 nos 03 nos 15 nos 05 nos 20 nos 100 nos 01 nos 05 nos	834,490.00	Computer Centre	Institute
36	Digital Power & Energy Meter	01 nos	182,900.00	Chemistry	Institute
37	COMSOL Multiphysics RF Module	01 nos	116,820.00	Central Computing	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
				Laboratory	
38	Advanced Microstrip Trainer Kit VX-2012A Advanced Microstrip Trainer Kit VX-2012B Microwave Power Meter Micro processor Based Tripod Stand	01 nos 02 nos 01 nos 01 nos	641,595.00	EEE	Institute
39	Extruder Spheroniser Fluid Bed Processor	01 no 01 no 01 no	1,824,988.00	Pharmacy	Institute
40	IRB 120 Robot : 03 kg payload and 0.58m Reac lind 60% against Delivery	01 nos	1,416,000.00	Mechanical Engg	Institute
41	Ventilation Cages	01 nos	715,212.00	Prof D Sriram	DBT TATA Innovation Fellowship
42	PCB L&T Canister	01 nos	661,390.00	Mechanical Engg	Institute
43	FPGA Evaluation Board	01 nos	800,000.00	Dr Soumya J	DST Project
44	Avance Neo 400Mhz oneBay FT-NMR Spectrometer	01 nos	USD 350000, INR 20711250	Central Analytical Lab	Institute
45	HP DL60 Rack Server 1U, HP 1920-48G Manage Switch HP KVM 8port switch HP Monitor 21.5" HP 1650 Storage NAS HP MSA 1040 4port 1GB	20 Nos 03 Nos 04 Nos 04 Nos 01 Nos 01 Nos	4,150,387.00	WILP	Institute
46	Campus Licence for Bentley Academic solutions	01 nos	1,000,000.00	Central Computing Laboratory	Institute
47	Computer Linux instrument Flowsight	01 Nos	733,910.00	Biological Sciences	Institute
48	Bentley Lab Software	01 nos	700,000.00	Central Computing Laboratory	Institute
49	MB SPS Compact Compact Solvent Drying System	01 nos	(EURO 7000,) INR 544859	Chemistry	Institute
50	Haematology Analyzer Biochemistry Analyzer	01 each	472,000.00	Community Welfare Division	Institute
51	Material for Digital Studio	LS	283,255.00	WILP	Institute
52	Lifepack CR Plus AED inc CPR Manikin Parti Man Emergency Bag	01 nos	164,780.00	Medical Centre	Institute
53	1 Prewired strain Gauge (10-PKG) Liner 3mmgrid 2 Planar Rosettes 3 Instantadhesive for short term use on metal parts 4 8channel USB based stain measurement application	01 no 03 no 03 no 01 no	330,376.00	Dr Arshad Javed	DST-ECR project
54	Dual Syringe Diluter	01 no	477,900.00	Dr Ramakrishna Vadrevu	BRNS Project
55	Magnus Microscope Model INVI Std. Set	01 no	117,500.00	Prof D Sriram	DBT Indo sweden 3 project



Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
56	Work station(Intel Xeon E5,1TB SATA,Nvidia Quadro p600 2GB,)	01 no	105,999.00	Dr Durba Roy	DST-SERB PDF
57	Leica S9 D Trinocular stereo zoom microscope with TL 3000 Light base along with accessories	01no	479,641.00	Biological Sciences	Institute
58	Mastercycler pro S + Control Panel, 230V	01no	345,000.00	Dr Gireesha T Mohannath	DST-Ramanujan Fellow ship project
59	Dell Work station Precision 5820 Tower XCTO Base	01no	179,230.00	Dr Barsha Mitra	RI Project
60	1) Summits make aero branded 40 cfm P/N.SP004,Air dryer, Refrigeration,Platronika 2) Auto Drain Valve. Make:Lenora 3) 200 ltr SS304,Stainless steel air receiver,suitable for standard fittings 4) Filter regulator 1/2" 5)Summits Make, Aerobranded, Air filter 40cfm P/N.SF004DA,5Micron Free filter 6) Summits make aerobranded, air filter 40cfm P/N SF004DX,1 Micron micro filter 7) Summits make, Aerobranded, Air filter,40cfm,P/N.Sf004DY,0.01 Micron sub-Micro filter 8) SS Pipe line for compressed Air : 9) Model: AL 05, (5 HP) Tank mounted oil free scroll air copressor in Acoustic canopy with standard fittings	01no 01no 01no 01no 01no 01no 01no 01no	801,411.00	Central Analytical Lab	Institute
61	Dell PowerEdge R740 Server	02 nos	731,600.00	Dr Vikranth kumar surasani	DST
62	Supply of Equipment 1) Friction slide apparatus 2) Combined coil and flat belt friction apparatus 3) The combined compression and extension of springs apparatus 4) Model of moment of inertia of flywheel 5) Rope brake and dynamometer 6) Screw efficiency apparatus 7) Structural mechanics apparatus	01no 01no 01no 01no 01no 01no	225,640.00	Mechanical Engg	Institute
63	Supply of equipment 1) Cat.No. 1658033fc: Electrophoresis and blotting system 2) cat NO. 1653312 Spacer plates 1.5mm 3) Cat No. 1653365 10Well combs, 1.5mm	01no 01no 01no	169,906.00	Pharmacy	Institute
64	Dell OptiPlex 3050 SFF(Intel Core i5,8GB,1TB,19" Monitor)	30 no	1,150,500.00	Computer Centre	Institute
65	Verfrost single solid door upright freezer fkg 400-Single door upright showcase cooler	01no 01no	121,724.00	Prof K Nagamohan	Opera project
66	DELL Work Station, Precision 7820 Tower XCTO Base	01no	177,236.00	Dr Angan Sengupta	R.I grant project

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
67	Galaxy 170 S CO2 Incubator with Accessories	01 nos	810,999.00	Biological Sciences	Institute
68	Software Radio Kit and accessories	01 nos	658,346.00	EEE	Institute
69	System Polymer PT 3100D Drive with Regulator with Customs & handling Charges	01 nos	CHF 8250, INR 634635.99	Pharmacy	Institute
70	Design, Manufacturing of Shake Table including foundation Model: UM-ST-200 KN-1	01 nos	2,300,000.00	Dr S C Mohan	DST Project
71	Millicell ERS-2 Volt-Ohm Meter, 1 Set	01 nos	208,705.00	Dr Balaram Ghosh	Institute
72	DeskTop Shaking Incubator model: NB-205	01 nos	120,000.00	Dr Ramakrishna Vadrevu	BRNS Project
73	Apple MAC Book MPXV2HN/A 3.1 GHz dual-core Intel Core i5/8GB RAM/256GB SSD/13" Screen	01 nos	147,900.00	Dr Sharan Gopal	DST SERB Project
74	PHY-1003 LPC 2148 BASED ARM-7 TRAINER KIT	06 nos	117,882.00	EEE	Institute
75	Jasco UV Vis Spectrophotometer Model: V-750	01 nos	(YEN 1185000,) INR 778263.49	Pharmacy	Inst
76	Experiment with a Axial-Flow Fan Piston Pump Demonstrator Pelton Turbine Demonstrator Turbine Demonstrator Supply Model Centrifugal Compressor Demonstrator Heat Conduction & Convection	01 nos 01 nos 01 nos 01 nos 01 nos 01 nos	4,031,482.00	WILP	Institute
77	Silverson Heavy Duty Laboratory Mixer	01no	592,830.00	Civil Engg	Institute
78	software for PTV Vissim software and maintenance	01no	429,666.00	Civil Engg	Institute
79	Nucleofector 2d Devices	01 nos	493,500.00	Biological Sciences	Institute
80	Spectro Photometer Nanodrop Make: Thermo Fisher CY509106 Thermo Forma Liquid Nitrogen Container Speed VAC Concentrator SPD1030 P1 Thermo Scientific	01 nos 01 nos 01 nos	1,950,000.00	Biological Sciences	Institute
81	Dual Channel Microphone System Make/Model: MIPRO ACT	06 nos	269,512.00	ESD	Institute
82	aspen one universities Software	01 nos	(USD 2000,) INR 140790.00	Central Computing Laboratory	Institute
83	HP Desktop (intel i3,4GB,1TB SATA, 19" HD Screen, HP Ink Printer 3KVA UPS	01 nos 01 nos 01 nos	114,682.00	Central Analytical Lab	Institute
84	Celestron CPC 925 telescope with accessories	01 nos	498,000.00	Physics	Institute
85	Dell Latitude 3490 BTX	20 nos	837,800.00	Computer Centre	Institute
86	Dell Server Poweredge R540 Server	01 nos	470,000.00	ID	Institute

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
87	Clean Air Vertical Laminar Air Flow benches	01 nos	139,995.00	Biological Sciences	Institute
88	Universal Laser System Model: VLS 3.6 HPDFO Lens with Handling Charges	01 nos	(USD 16565,) INR 1250393	EEE	Institute
89	Traffic Safety Speed Measuring Device Alcohol Analyser Alcoeasy A30 Sound Level Meter NL52 Ex Rion Fright	01 nos 01 nos 01 nos	696,790.00	Civil Engg	Institute
90	Panther Lathe Machine	03 nos	908,504.00	Central Workshop	Institute
91	Licencing Srevice for SAP 2000 Ultimate for 10 users	01 nos	295,000.00	Central Computing Laboratory	Institute
92	HOBART, Model:N50,N50 Mixer Make : HO Bart	01no	281,360.00	Civil Engg	Institute
93	Time Correlated Single Photon Counting Fluoresence Spectro meter with handling charges	01 nos	(UKP 48213,) INR 4477860	Central Analytical Lab	Institute
94	Steady State Modular Fluoresence Spectrometer with handling Customs & Charges	01 nos	(USD 61125,) INR 4396316	Central Analytical Lab	Institute
95	Keysight ADS Premier University Licence	05 nos	1,180,000.00	EEE	Institute
96	Supply & Installation of Cisco Smartnet Services, Deployment Services	33no	30,211,891.00	Computer Centre	Institute
97	Apreo Lo VAC - The core instrument	01no	5,570,361.00	Central Analytical Lab	Institute
98	sonic ultrasonic processor VCX750	01no	(USD 6100,) INR 446808	Chemistry	Institute
99	HDM-4 Software Academic Licence	01 nos	(USD 1500,) INR 105592.50	Civil Engg	Institue
100	SHARP Digital MFP MX-M754N Printer	0 Nos	740,450.00	ESD	Institute
101	Complete Western Blotting Setup Mini P4 System/MT-BLOT/MOD/PP HC	01 nos	188,853.00	Dr Vivek Sharma	RLS Fellowship
102	Fluke Digital Multimeter 15B+	20 Nos	135,700.00	EEE	Institute
103	Dell OptiPlex 3050 Small Form Factor BTX Dell Latitude 3490 BTX Laptop Intel Core i5-7200U,8GB DDR4,Ubuntu Linex 16.04,14"HD screen.	20 Nos 25 nos	1,843,750.04	Computer Centre	Institute
104	Software (WINHOME 10 SNGL OLP NL Acdmc Legalization HetGenuine)	59 Users	509,618.40	Computer Centre	Institute
105	Tongue Carcinoma Human Pharyngeal Carcinoma Human	01 nos 01 nos	119,890.00	Biological Sciences	Institute
106	TRNSYS Software	01 nos	(USD 5581.25) INR 488040	Central Computing Laboratory	Institute
107	Complete Westren Blotting set-up with Accessories, Bio-Ra	01 Nos	188,853.00	Dr Vivek Sharma	RLS Fellowship

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
108	Jaw Crusher	01 nos	178,500.00	Civil Engg	Institute
109	HP Pavillion x360 14 CD0055TX Laptop HP M227fdw Laserjet pro all-in-one	01 nos 01 nos	125,356.00	Dr Surya Shankar Dan	Opera award project
110	SIMULIA Academic Abaqus software	01 nos	332,010.00	Central Computing Laboratory	Institute
111	Dell Work station(Precision 3630 Tower CTO BASE)	01 nos	179,950.00	Dr Harish V Dixit	RIG
112	Probe Station	01 nos	443,205.00	EEE	Institute
113	PU Cylindrical Mould ZI2028 PU Bhem Mould ZI2026 Cement Cube 70.6x70.6x70.6 Cast Iron Concrete MouldZI2024I PU Mould ZI 2027	10Pcs 10Pcs 10Pcs 10Pcs 20Pcs	132,868.00	Civil Engg	Institute
114	Ni Data Acquisition Hardware NI 9234 BNC Series Sound & Vibration input module	01 nos	152,565.00	Dr S C Mohan	RI Grant
115	Heidolph Rotavac Control Vacuum Pump	01 nos	(Euro 1700) INR 144800	Dr Manab Chakravarty	CSIR & PDF Project
116	Linkproof 1008 Upgrade to Linkproof 2008 Software	01 nos	837,800.00	Computer Centre	Institute
117	Bentley Software	01 nos	657,640.00	Central Computing Laboratory	Institute
118	Seismic Miniature Low Noise Coaxial Cable	04 nos 04 nos	198,975.00	Civil Engg	Institute
119	Seismic Miniature Low Noise Coaxial Cable	02 nos 02 nos	108,150.00	Dr S C Mohan	DST-project
120	Electronic Over Head Stirrer Propeller Stirrer Plate Stand Boss Head Clamp Magnetic stirrer with Heating	01 nos 02 nos 01 nos 01 nos 01 nos	262,148.00	Civil Engg	Institute
121	Polishing & Cutting Machine Ultrasound Cleaner Low Speed Saw & Consumables	01 nos 01 nos 01 nos	623,942.00	Prof Amit Kumar Gupta	DRDO Project
122	Muffle Furnace MX10-13TP	01 nos	175,182.00	Chemical Engg	Institute
123	LCV type Bench Fume Hood WITH Exhaust system & Fan	02 nos 01 nos	336,747.00	Chemistry	Institute
124	READY TO GO (RTG Legend 430 1U Server)	02 nos	299,720.00	Dr Debashree Bandyopadhyay	DST-SERB Project
125	Vibration Meter	01 Nos	137,929.00	Mechanical Engg	Institute
126	One Time Deployment Service with One Year Support One Time Deployment Service of Open Stack for 5 Servers with One Year Suppor	Ls	678,500.00	WILP	Institute
127	Dell Mobile workstation Mobile Precision 7730 CTO BASE (8th Gen Intel Core i7,2x8GB DDR4,17.5" FHD)	01 Nos	185,496.00	Dr Sudeeptra Mishra	RI Grant

Sl. No	Item Description	Qty	Bill Amount	End User	Account Head
128	Spray Dryer Model SPD-P-111 Portable	01 nos	1,964,435.00	Pharmacy	Institute
129	ZedBoard Zynq-7000 ARM/FPGA SoC Development Board, along with customised Acrylic Sheet	04 nos	149,497.00	EEE	Institute
130	Comsol Multiphysics Software	01 nos	620,326.00	Central Computing Laboratory	Institute
131	Powder Mixing unit	01 nos	330,750.00	Central Workshop	Institute
132	MicroPulser Electroporator Including CuvetteChamber	01 nos	194,806.00	Dr Ruchi jain Dev	DBT-Ramalingaswamy project
133	Deep freezer RQV-400 Plus led Remi voltage stabilizer VS-03	01 nos 01 nos	163,029.00	Chemical Engg	Institute
134	Security Appliance Sophos XF 553 CTEA xG550 Sophos EP 553	01 nos 01 nos	1,680,000.00	Computer Centre	Institute

Annexure 'B3-8  
(11 Pages)  
Ref: AR 2018

**LIST OF FIRST DEGREE THESIS COMPLETED DURING THE YEAR 2017 IN HYDERABAD CAMPUS**

**Second Semester 2017-18**

S.No	ID Number	Name	Title	Supervisor	Department
1	2013B1A10827H	Kothuri Sri Charan	Optimization of Cooking and Bleaching process used in Industry	Dr. Jayati Ray Dutta/Dr. Ramesh Babu A	Biological Sciences
2	2013B1A40656H	Pottigari Varun Kumar	Understanding Heavy Metal stress in Bacteria and their mitigation mechanisms involving Siderophores	Prof. Vidya Rajesh	Biological Sciences
3	2013B1AB0730H	Kavuri Sai Sushanth Chowdary	Quantum chemical study of the reaction mechanism of quinolone formation from Type III polyketide	Dr. Debashree Bandopadhyay	Biological Sciences
4	2013B1AB0844H	Abhishek Dave	EEG-based analyses of brain activity to assess the efficacy of therapies in alleviating chronic pain in temporomandibular joint disorder (TMD)	Dr.Sridevi Sarma/Prof Suman Kapur	Biological Sciences
5	2013B2A70534H	Naga Sai Sri Kamineni	Graph based named entity recognition	Dr.Durba Roy/Dr. Aruna Malapati	Chemistry
6	2013B2A80774H	Sai Pranavi Avadhanam	Fault tolerant Network on Chip using Artificial Neural Networks	Dr. Balaji Gopalan/Dr.Soumya J	Chemistry
7	2013B3A70595H	Kovvuru Gunasekhar Dora	Wage Inequality in Unorganized Labor of India – Issues and Challenges	Dr. Archana Srivastava	Economics & Finance
8	2013B3AA0663H	Sai Sri Srujana Gottumukkala	Study of liquid workforce – factors affecting their engagement in the organization	Dr.Swati Alok	Economics & Finance
9	2013B3AA0678H	Saumen Bhattacharjee	Role of education in determining economic growth	Dr. Sudutta Banerjee	Economics & Finance
10	2013B3AA0741H	Korrapati Srujan	Excess Co-movement among unrelated commodity prices	Dr. Rishi Kumar	Economics & Finance
11	2013B3AB0604H	Vidur Monga	Impact of infrastructure spending on foreign direct investment in developing countries: an empirical investigation	Dr. Mini Thomas P	Economics & Finance
12	2013B4A10492H	Taori Barkha Mahendrakumar	LRS Bianchi-I Model in $f(R)$ Theory of Gravity	Prof. P. K Sahoo	Mathematics
13	2013B4A30640H	Shubham Ranjan	Development of a parallel mesh free solver based on PETSc	Dr. N Anil	Mathematics
14	2013B4A30902H	G Venkateshwara Rao	NP - Completeness of dominating set problem	Dr. Michael Alohes	Mathematics
15	2013B4AA0682H	Jatin Lalwani	Statistical analysis of health Indicators in India	Dr. P T V Praveen Kumar	Mathematics
16	2013B4AA0886H	Veerav Chebrolu	$f(R)$ Theories of modified gravity	Prof. P. K Sahoo	Mathematics
17	2014A1TS0422H	Githin Tom Zachariah	Modeling the drying of Porous Media using Lattice Boltzmann Method	Dr. Vikranth Kumar Surasani	Chemical Engineering
18	2014A1TS0547H	Shakti Prasad Padhy	Surface functionalization via microchannel cantilever spotting and dip-pen nanolithography	Dr. Michael Hirtz/Dr. Balaji Krishna Murthy	Chemical Engineering

S.No	ID Number	Name	Title	Supervisor	Department
19	2014A1TS0595H	Sainath Suryakant Mamde	The system biology of cells(Prediction of the CNV and Patient Survival by machine learning)	Dr. Sriram Chandrasekaran/Dr. Vikranth Kumar Surasani	Chemical Engineering
20	2014A1TS0610H	Sreekar Guggilam	Bioconversion of Algal biomass to Fuels and Value added products	Dr. Asma Ahmed	Chemical Engineering
21	2014A2TS0526H	Arumalla Vamsidhar Reddy	Moisture susceptibility of RAP asphalt with softer grade PMB	Prof. Sridhar Raju	Civil Engineering
22	2014A2TS0550H	Gonnabathula Shanmukha Sai Avinash	Ground Improvement of Black Cotton Soil with Alkali Activated Binder	Dr. Anasua GuhaRay	Civil Engineering
23	2014A2TS0602H	Amula Vishal Pramod Goud	Evaluating best management practices in an urban watershed	Prof. K S Raju	Civil Engineering
24	2014A4TS0182H	Phatak Onkar Arvind	Optimization and control of renewable wind energy systems	Prof. S S Deshmukh	Mechanical Engineering
25	2014A4TS0204H	Kedar Saurabh Jaysing	Experimental investigation on the heat transfer and rheological characteristics of magnetic nanofluids	Dr. R. Parameshwaran/Dr. Jalaiah	Mechanical Engineering
26	2014A4TS0240H	Sindhuja Kashetty	Developing a code to compute the proper orthogonal decomposition (POD) of CFD datasets of transition on a wind turbine blade	Dr. Joshua R Brinkerhoff/Dr. Supradeepan K	Mechanical Engineering
27	2014A4TS0360H	Jinaga Ujwal Kishore	Numerical simulations and validation of ablation material for rocket nozzle	Prof. Jeevan Jaidi	Mechanical Engineering
28	2013B4AB0488H	Madadi Pranoy Raj	Composition and Characterization of Ternary Coating Systems	Prof. N S K Reddy	Mechanical Engineering
29	2014ABTS0622H	Bivob Purkayastha	Modelling, Simulation and Experimental Verification of heat transfer in Fluid flow through micro channels	Dr. Arshad Javed/Dr. Satish Kumar Dubey	Mechanical Engineering
30	2014ABTS0684H	Ahandeep Manna	Investigation of Validity of Hele-Shaw approximation in two phase flows	Dr. Prasad Perlekar/Dr. K R C Murthy	Mechanical Engineering
31	2014A4TS0412H	G Gokul Nanda	Development of advanced dielectrics based on precursor derived NB2O5	Dr. Ravi Kumar N V/Dr. Sujith	Mechanical Engineering
32	2014A5TS0804H	Sateja Paradkar	Novel Strategies to Reverse the Epithelial-Mesenchymal Transition in High Grade Serous Ovarian Cancer	Dr. R Wein Berg/Dr. V Vamsi Krishna Venuganti	Pharmacy
33	2014A7TS0014H	Modugu Koushik Kumar Reddy	Automatic Detection of Anti-Patterns in Web Services	Dr. Lov Kumar	Computer Science and Information system
34	2014A7TS0055H	Aditi Ghosh	Sentence Unit Detection Using Machine Learning	Dr. Chug Engsiong/Dr. Aruna Malapati	Computer Science and Information system
35	2014A7TS0095H	Ipsit Sahoo	Final report on deep learning framework for malware detection in IOT environment	Dr. Geetha Kumari/Prof. N L Bhanu Murthy	Computer Science and Information system
36	2014A7TS0096H	Aniketh Janardhan Reddy	Analyzing Human Attentional Mechanisms using Functional Magnetic Resonance Imaging Data and Machine Learning	Dr. Sidharan Devarajan/Dr. Aruna Malapati	Computer Science and Information system

S.No	ID Number	Name	Title	Supervisor	Department
37	2014A7TS0107H	Vishal T	Multi criterion decision making for irrigation systems	Prof. N L Bhanu Murthy/Prof. K S Raju	Computer Science and Information system
38	2014A7TS0113H	Shikhar Bharadwaj	Designing Safe Asynchronous Systems	Mr. Akash Lal/Dr. Aruna Malapati	Computer Science and Information system
39	2014A7TS0117H	Naman Goyal	Machine learning in IOT Security Algorithm and Applications	Dr. Geetha Kumari/Prof. N L Bhanu Murthy	Computer Science and Information system
40	2014A7TS0120H	Piyush Chawla	Link Prediction in (Multi-lingual ) Knowledge Graphs	Prof.Jens Lehmann/Prof. N L Bhanu Murthy	Computer Science and Information system
41	2014A7TS0188H	Jonnalagadda Kiriti Reddy	Critical analysis of afforestation public policy using geo-tagging for e-governance	Dr. Sudeepta Mishra/Dr. Lavanya Suresh	Computer Science and Information system
42	2014A7TS0527H	Bhargav Kanuparthi .	Investigating Backpropagation Algorithms that are Biologically Plausible	Yoshua Bengio/Dr. Aruna Malapati	Computer Science and Information system
43	2014A7TS0855H	Mathur Aditya Rajneesh	Music Generation using Neural Networks - a survey	Dr. Aruna Malapati/Dr. Pranesh Bhargava	Computer Science and Information system
44	2014A7TS0865H	Mehta Viral Paresh	Measuring and Modeling Tail Latencies of High Throughput Cloud Services	Sreangau Acharyyaa/Dr. Geetha Kumari	Computer Science and Information system
45	2013B5A70064H	V Vasudha	Surface Reconstruction using Binary Solver (2D)	Dr. Pierre Alliez/Prof. Tathagata Ray	Computer Science and Information system
46	2014B5TS0552H	Punnamaraju D P S V G Rahul	Usage of number theory in optics	Dr. K V S Shiva Chaitanya	Physics
47	2014B5TS0649H	Suvvada Sarath Chandra Naidu	Application of perturbation theory to hydrogen like atoms	Dr. Rahul Nigam	Physics
48	2013B5A40832H	B Bharath Kumar	Study of effect of different types of coatings on machinability	Prof. N S K Reddy/Dr. V Satyanarayana Murthy	Physics
49	2013B5A70836H	Shashwat Vardhana	Automation of root finding algorithms	Prof. P K Thiruvikraman	Physics
50	2014A3TS0331H	Vaibhav Gupta	Implementation of Ternary Logic using Novel Tunnel FET devices	Dr. Surya Shankar Dan	EEE
51	2014A3TS0434H	Vempali Mani Ratnam	Characterization Of Silica Based Magnetic Nano beads And Investigation Of Its Suitability For Hyperthermia Applications	Dr. Kannan Ramaswamy/Prof. Sanket Goel	EEE
52	2014AATS0299H	V Arvind Rameshwar	On Regenerating Codes and Secure Storage on Distributed Systems	Prof. Navin Kashyap/Dr. Shaikshavali Chitraganti	EEE
53	2014AATS0114H	Udit Ameet Kotnis	Capacitance sensing in MEMS	Prof. Sanket Goel	EEE
54	2014AATS0327H	Shitole Aditya Jayantrao	Power-Efficient Sum of Absolute Differences Hardware Architecture Using Adder Compressors for Integer Motion Estimation Design	Dr. S K Chatterjee	EEE



S.No	ID Number	Name	Title	Supervisor	Department
55	2013B1A30476H	Kartik Rattan	Real time measurement of deformability index for electro mechano-diagnostics & proof of concept of polymerase chain reaction on electro wetting on dielectric device	Prof. Prosenjit Sen/Mr. Balasubramanian	EEE
56	2013B5AA0559H	Agrawal Akshaya Ajay	Developing An Algorithm For Autonomous Navigation Of Drones	Dr. S N Omkar/Prof. Prabhakar Rao	EEE
57	2013B1A30783H	P Abhisek	Low cost ECG signal generation device suitable for use in rural India	Prof. Ramakrishna Vadrevu	Biological Sciences
58	2013B1A40691H	Lakshay Sethi	Immune invasion by Mycobacterium tuberculosis and its treatment	Prof. Fan yuan/Prof. Suman Kapur	Biological Sciences
59	2013B1A70909H	Burra Prakruthi	Forman curvature in directed biological networks	Dr. Areejit Sama/Prof. Ramakrishna Vadrevu	Biological Sciences
60	2013B2A20594H	Surana Shreyans Rajesh	Synthesis of Fe <sub>3</sub> O <sub>4</sub> nanoparticles by thermal decomposition of ferric citrate	Dr. Balaji Gopalan	Chemistry
61	2013B2AA0518H	Abhijeet Kumar Singh	Neural network potential-energy surfaces for atomistic simulations	Dr. Subhas Ghosal	Chemistry
62	2013B2AB0363H	Gokul T Anandan	Odometry Fusion for Autonomous Mobile Robots	Dr. Murali Krishna/Dr. Arshad Javed	Mechanical Engineering
63	2013B3A70506H	Shubham Kundra	Analysis Of Relationship Between Expenditure On Children and Parents' Education	Dr. Bheemeshwar Reddy	Economics & Finance
64	2013B4A70423H	Jinu M Sunil	Effectiveness of Bug Prediction Models	Dr. D K Satpati/Dr. N L Bhanu Murthy	Mathematics
65	2013B5A20671H	Ajinkya Vinod Naringe	Numerical study of Fluid Structure Interaction in Fluid Sloshing	Prof. P K Thiruvikraman/Dr. Chandu Parimi	Physics
66	2013B5A40434H	Aditya Pratap Singh	Study on design of PM synchronous motor	Dr. Prabhajot Kaur/Prof. P K Thiruvikraman	Physics
67	2013B5A40891H	Ojas Sunil Gupta	Implementing Role Mining Algorithm for RBAC Model	Dr. Barsha Mitra/Prof. P K Thiruvikraman	Physics
68	2013B5AA0567H	Rahul Srinivasan	Gravitational Waves and Black Hole Modelling	Prof. Abhay Ashtekar/Dr. Sashideep Gutti	Physics
69	2013B5AB0771H	Ramkrishna	Nucleosynthesis in Neutron Star Crust	Dr. Sarmisthabanik	Physics
70	2013B1A30871H	Parvathaneni Govardhani	Development and Integration of electrode in Microfluidic devices	Prof. Suman Kapur/Prof. Sanket Goel	Biological Sciences
71	2013B1A70579H	Ayan Bharadwaj	Application of Internet of Things for Environmental Management	Dr. Sankar Ganesh/Mr. Abhishek Thakur	Biological Sciences
72	2013B2A10639H	Shreshth Hari	Design and Synthesis of Novel Heterocyclic Compounds as Antitubercular Agents	Dr. K V G Chandrasekhar	Chemistry
73	2013B2A30367H	Bukkapiindla Anand Babu	Synthesis of 1,10-phenanthroline-5,6-dione and 1,10-phenanthroline-5,6-phenylhydrazone ligands	Prof. R. Krishnan	Chemistry
74	2013B3A10648H	Sudhanshu Kansal	Monetary Transmission Mechanism – Sectoral effects in India Perspective	Dr. Sunny Kumar Singh	Economics & Finance

S.No	ID Number	Name	Title	Supervisor	Department
75	2013B3A10666H	Pratyush Sharan	An Enquiry into NREGA	Dr. Durgesh Chandra Pathak	Economics & Finance
76	2013B3A30530H	Sanjay	Sharing economics and related topics	Dr. Dushyant Kumar	Economics & Finance
77	2013B3A40619H	Manthana Dheeraj Varma	Economic analysis of coated tools	Dr. Sudatta Banerjee/Prof. N.S K Reddy	Economics & Finance
78	2013B3A70591H	I V S Siva Charan	Dynamics of Exchange Rates by using fundamental (macroeconomic) variables and cross-market variables	Dr. China Hussain Yaganti	Economics & Finance
79	2013B3A70723H	Shaik Abdul Khalik	Exchange rate modelling and forecasting	Dr. Bheemeshwar Reddy/Dr. Sunnya Kumar Singh	Economics & Finance
80	2013B4A10524H	Karanam Sashank	Flow of fluids in Tapered and Curved Pipes	Dr. TSL Radhika	Mathematics
81	2013B4A30426H	Yalam Raviteja	Electrical Equivalent circuit of Human Body	Dr. TSL Radhika	Mathematics
82	2013B5A40667H	Varun Singh Shekhawat	Non-Singular Space-Time	Dr. Sashideep Gutti	Physics
83	2013B5A70637H	O Arvind Prasad	Development of physics chat bot	Prof. P K Thiruvikraman	Physics
84	2013B5A80642H	Kartik Jain	Analyzing Policy Mining algorithm for ABAC model	Dr. Barsha Mitra/Prof. P K Thiruvikraman	Physics
85	2014A2TS0559H	Rhythm Singhal	Development of Nano based PCM embedded Cement Concrete for Building Cooling Applications- An Experimental Investigation	Prof. Vinayaka Ram/Dr. Parameshwaran	Civil Engineering
86	2014A4TS0371H	Lingireddy Veera Sai Vineeth Reddy	Development and Analysis of Mathematical Model for Machining of Magnesium Alloy	Prof. N S K Reddy	Mechanical Engineering
87	2014A4TS0459H	Mayank Mangal	Enhancing the material properties of ASS 316 Alloy using Constrained Groove Pressing Process	Dr. Nitin Ramesh Kotkunde	Mechanical Engineering
88	2014ABTS0892H	Pranav Sharma	Rechargeable lithium ion batteries integrated with photovoltaics	Prof. S S Deshmukh	Mechanical Engineering
89	2013B3A40717H	Syed Ubedulla Khadri	Thermo-Economic Analysis of Solar Organic Rankine Cycle	Dr. S P Datta	Mechanical Engineering
90	2013B4A40704H	Aditya Sharma	Study of heat transfer and rheology of Nano fluids	Dr. R Parameshwaran/Dr. N Jalaiah	Mechanical Engineering
91	2013B4A40889H	Karan Tayal	Study on Thermal Management System for Electronic Devices using PCM materials	Dr. R Parameshwaran/Prof. S S Deshmukh	Mechanical Engineering
92	2013B5A10727H	Vignesh Sitaraman	Desalination of Water using Nano-Photonics	Dr. Vikranth Kumar Surasani/Prof. Kannan Ramaswamy	Chemical Engineering
93	2013B5A40842H	Vaibhav Jain	Optimization of the structure and shape of the interferometer housing to reduce the noise caused by flow induced vibrations due to wind.	Dr. G R Sabareesh/Dr. Rahul Nigam	Mechanical Engineering

**First Semester 2018-2019**

<b>S No</b>	<b>ID Number</b>	<b>Name</b>	<b>Title</b>	<b>Supervisor</b>	<b>Monitoring Department</b>
1	2012B4TS0966H	Pransu Tripathi	Graph Theoretic Algorithms	Prof.Michael Alphonse	Mathematics
2	2013A3PS0295H	K S Vishnu Koushik	Detection and Processing of ECG signal	Prof. BVVSN Prabhakar Rao	EEE
3	2013B1A20602H	Prakhar Pincha	Design of dense asphalt mixture with reclaimed asphalt pavement(rap) material and bitumen emulsion	Sridhar Raju	Civil Engineering
4	2013B2A20906H	Anvesh Reddy Japa	Regression Analysis using Time-Motion Studies for MGNREGA Works	Dr. Murari R R Varma	Civil Engineering
5	2013B3A20574H	Nareddy Vedavyas Chandra Mouli Reddy	Significance of mental models in Economics	Dr. Sudatta Banerjee	Economics & Finance
6	2013B5A20736H	D Koushik	Experimental investigations on bitumen aging	Prof.V. Vinayak Ram	Civil Engineering
7	2014A2TS0593H	Shivani Sanjay Mahaddalkar	Multicriterion optimization of water distribution system design using bio inspired algorithms	Prof.A. Vasan	Civil Engineering
8	2014A3PS0402H	Richa Mittal	Game of Thrones, Likes and Political Correctness: How engineering students are being affected by visual media	Prof. Sanket Goel/Dr. Lavanya Suresh	EEE
9	2014A4B50369H	Saaransh Singhal	Study of Dynamics on Recurrence Networks generated using standard Attractors	G. Ambika/Dr. Sabareesh GR	Mechanical Engineering
10	2014B1A20667H	Rishabh Agrawal	Precipitation Prediction Using ANN	A. Jagadeesh	Civil Engineering
11	2014B1A20784H	Kunal Agarwal	Machine Learning for Concrete Design in Multi-Storey Structures	Chandu Parimi	Civil Engineering
12	2014B1A70726H	Anand S Shankar	Magnetic resonance electrography of the liver in children: variations in regional stiffness	RAMKUMAR KRISHNAMURTHY/Dr. Ramakrishna Vadrevu	Biological Sciences
13	2014B1AB0732H	Prashal Agrawal	Generation of non-degenerate graphs of single degree of freedom epicyclic gear trains using acyclic graphs	Prof. Y. V. D. Rao	Mechanical Engineering
14	2014B1AB0902H	Paran Goel	Development of bivalent conjugate vaccine for Typhoid and Paratyphoid	Dr. RAVI MISHRA/Dr. Jayati Ray Dutta	Biological Sciences
15	2014B1AB0913H	Ayush Yadav	Minimum features for any point of care device	Dr. SUMAN KAPUR	Biological Sciences
16	2014B2A20900H	Aniruddha Singhal	Precipitation Forecasting using Artificial Neural Networks	A. Jagadeesh	Civil Engineering
17	2014B2A30910H	Aayushi Sharma	Designing and fabrication of high efficiency organic light emitting diodes	Prof.Manab C	Chemistry
18	2014B2A40780H	Pranav Bang	Effect of inter layer spacing on the band structure of modified graphene-MoS <sub>2</sub> bilayers	Dr.K Sumithra	Chemistry
19	2014B2A40973H	Raghav Salwan	Residual layer free fabrication of metal oxide micro/Nano structures	Dr. Ramakrishnan Ganesan	Chemistry
20	2014B2A80915H	T Jaya Bharath Reddy	Synthesis and characterization of carbon based Nano materials	Dr.Balaji Gopalan	Chemistry
21	2014B3A30935H	Divyansh Mahajan	Routing algorithm & Routing architecture	Dr. Soumya J	EEE

S No	ID Number	Name	Title	Supervisor	Monitoring Department
22	2014B3A70381H	Arvind A S	Analysis of medical data like EEG, ECG and skin sensor data for the emotion state classification using machine learning models like neural networks	Prof. CHNG Eng Siong/Dr. Rishi Kumar	Economics & Finance
23	2014B3A70604H	Yash Raj Jain	Reverse engineering how people learn how to decide	Dr. Falk Lieder/Dr. Rishi Kumar	Economics & Finance
24	2014B3A70739H	Supriya Lakhtakia	Issues of intra-house hold gender inequality and its welfare implications	Prof. Hema Swaminathan/Dr. Rishi Kumar	Economics & Finance
25	2014B4A10507H	G. Tarun Sai	Study on carbon fiber reinforced composites	D. Purnima	Chemical Engineering
26	2014B4A30981H	Prateek Jain	Control and Automation of service mobile robot	Dr. Arshad Javed/Dr. Prasant Kumar Pattnaik	EEE
27	2014B4A40543H	Tarun Kumar. S	Determination of Johnson-Cook Material Model parameters for machine simulations using Inverse Analysis	Dr. Amrita Priyadarshini	Mechanical Engineering
28	2014B4A40694H	Prakhar Tiwari	Design of mechanical fixation for Hoffa's Type-I fracture of Femur	Prof. S. P. Regalla	Mechanical Engineering
29	2014B4A40760H	Shubham Malani	Fashion Analytics	Dr. V.V.HARA GOPAL	Mathematics
30	2014B4A40926H	Manan Agarwal	Engine performance with fuel produced from spent tea leaves	Dr. Nitin Ramesh K/Prof. S S Deshmukh	Mechanical Engineering
31	2014B4A70424H	Vedic Sharma	Mathematics of Tiling Problems	B. SURYDr. SHARAN GOPAL	Mathematics
32	2014B4A70525H	Ahana Ghosh	Mathematical modelling of personal assistant for the human agent	DR. ADISH SINGLA /Dr. P.K.SAHOO	Mathematics
33	2014B4A70582H	Raj Aditya Kumar	Machine learning event identification from tweets in Twitter	Prof. N.L. Bhanu Murthy	Computer Science and Information system
34	2014B4A70648H	Karran Pandey	Topological methods to analyze time varying scalar fields	Dr.Vijay Natarajan/Prof. Tathagata Ray	Computer Science and Information system
35	2014B4A70711H	Sanchit Gupta	Music Genre Classification	Dr. N. ANIL/Prof. BANU MURTHY	Mathematics
36	2014B4A70752H	Abhishek Singh	Software change proneness using AI techniques	Dr. Lov Kumar/Prof. N.L.Bhanu Murthy	Computer Science and Information system
37	2014B4A70755H	Karthik Stivastaka	Handling rare words in language modelling	Prof. Chng Eng Siong/Dr. Aruna Malapati	Computer Science and Information system
38	2014B4AA0745H	Vibhu Agrawal	Automatic localization of body regions by demarcating axial body region boundaries on CT and PET/CT images via deep learning	Prof. JAYARAM K UDUPA/Dr. MANISH KUMAR	Mathematics
39	2014B4AA0758H	Aditi Bodhankar	Silver nanoparticle embedded Cu-ZnO based UV Photodetector	Dr. Souvik Kundu	EEE
40	2014B4AA0762H	Praful Gupta	Application of Game Theory optimal in 6-max Pot limit Omaha	Dr. DIPAK KUMAR SATPATHI/DUSHYANT KUMAR	Mathematics
41	2014B5A20728H	Hitendra Sai A	Application of Berry's phase in Quantum Mechanics	Dr.KV Shiv Chaitanya	Physics
42	2014B5A20994H	Hakkem Hadi Maqbool	Model free prediction of chaotic attraction using machine learning computing approach	Prof.Aravinda Raghavan/Prof.NL Bhanumurthy	Physics
43	2014B5A30740H	Kotyada Chandra Vardhan	High energy broadband Terahertz electromagnetic pulse generation from ultrashort pulse laser filamentation in liquids	Prof. G. Ravindra Kumar/Dr. Harihara Venkata Rama	Physics

S No	ID Number	Name	Title	Supervisor	Monitoring Department
44	2014B5A30766H	Mohit Upadhyay	Energy efficient mapping of computer version Algorithms and deep learning Networks on mobile Embedded Platform	Prof. T. Srikanthan(Dr. Alok Prakash)/Dr. V. Satyanarayana Murthy	Physics
45	2014B5A30960H	Anirudh Bhargav Josyula	Quantum Inspired Gravitational Collapse in (2+1) Dimensions	Dr. Sashideep Gutti	Physics
46	2014B5A30996H	Suraj Partani	To develop a proof of concepts for early stages cancer diagnosis using a novel Biomarker	Prof. Yogeeswari/Dr. Soumya J	EEE
47	2014B5A40564H	Parakh M Gupta	ModQuad: Self-assembling flying modular robots	Prof. Vijai Kumar/ Dr. Supradeepan	Mechanical Engineering
48	2014B5A40676H	Vivek Vardhan Manepalli	Study of lubricant redistribution and condensation on lubricant infused surfaces	Dr. Patricia.B. Weisensee/Dr. N.Jalaiah	Mechanical Engineering
49	2014B5A40712H	Ebenezer Prasanna G	Electrical and Thermal conductivity measurement of PDC SIOC-GNP composite	Dr. R. Sujith	Mechanical Engineering
50	2014B5A70524H	K. Ramasami	Information retrieval for Astronomical Observatories	Prof. Sanjit Mitra/Dr. Rahul Nigam	Physics
51	2014B5A70775H	Aditya Vidhate	Applications Machine Learning Algorithms in Cosmology	Dr. Benedetta Ciardi/Dr. Rahul Nigam	Physics
52	2014B5A70779H	Ayush Jain	Implementation of Heylgo Search Engine using TF-IDF and SVD	Dr. Rahul Nigam/Prof. Sanjit Mitra	Physics
53	2014B5A70932H	Meghana K	Improving visual common sense reasoning in complex video dataset involving human object interaction by learning object properties	Dr. Arjun Jain/Prof. Tathagata Ray	Computer Science and Information system
54	2014B5A70963H	Arvind R.	Classification of Astronomical objects (Extra-solar planets)	Prof. P.K.Thiruvikraman	Physics
55	2014B5A80725H	B. Om Subham	Two-color pump-probe Doppler spectrometry for ultrafast spatial mapping of density dynamics in femtosecond, intense laser induced plasmas	Dr. G. Ravindra Kumar/Dr. Rahul Nigam	Physics
56	2014B5A80767H	Ashutosh Kumar	Microfluidics in Y-channels	Prof.Meenakshi V	Physics
57	2014B5AA0771H	V.R. Dinesh Kumar	Distance and Source Information Retrieval Based on Lighting Measurement	Dr. Jayesh Pabari/Prof. Kannan Ramaswamy	Physics
58	2014B5AA0961H	Ebin Philip	Study of advanced control methods for robotic application	Dr. Shaikshavali Chitraganti/Dr. Sudha Radhika	EEE
59	2014B5AB0658H	Chilukuri Jagadeep	Machining of steel alloy with varying parameters	Prof. N.S.K. Reddy	Mechanical Engineering
60	2014B5AB0716H	Rajat Bansal	Implementation of holonomic drive for autonomous mobile robot	Dr. Arshad Javed	Mechanical Engineering
61	2014B5AB0751H	Venkat Mohit Sornapudi	Molecular recognition by crossed graphene edge electrodes	Dr. Jan Van Ruitenbeek/Dr. V. Satyanarayana Murthy	Physics
62	2015A1PS0760H	Aayush Chaturvedi	Understand & work on product & process development	Mr.Akash Babu/Dr. Angan Sengupta	Chemical Engineering
63	2015A1PS0777H	Deepak Anjna	Study of nutritional indicators of children under the age of 5	Dr. Satyapaul Singh/Dr. Rishi Kumar	Chemical Engineering
64	2015A1PS0795H	Sparsh Sharma	Study of MFC by renewing literature & developing a model subsequently	Dr. Balaji Krishnamujrthy	Chemical Engineering

S No	ID Number	Name	Title	Supervisor	Monitoring Department
65	2015A1TS0669H	MD. Arish Arman	Experimental & modeling studies: Desalination of sea-water using nano-phonotics enabled solar membrane distillation(NESMD)	Dr. Vikranth Kumar Surasani/Prof. Kannan Ramaswamy	Chemical Engineering
66	2015A1TS0714H	Piyush Rath	Study of microgel automation in a gradient of salt	Dr. Ahmed Mourran/Dr. Balaji Krishnamujrthy	Chemical Engineering
67	2015A2TS0480H	Shankar Ram K.	Numerical studies of impact response of concrete using concrete damaged plasticity model	Dr.Kalyana Rama JS/ Dr.Chandu Parimi	Civil Engineering
68	2015A2TS0506H	D.V.V.S Pavan Kumar	Behaviour of a Primary Structure due to effect of Secondary Structures after the occurrence of an Earthquake	Dr.Chandu Parimi	Civil Engineering
69	2015A2TS0589H	Pratik Agrawal	Investigation on risk factors influencing crash occurrence in urban context	Dr.Bandhan Majumdar	Civil Engineering
70	2015A2TS0590H	K. Venkata Purneshwar	Subgrade Stabilization Using Alkali Activated Binder Treated Jute Geotextile	Dr.Anasua GuhaRay	Civil Engineering
71	2015A2TS0602H	E. Aakash Reddy	Mechanical characterization of concrete using alkali activated binders	Dr.Arkamitra Kar	Civil Engineering
72	2015A2TS0603H	Nidhi Sannametla	Numerical studies of dynamic response of concrete using concrete damaged plasticity model	Dr.Kalyana Rama J S	Civil Engineering
73	2015A2TS0612H	Nishant Dua	Development of PCM based Green Building Mortar	Prof.V. Vinayaka Ram/Dr.R. Parameshwaran	Civil Engineering
74	2015A2TS0616H	Aishwary Agrawal	Evaluation of uncertainty in hydrological models	Prof.K S Raju	Civil Engineering
75	2015A2TS0655H	Md. Zaid	Reliability based approach for assessing soil liquefaction potential	Dr.Anasua GuhaRay	Civil Engineering
76	2015A2TS0986H	Lashhanth Dhevaraju	Generation of stress-strain curves for concrete beams made with Alkali activated binders	Dr.Arkamitra Kar	Civil Engineering
77	2015A3TS0222H	S V Padmanabhan	Mathematical modelling of stator-inter turn faults in 3 phase induction motor in matlab and FEM	Dr. Sudha Radhika	EEE
78	2015A3TS0288H	Shubham Jha	Relation extraction using distant supervision	Dr. Partha Partim Talukdar/Dr. Aruna Malapati	EEE
79	2015A3TS0305H	Yohan M R	Development of a social assistive robot and EEG analysis of relative brain activity	Dr. Cathy Bodine/Dr. Alivelu Manga Parimi	EEE
80	2015A3TS0336H	Sarthak jain	Explaining adaptive routing in high-radius large scale interconnection networks	Prof. John Dongjun Kim/Dr. Soumya J	EEE
81	2015A4TS0065H	G. Nitin Simha Reddy	Optimization of process parameters to control porosity in Aluminum castings	Prof. N.S.K. Reddy	Mechanical Engineering
82	2015A4TS0317H	Rishabh Agrawal	Some studies of decision making in machining industries for sustainability	Dr. CP Kiran	Mechanical Engineering

S No	ID Number	Name	Title	Supervisor	Monitoring Department
83	2015A4TS0326H	Poluri Kamal	Enhancement of mechanical properties of TibAlAV alloy using thermo-mechanical processing techniques	Prof. AK Gupta	Mechanical Engineering
84	2015A4TS0362H	Saad Mustafa Rizvi	Modelling of micro-grid using integrated renewable energy system	Mr. Khalid Anwar	Mechanical Engineering
85	2015A4TS0385H	Krishna Raj	Parametric study of 2-D flow past a square cylinder using CFD	Dr. N . Jalaiah	Mechanical Engineering
86	2015A4TS0387H	Ovase Monuddin Syed	Phase change materials, Thermal Energy Storage & Heat transfer	Dr. Parameshwaran/Prof. S.S. Deshmukh	Mechanical Engineering
87	2015A4TS0410H	Onkareshwar Mishra	Gear Mesh stiffness and Dynamic responses of a one stage/multi stage spur gear transmission	Dr. Pavan Kumar P	Mechanical Engineering
88	2015A4TS0419H	Ananya. V. K	Prosthetic Heat Values	Prof. GK Anantha Suresh/Prof. Y. V. D. Rao	Mechanical Engineering
89	2015A5TS0862H	Prem Prakash Singh	Data driven ranking of metabolic pathways	Prof. D Sriram/Shefali Lathwal	Pharmacy
90	2015A5TS0864H	AKHILA KUNAPULI	Treatment of Parkinson's using in-situ gelling system through nasal route	Prof.PUNNA RAO RAVINIL	Pharmacy
91	2015A7TS0082H	Saurabh Khandelwal	Application of deep learning and artificial intelligence for biomedical diagnosis and therapies	Dr. Mohamed Shehata Draz/Dr. Aruna Malapati	Computer Science and Information system
92	2015A7TS0088H	Sidhanth Krishna	Super resolution of images using deep learning in autonomous UAVs	Dr.S.N. Omkar/Prof. Chittaran Hota	Computer Science and Information system
93	2015A7TS0100H	Kriti Goyal	Application of machine learning to solve code SMEU	Prof. N.L. Bhanu Murthy	Computer Science and Information system
94	2015A7TS0121H	Tilak Mundra	Profile guided security sensitive point identification	Prof. Chittaranjan Hota	Computer Science and Information system
95	2015A7TS0139H	Nikhil Iyer	Natural language processing/Deep learning (CS-IS)	Dr. Iryna Guruvych/Dr. Lov Kumar	Computer Science and Information system
96	2015A7TS0149H	Amit Bhatt	Artificial Intelligence	Prof. Chittaranjan Hota	Computer Science and Information system
97	2015A7TS0152H	Nitish Ravishankar	Machine learning for program synthesis	Dr. Prateek Jain/Prof. N.L.Bhanu Murthy	Computer Science and Information system
98	2015A7TS0384H	Dipika Badri	Logical application of configurability in silicon nanowire	Dr. Akash Kumar/Dr. Geetha Kumari	Computer Science and Information system
99	2015A7TS0963H	Vishnu Ramesh	A summarizes for multiple news articles	Dr. Aruna Malapati	Computer Science and Information system
100	2015A7TS0967H	Akash Sebastian	Discovering patterns in data acquired from various on campus	Dr. Aruna Malapati	Computer Science and Information system
101	2015A8TS0478H	Rishabh Jain	Economic analysis of Indian electronics industry	Prof. Sanket Goel/Dr. Sudatta Banerjee	EEE
102	2015AATS0153H	P. Sree Rohith	Automatic musical chord recognition using signal processing techniques	Prof. Preeti Rao/Dr. Shaikshavali Chitraganti	EEE
103	2015AATS0220H	Peddi Sai Vivek	Dark web	Prof.P Kumaraguru/Prof.C R Hota	EEE
104	2015AATS0259H	Edwin Domic	Detection of flooded areas as an application of SAR imaginary in remote sensing	Prof. S K Sahoo	EEE

S No	ID Number	Name	Title	Supervisor	Monitoring Department
105	2015AATS0262H	Adira Mohita	Material and Device characterization using PQMS and SIM to study bandgaps, band structures and breakdowns in materials	Gitansh kataria/Prof.Sanket Goel	EEE
106	2015AATS0983H	Aarati K Mehta	Extending Risk V CPU in order to optimize for code density	Dr.Sumohana S. Channappayya/Prof. Prabhakar Rao	EEE
107	2015ABPS0524H	Ruchik Mishra	Physically interactive Robo Games	Prof. Andrea Bonarini/Dr. Arshad Javed	Mechanical Engineering
108	2015ABPS0672H	Shanthan Kumar Padisala	Enhancement of mechanical properties of mitinol shape memory alloy using Thermo-Mechanical processing techniques	Prof. A. K. Gupta	Mechanical Engineering
109	2015ABPS0745H	Ashvin Vinodh	Effect of control cylinder on vertex shedding	Dr. Supradeepan	Mechanical Engineering
110	2015ABPS0796H	Mriganka Saikia	Menstrual Hygiene Management in India: A Dynamic Supply Chain Model	Dr.Shashank Garg/Dr. Nitin Ramesh K	Mechanical Engineering



Annexure 'B3-9  
(3 Pages)  
Ref: AR 2018

**LIST OF HIGHER DEGREE DISSERTATION COMPLETED DURING THE YEAR 2018**

**Second Semester 2017-2018**

SNo	ID Number	Name	Title	Supervisor	Monitoring Dept
1	2016H1010009H	AJJARAPU SWARNA LALITHA	Prof Srikanta Dinda	Studies on CO <sub>2</sub> capture from simulated flue gas	Chemical Engineering
2	2016H1010010H	SHAURYA MOHAN	Dr Vikranth Kumar Surasani Prof N Rajesh & Prof Vidya Rajesh	Bio sorption of heavy metals from the industrial effluent: Batch and Column studies	Chemical Engineering
3	2016H1010011H	NAMRATA UPRETI	Dr Vikranth Kumar Surasani Prof Srikanta Dinda	Thermal Cracking of Kerosene: Modeling and Experiment	Chemical Engineering
4	2016H1010012H	ABINAYA VENI R	Dr Asma Ahmed Prof Aravinda N Raghavan	Preparation and Characterization of fungal biofilms: Effect of process parameters	Chemical Engineering
5	2016H1010013H	ANUSHA RAJA IYANGAR	Dr Purnima	Coir based applications	Chemical Engineering
6	2016H1010014H	MOHD RIZWAN KAREEMI	Dr Balaji Krishna Murthy	Mathematical Modeling of A Molten-Carbonate Based Direct Carbon Fuel Cell	Chemical Engineering
7	2016H1430017H	ANJU HANNA ALEX	Dr Arkamitrakar	Determination Of Shrinkage Strains Of Alkali Activated Binder Concrete	Civil Engineering
8	2016H1430018H	AMIT KUMAR MAITI	Dr Chandu Parimi Dr Sridhar Raju	Effect of non-uniform contact stresses on the design of flexible pavements using Finite Element Analysis	Civil Engineering
9	2016H1480053H	KOLLI SRAVANI	Dr Parameshwaran Prof Vinayak Ram	Experimental Study of PCM Based External Wall Claddings for energy efficient buildings	Mechanical Engineering
10	2016H1290001H	AREKUTI GEETHIKA	Prof Sharmistha Banerjee Dr Trinath Jamma	Identification of the interacting domains of Staufen2 with CRM1 and HIV-1 Rev	Biological Sciences
11	2016H1290002H	KULKARNI SHREYA SHRIKANT	Prof Sankar Ganesh Prof Sajeli Begum	Effect of Bromelain on DNCB -Induced Atopic Dermatitis-like Symptoms in Mice	Biological Sciences
12	2016H1290004H	ARTHI S D	Prof Vidya Rajesh Dr Trinath Jamma	Immuno-characterisation of Serine Repeat Antigens (PvSERA4 and PvSERA5) of the malarial parasite Plasmodium vivax	Biological Sciences
13	2016H1290006H	ANAND N	Prof Sankar Ganesh	Co-Biomethanation of Municipal Solid Waste Landfill Leachate and Domestic Septage	Biological Sciences

SNo	ID Number	Name	Title	Supervisor	Monitoring Dept
14	2016H1290007H	ANSHIKA GUPTA	Prof Sridev Mohapatra	Characterization of plant growth promoting traits of four potential drought - tolerant rhizobacterial strains	Biological Sciences
15	2016H1290005H	VIVEK NAIR	Prof Suman Kapur	Correlation of Urinary Biomarkers with Physiological states: Fasting and Feeding	Biological Sciences
16	2016H1430019H	K VISHNU CHAITANYA DEEPAK	Prof P N Rao	Performance Of Concrete By Incorporating Nano-Sized Particles	Civil Engineering
17	2016H1430022H	P ABHISHEK R	Dr Arkamitra Kar Dr ANASUA GUHARAY	Developing a Mechanism For Determining The Stress-Strain Characteristics Of Cast In-Situ Ambient Cured Alkali Activated Binder (Aab) Concrete	Civil Engineering
18	2016H1460060H	SUCHITA DASHARATH MAKODE	Dr Y Srinivas Dr V Vamsi Krishna Venuganti	Preparation and evaluation of sustained release formulation using ion pair complexation technique	Pharmacy
19	2016H1460062H	PARAVASTU PATTARABHIRAN SRIJANAKI	Dr V Vamsi Krishna Venuganti	Transcutaneous Immunization Using Calcium Phosphate Nanoparticles Loaded Dissolvable Microneedles	Pharmacy
20	2016H1460063H	TEJAS VINOD BHADKE	Prof Punna Rao Dr Tanaje Venkata Radhakrishna Mullapudi	Method development and validation of Bile acids using LC-MS-MS in different matrix (Rat plasma)	Pharmacy
21	2016H1460065H	PATIL JULY ANIRUDHA MADHURI	Prof Punna Rao Dr Trupti Chitre	Formulation, Development And Evaluation Of A Steroidal Topical Cream	Pharmacy
22	2016H1460066H	KARNAM SRIRAVALI	Prof Punna Rao	Preparation And Optimization of Cilindipine loaded Chitosan Nanoparticles	Pharmacy
23	2016H1460067H	KULKARNI RADHA BALKRISHNA MANISHA	Dr V Vamsi Krishna Venuganti	Fabrication of zein microneedles for transcutaneous delivery of a peptide drug	Pharmacy
24	2016H1460068H	PUJA KUMARI	Dr Srinivas Yaramati Dr V Vamsi Krishna Venuganti	Development and evaluation of antacid formulations A comparative study	Pharmacy
25	2016H1480052H	THAKOR VATSAL DHIRAJSIH	Dr Amitabh Bhattacharya Dr KRC Murthy	To study Flow over Moving Immersed Body and Analyze rate of Heat transfer through fin	Mechanical Engineering
26	2016H1480050H	ANUBHAV VATS	Dr S P Datta	Thermodynamic Analysis of Vapor Compression Refrigeration System	Mechanical Engineering

**First Semester 2018-2019**

S. No	ID Number	Name	Title	Supervisor	Monitoring Dept
1	2013HS430820H	B SRIMAN PANKAJ	Dr Arkamitra Kar	Investigation of utilizing aggregates from broken concrete as a replacement of natural aggregate in alkali activated binder concrete (AAB concrete)	Civil Engineering
2	2017H1430032H	CHAKRAVARTHULA B AJAY MANI TEJA	Dr Mohan S C	Structural Health Assessment of Existing Buildings Without Base Line Data Using Inter-Storey Drift Correlation	Civil Engineering
3	2017H1010019H	PULA BHARGAVI	Dr D Purnima	Nano cellulose Synthesis and Characterization	Chemical Engineering
4	2017H1010020H	MADDURI PRITHVINATH	Dr Angan Sengupta	2-D Modelling of Rising Plume	Chemical Engineering
5	2017H1010022H	WARE SNEHAL VINAYAK	Dr Vikranth Kumar Surasani	Coalbed Methane Extraction Using Co2 Sequestration	Chemical Engineering
6	2017H1010023H	HITHESSH AUGUSTUS	Dr Satyapal A Singh	Fabrication of Nanocomposite Catalysts for Value Added Products	Chemical Engineering
7	2017H1010024H	PICHKARI SAIKIRAN	Dr Balaji Krishna Murthy Dr Sanket Goel	Paper Based Microfluidic Microbial Fuel cell	Chemical Engineering
8	2017H1010025H	SEEMAREKHA DAS	Dr Asma Ahmed Prof Arvind N Raghavan	Growth and Characterization of fungal biofilms for application in bioremediation	Chemical Engineering
9	2017H1010026H	SHARON MARIAM VARUGHESE	Dr Nandini Bhandaru	DURABILITY OF SUPERHYDROPHOBIC SURFACES	Chemical Engineering
10	2017H1010027H	SAYYED SHERAJ ZULFEKHER	Dr Srikanta Dinda	Cracking of Kerosene range Hydrocarbons	Chemical Engineering

BITS Pilani

# annual report 2018

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Part B4: Dubai Campus

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## BITS PILANI, DUBAI CAMPUS

## B4. HIGHLIGHTS FOR THE YEAR 2018

## Dubai Campus

1. Team Trepit consists of 5 BPDC mechanical students namely Mohamed Nawaz Muallim, Tarun Krishna Jayachandran, Pranay Addepalli, Harsith Rani Ashokkumar and Adhitya Natrajan from BITS Pilani, Dubai Campus has won a spot at Intelak Aviation & Travel Incubator for their cohort 3 program alongside a seed fund of AED 50,000/-. The event held on 22nd January 2018 Led by the Emirates Group, GE, and Dubai Tourism, Intelak is a hub that will inspire and develop teams to become part of the conversation in travel and aviation industry. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
2. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize for their Block Chain idea in Start up weekend organized by Google for Entrepreneurs.Techstars Startup Weekend Dubai x INFINITI Smart Cities was a 54-hour event powered by Google for Entrepreneurs designed to provide superior experiential education for technical and non-technical entrepreneurs. The competition held from January 25-27, 2018. AuoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and the seller. Team AutoChain won 6 months incubation program from RAK Incubators and a one year trading license
3. Team IFOR consists of BPDC students Mohammed Suhail, Mishika, Ashlyn D'Souza, Rifah Mohamed, Parv Khandelwal, Sarthak Bhooshan, Anudeepsekhar Bolimera, Adithya Pradeep Nair and Saptadeep Debnath showcased an "Autonomous flying drone to clear fog and smog" and won the Judge's Choice award and Cash Prize of AED 10000 in Robotics and Electronics Category in the INNOVATOR 2018 show held at Abu Dhabi from 1st to February 1-7, 2018. The team was mentored by Dr. V. Kalachelvi, Asst.Prof, EEE, BPDC.
4. Team of students namely Abinaya, Krishna, Jithin and Sripriya from Chemical Engineering Department, BPDC have secured the first runner up position in the category "VISION OF THE FUTURE" for their proposal of "BLACK GOLD FROM VEGETABLE WASTE". A prototype compost bin was developed to reduce the housing ecological footprint. The competition "INNOVATIONS FROM WASTE 2017" was organized by Dubai Municipality held on February 8, 2018. This competition was a platform for students of all ages to showcase their innovative ideas to achieve the UAE Sustainability Goals 2021. The team was mentored by Dr. B.G. Prakash Kumar, Faculty, Chemical Engineering, BPDC.
5. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize of \$ 4000 in the IOT + Smart Cities category and Second Prize of \$ 5000 in Big Battles category in Seaside Startup Summit organized by RAK incubation and accelerator held from February 8-12, 2018, attracted 500 participants, 300 startup owners and 50 investors. His Highness Sheikh Saud Bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras - Al Khaimah inaugurated the event. AutoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and seller. The team was featured in Ajman FM and Armenian TV. Team AutoChain advised by Dr Sankaram, Mechanical department, BPDC and Dr Santoshkumar, CSE department, BPDC.
6. Saugaat Allabadi, IV year CSE, BPDC along other 3 university students secured 2 position out of 30 teams and won a cash prize of AED 15000 in UAE Hackathon competition, the country's biggest data analysis challenge held on February 11-13 2018 which was conducted by Telecommunications Regulatory Authority.
7. On February 16, 2018, a group of Students from BPDC and Faculty Incharge Dr. Geetha participated in a fund raiser 3 km walk event "Dubai cares, Walk for Education".
8. Rida Khan, IV year CSE, BPDC student won the 1st Runner Up prize in Sci-Tech Student Research Seminar Series for her title "Analysis of Airlines' User Tweets To Understand Consumer Sentiment" held on February 28, 2018 at Amity University, Dubai. Dr. Siddhaling Urolagin, Faculty, CSE, BPDC was the supervisor.
9. Mantra awards are held every year in all the BITS campuses these awards were instituted by CEL, in 2009, to recognize and reward outstanding students who have demonstrated extraordinary leadership potential and/or entrepreneurial initiative. The following students are the Mantra Award Winners from Dubai Campus for 2017-18. RAHUL JAIN won Outstanding Leadership- Male, SHARON ALDRIN won Outstanding Leadership- Female, HARSHAL MITTAL won Social Leadership, GOWTHAM.S won Entrepreneur of The Year.



10. BITS Pilani, Dubai Campus team of Abirami Iyer and Atul Krishnan from Expressions (The Public Speaking and Literary Club) stood 4th in a pool of 30+ teams in the inter DIAC university debating competition conducted by American University in the Emirates on Thursday, March 1, 2018. The debate competition followed the American Parliamentary format according to which the duo had to present three impromptu speeches of 8 to 10 minutes each.
11. Team PaySync from BPDC consists of students Naman Kamra, Vedant Bajaj, Ritwick D Souza, Saugaat Allabadi and Shaurya Sood were participated in a two-day Hackathon, Hack @The Track 2018 (powered by AngelHack) at Bahrain International Circuit, Bahrain on March 7-8, 2018 organized by American Express Middle East, in partnership with Unbound Global and IBM. The Team PaySync from BPDC secured 1st position at the event, bagging the Grand Prize of \$20,000. The participants were from Kuwait, Lebanon, Jordan, Saudi Arabia, Egypt and UAE and were challenged to build a solution that makes digital payments more appealing, accessible and relevant.
12. HULT Prize is the world's biggest students' competition, which records a massive participation of more than 100,000 students from over 150 countries. CIIE at BPDC hosts the campus rounds for HULT Prize and provides the teams a platform to work on their ideas by arranging a workspace for their discussions. It was managed by the HULT Prize Campus Co-ordinator, Rhea Remesh 3<sup>rd</sup> year CSE. The HULT Prize challenge this year was to harness the power of Energy to transform the lives of millions around the world. Team Metamorph from BPDC comprising of Jaskanwar Singh (CS), Urvashi Satwani (Chemical), Somil Mathur (CS) and Tushar Agrawal (CS) was placed first at BPDC and represented BITS Pilani Dubai Campus at the regional finals held on March 9-10, 2018 at the HULT Business School, Dubai. The team Metamorph were chosen among TOP 6 teams, out of all the teams from countries like US, Canada, UK, India, Pakistan, Nepal, Lebanon, Turkey, Kenya, Nigeria, Beirut (among a few) to compete in the finals. This feat has not been accomplished by any BITS Pilani Campuses in the history of 10 year old HULT Prize. This is indeed an achievement for our campus and BITS Pilani.
13. The students Shaleen Bengani, Anchit Pandey and Mohammed Shoaib from CSE department, BPDC participated in the 8th Gulf Programming Competition held on March 22, 2018 at Zayed University and have secured the first position. The competition was a five hour continuous tough and competitive coding competition. This year there were 42 participants from UAE, Saudi, Kuwait and Oman. BPDC students solved the maximum number of questions (6 out of 10) in the shortest time. The students were awarded a trophy by the Vice President of Zayed University Prof. Reyadh AlMehaideb. They were also given a cash price of AED 2000 each. The team was mentored by Dr Sujala D. Shetty, Asst.Prof, CSE, BPDC.
14. StartAD, the innovation and entrepreneurship platform anchored at New York University, Abu Dhabi, held a Startup Showcase event for the inaugural Beyond the Pitch Program on April 16, 2018. The ceremony marked the completion of a six-week journey, with 17 student teams from more than 11 universities across **the UAE convening as finalists at startAD's co-working space** to showcase their startup projects. The BPDC team AutoChain comprising of Jaskanwar Singh, Somil Mathur, Jayant Panwar, Tushar Agarwal and Sujith Sizon **won \$1,500 for Best Pitch with a goal of creating UAE's first block-chain car platform.** Team AutoChain has gathered support from RAK Incubator and the Ministry of Economy, UAE.
15. BPDC Students team MediFile comprising of Rajdeep Ghosh, Sarthak Bhooshan Devjani, Ashwin Mohata, Parv Khandelwal and Anubhav Gupta won the 2nd Prize at Techstars Startup Weekend Dubai-University Edition 2018. It was a 54-hour event powered by Google for Entrepreneurs held from April 19-21, 2018. The team bagged the 2nd position, winning a 3 month incubation from RAK Incubators, a 2 month platform provide by Unbox Workspace and 2 Academy track tickets. MediFile is decentralised platform where users can easily store and access their health records at a single place aimed at empowering the patients.
16. BECO Capital is one of the most prominent Venture Capitalist firm in UAE with significant investments in major companies including Careem and Property finder. Falcon Hack Challenge held from April 20-21, 2018 organized by BECO, consisted of solving various real time Programming Challenges posted by multiple organizations on Github platform. Within a period of one day, participants had to show the demo of their solutions for any one of the challenges posted on the Github platform. BPDC team comprising of Mihir Prabhudesai, Dev Gupta and Mridul Bhandari were able to solve two of the problems with their prototype based on open ended Chatbot. They received a one-on-one mentorship with the Microsoft Global Head of AI - Dr. Wee Hyong Tok along with incubation and internship opportunities at BECO Capital.

17. BPDC team got shortlisted from the first SOLAR DECATHLON MIDDLE EAST to participate in SECOND SOLAR DECATHLON MIDDLE EAST (SDME) to be held in November 2018 and in 2020. On April 30, 2018, the announcement was made at the Second International Workshop, which Dubai Water and Electricity Authority (DEWA) organised for the 21 teams from 36 universities in 15 countries participating in the first competition.
18. 11 teams from BITS Pilani Dubai Campus Participated and Presented their research work in Finals of 6th Undergraduate Research Competition conducted by Abu Dhabi University held on April 30, 2018. Around 300 papers were shortlisted for Finals from a pool of over 900 papers. 2 teams have secured prestigious 1st and 2nd place in Computer Engineering and IT section. First Prize of AED 5000 won by Sarthak Sethi in Computer Engineering and IT section mentored by Dr. Jagadish Nayak. Second Prize of AED 2500 won by Shaleen Bengani and Mihir Prabhudesai in Computer Engineering and IT section mentored by Dr. Siddhaling Urolagin.
19. AutoChain Team from BITS Pilani Dubai Campus was chosen to be a part of the UAE Ministry of Economy National Program for Supporting Young and Innovative Companies. In the presence of H.E. Eng. Sultan bin Saeed Al Mansoori, UAE Minister of Economy and H.E Sarah bint Yousif Al Amiri, Minister of State for Advanced Sciences, The Ministry of Economy (MoE), in partnership with 15 government and private sector entities, launched the National Program for Supporting Young Innovative Companies. Jaskanwar Singh and Tushar Agarwal from BPDC presented AutoChain to H.E. Eng. Sultan bin Saeed Al Mansoori, UAE Minister of Economy. The team consisting of Sujith Sizon, Somil Mathur, Jaskanwar Singh, Jayant Panwar and Tushar Agarwal received a special commendation from H.E Sarah bint Yousif Al Amiri, Minister of State for Advanced Sciences.
20. 3 students from BITS Pilani Dubai Campus had participated in Annual NYUAD International Hackathon is a three-day programming marathon, during which renowned international computer science professors, founders of successful startups, technology professionals, and venture capitalists come together at NYUAD to lead teams of talented computer science students from all over the world, to create mobile and web applications. The teams develop innovative applications relevant to diverse fields such as health, education, film, music, business, and science for the benefit of social good in the Arab World. This year's edition of the hackathon took place from April 27-29, 2018 at New York University, Abu Dhabi. Alina Zaidi, along with the rest of her team, secured the 3rd place with her project known as MedLughati. MedLughati is a platform that assists refugees and asylum seekers in communicating with healthcare professionals using machine learning and natural language processing. Rewant Verma, along with his team, secured the 1st place with his application known as Dawa, tackling counterfeit drugs in the region using blockchain based pharmaceutical distribution. Eshwaran Venkat, along with his team, participated and presented the project Kuwaikeb Small Planet, a goal based activity game that bridges the physical and digital world to positively influence good habits in children.
21. 3 Students AMEENA MOHAMMED SULAIMAN, GULAMALIWALA JUZAR HATIM and SHAIK AFREEN AARZA from BITS Pilani Dubai Campus won third prize for their project titled " IoT based autonomous watering and manuring for plants " in an event called Show and Tech 2018 conducted by "The Assembly" on May 5, 2018. There were 25 projects from all over UAE displayed in the event. This event is conducted to make future technology to UAE. The event was attended by industry personnel. One important Message the winning students conveyed is that: The Social Impact and Usefulness of the Project is very important than volume or size of the project. A Simple project with high social impact is the best to be considered.
22. BITS Pilani Dubai campus shined in the Inter University Sports cup 2018 held from May 6-9, 2018 organized for the first time by AMITY University Dubai. BITS Girls Throwball, Badminton and Cricket teams secured the first place and Lawn tennis Boys and Cricket boys were the runners up. Team Members: Throwball (Aishwarya-Captain, Rashmitha, Gayathri, Rishika, Prajna, Sharon, Malvika, Shreya, Shifa, Navisha, Meena, Husna); Badminton Girls (Arosha-Captain, Spoorthy, Kshama, Sanjana); Cricket Girls (Sharon-Captain, Shivani-UAE Player, Malvika, Chinnu, Ambika, Gayathri, Prajna, Kshama, Anandi, Nupur, Arshiya, Husna, Meena);Badminton Boys (Akshai-Captain, Gautam, Yash, Renoy, Aashay.); Cricket Boys (Pavan-Captain, Yasasvi, Nipun, Srihari, Kishore, Shivram, Jatin, Anand, Vishvanth, Rishab, Yash, Kartikey); Tennis Boys (Adam-Captain, Rahul, Kevin, Anubhav, Indraneel).
23. BPDC Student Sarthak Sethi has won the James Dyson Award UAE Competition. The James Dyson Award is an international design award that celebrates, encourages and inspires the next generation of design engineers. It's open to current and recent design engineering students, and is run by the James Dyson

**Foundation, James Dyson's charitable trust, as part of its mission to get young people excited about design engineering.** Out of hundreds of entries across the world, project "Smart Biometric Ring" from BITS secured 2nd position at the JDA UAE competition. Award ceremony for the UAE regional level took place at One&Only Royal Mirage, Dubai on September 5, 2018. Teams were also interviewed by Pulse95 radio station, as well as major newspapers. Dyson will now announce top 20 projects on 21st of September which will be selected from the pool of national winners and runners up from each region. At the end on November 15, 2018, global winner will be announced.

24. On 4th and 5th September 2018, two teams of students from Computer Science Department, BPDC participated in AI Hackathon biggest in MENA region organized by IQPC is one of the biggest event management company in the world. Team of students namely Mihir Prabhudesai, Juzar Gulamali and Dev Gupta mentored by Mr. Nand Kumar, Faculty, CS, BPDC won the first prize of Internships at Accenture, DEWA & Goodies. Team of students namely Ankita Rane, Shivani Sathe & Anandi Sekhar mentored by Dr. Sujala D. Shetty, Faculty, CS, BPDC won the third prize of Ipad Mini & Goodies from Dubai Municipality
25. BPDC Students Anchit Pandey (4th Year CS), Vrushali Patil (3rd Year ECE), Sultan Morbiwala (4th Year Mechanical), Satyarth Vaidya (4th Year CS) and Sejal Chopra (4th Year CS) has won the third Prize and Cash award of INR 2000 for their Project titled "Drone-based Smart Oil Spill Reduction and Containment" in the CSIR-CEERI's Technology Innovation Event 2018 held on September 28, 2018 at CSIR CEERI Pilani, India.
26. BPDC team AERONYX comprising Akansha Das and Ashlyn D'Souza won the Second Position and team ZUV comprising Raagashree Ravi, Komal Harish, Simran Narang, Aatrayee Bhattacharjee, Hiloni Mehta and Sabiha Shaik won the Third Position in the Techstars Global Startup Weekend Dubai, Women Edition 2018, held at DTEC Silicon Oasis, between 15th and 17th November 2018. Team AERONYX received 3 months of co-learning program from QLC in their first ever cohort and Team ZUV wins Squad Goals Smash Room Experience and extended support as well as mentorship from the Coaches and Facilitators of Startup Weekend Dubai Women Edition 2018.
27. BITS Dubai Toastmasters Club Team emerged as Champions in the Division-F Inter Club Debate Contest, a division level **toastmaster's** debate contest which was conducted on November 16, 2018 in American University in the Emirates, UAE. BPDC team won among the 18 teams participated in the contest which are experienced teams than BPDC.
28. BPDC team NaviFly team (Aeronyx) comprising Yashodhan Naik and Shivank Gupta, secured 2nd place in Techstars Women's Start-Up Weekend, 2018, the first women's startup in the middleeast held on 20th November 2018. The team have been selected amongst the top 20 teams in the world to Pitch at Propeller Shannon, Ireland. It is an aviation accelerator which has world re-known partners like Boeing, Datalex, IAA & many others. On November 20, 2018, the NaviFly representatives Yashodhan Naik and Shivank Gupta leave to Ireland to showcase their disruptive innovation. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
29. BPDC Team comprising Mihir Prabhudesai (CS) and Sarthak Sethi (EEE) has won the First Prize amongst 70+ participating teams all across UAE for their Low-Computation Algorithmic Solution for the task of Speaker Recognition in the 2 day coding event Google Developer Group, Codathon for Developers of all ages across UAE was held on November 23-24 2018. The event comprised of solving Algorithmic Challenges for pre-decided tasks ranging from Voice Biometrics to Quantum Cryptography. They were also awarded 25,000 AED Cash Prize by Emirates NBD for their win.
30. BPDC team along with Romanian University (Team EFdeN) reached the final stage of first SOLAR DECATHLON MIDDLE EAST held in Dubai and Secured 4th Place in the world. Students Actively Involved were Jerin Jacob (Dubai Team Lead), Mitesh Aswani, Mohammed Shamroukh, Shubhankan Mukherjee, Nikitha Rajendran, Kartik Math, Pranay Addepalli, Neeraja Narayanswamy, Suyash Agarwal, Smrithi Nagesh, Avani Mishra & Karthika Kumar. BPDC faculty Dr. Gomathi Bhavani, Dr. Shashank Khurana & Dr. Vincent Shantha Kumar were the mentors. The team won numerous awards throughout the competition, and placed well in every contest: 1st in Communication, 2nd in Engineering and Construction, 2nd in Comfort Conditions, 3rd in Sustainability, 4th in Energy Efficiency, 3rd for innovations in energy efficiency (sub-contest), 4th in Sustainable Transportation, 4th in House Functioning, 6th in Architecture, 2nd in the People Choice Awards, with 8923 votes (special category, no points), Placed 4th overall in the world. Was in 1st place for nearly 90% of the competition period. Won 879.47 points overall, out of a total possible 1000.

31. BITS Pilani Dubai Campus students' bagged top honours of Overall Championship of BITS Sports Festival (BSF) 2018 held from 25th to 29th November 2018. The Chief Guest of Award Ceremony was an International cricketing legend, Mr. Virender Sehwag from India graced the occasion and distributed the prizes to the winners. Prof. R N Saha, Director, BPDC and Dr. Priti, Dean, SWD congratulated the winners of BSF 2018. Dr. M. Rafiuddin, Senior Manager, Sports Division, BPDC organized the BSF 2018 with excellence
32. BPDC Team Cartel which included me Sujith Sizon and Sachin Samuel, represented BITS Pilani Dubai Campus at the .edu Capture the Flag competition as a part of Hack in The Box Security Conference Series Middle East chapter and won 2nd Prize. The competition was a Jeopardy Style Capture the Flag Competition for .edu hackers and ninjas held on 27th and 28th November 2018 at Grand Hyatt, Dubai. The competition included multiple categories of challenges, including: reverse engineering, pwnable, web security, AI & blockchain, crypto, MISC (forensic, network analysis), etc. The CTF was held and hosted alongside the .pro CTF which was organised by the XCTF League from China who are known to host some of the hardest CTF competitions in the world.
33. Students Sarthak Sethi (2nd Year) & Karan Gupta (2nd Year) from EEE department were represented BPDC with their project "Smart Energy Harvesting & On-Lane Digital Signage Display Roadways" in the Gulf Traffic 2018 a three-day conference, two days of free seminars, and a prestigious awards show held from December 4-6, 2018 at Dubai World Trade Centre
34. Two BPDC teams are to each receive grants of up to AED 50,000, plus guidance and exposure, to advance their ideas after participating in the second cycle of the University Innovation Programme (UIP), which was conducted by Expo Live with the support of the UAE Ministry of Higher Education and Scientific Research. On successful completion of the project, the BPDC teams will receive guidance from Expo Live, as well as their universities, to advance research and development, create a business model, and grow their team and potentially partner with other entities. Grantees may even have the chance to showcase their innovations to millions of people at Expo 2020 Dubai to be held from 20 October, 2020 to 10 April, 2021, with expectation to welcome 25 million visitors. Expo Live is a USD 100 million innovation and partnership programme launched by Expo 2020 Dubai to make a lasting social impact by funding, accelerating and promoting creative solutions that improve lives or preserve the planet, or both. The BPDC team Glass Microsphere-filled Polymer Composite selected in the theme "Mobility" for the project "for Glass microsphere-filled polymer composite suitable for spacecraft" was awarded the grant. Another BPDC team Power Steppers in the theme "Sustainability" for the "Charge mobile devices on the go using energy created by your body" was awarded the grant.
35. Team IFOR won the Robotics and Electronics category at Innovator Show 2018 in Abu Dhabi. Their proposal was a Fog prevention system using an autonomous VTOL drone. After winning the Innovator we were featured in Gulf News and various news and media entities visited us and our lab at Bits Pilani. IFOR covered in Gulf News: <http://m.gulfnews.com/news/uae/society/uae-students-build-drone%20that-clers-fog-1.2167010>. The participants are: Suhail (2016A3PS0172U) EEE; Mishika (2016A7PS0261U) CS; Ashlyn D'Souza (2016A7PS0003U) CS; Rifah Mohamed (2016A7PS211U) CS; Parv Khandelwal (2015A7PS0265U) CS; Sarthak Bhooshan (2015A7PS0323U) CS; Anudeepsekhar Bolimera (2014AAPS0115U) ECE; Adithya Pradeep Nair (2016A4PS0254U) Mechanical; Saptadeep Debnath (2014AATS0061U) ECE. Dr Kalaichelvi is the faculty mentor.
36. BPDC, in collaboration with three renowned Romanian universities showcased their design of fully solar powered energy efficient house at the Solar Decathlon Middle East 2018 at the Mohammed Bin Rashid Al Maktoum solar park from November 14-29, 2018. The team won an impressive fourth place from among the international teams participated, notably first in Communication context, second in Engineering and Construction, second in Comfort Conditions, third in Sustainability and fourth in Energy Efficiency. Dr Gomathi Bhavani was one of the faculty mentors.
37. Dr Gomathi Bhavani reviewed the following papers for iCRAFT2018 (International Conference on Recent Advances in Fluid and Thermal Sciences) : "Intelligent Control Approach for Fluid Power Transmission of a Wind Turbine System" and "Design, Simulation and Implementation of a single phase shunt active filter, interfacing a PV system to the distribution grid".
38. Dr. Mary Lourde has been a reviewer for IEEE Transactions on Reliability and reviewed a manuscript in the area of state estimation of unmanned aerial vehicle over IoT network.

39. Dr. Mary Lourde has been a reviewer for Elsevier journal of "Microprocessors and microsystems" and reviewed a manuscript on reversible ALU design.
40. Dr.V.Kalaichelvi reviewed two papers for International Conference on Recent Advances in Fluid and Thermal Sciences (ICRAFT 2018) organized by Mechanical Engg Dept at our Campus (5th-7th December 2018) and details are given below:
41. Team Trepit consists of 5 BPDC mechanical students namely Mohamed Nawaz Muallim, Tarun Krishna Jayachandran, Pranay Addepalli, Harsith Rani Ashokkumar and Adhitya Natrajan from BITS Pilani, Dubai Campus has won a spot at Intelak Aviation & Travel Incubator for their cohort 3 program alongside a seed fund of AED 50,000/-. The event held on 22nd January 2018 Led by the Emirates Group, GE, and Dubai Tourism, Intelak is a hub that will inspire and develop teams to become part of the conversation in travel and aviation industry. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
42. 42. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize of \$ 4000 in the IOT + Smart Cities category and Second Prize of \$ 5000 in Big Battles category in Seaside Startup Summit organized by RAK incubation and accelerator held from 8th to February 12, 2018, attracted 500 participants, 300 startup owners and 50 investors. His Highness Sheikh Saud Bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras - Al Khaimah inaugurated the event. AutoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and seller. The team was featured in Ajman FM and Armenian TV. Team AutoChain advised by Dr Sankaram, Mechanical department, BPDC and Dr Santoshkumar, CSE department, BPDC.
43. 43. BPDC team got shortlisted from the first SOLAR DECATHLON MIDDLE EAST to participate in SECOND SOLAR DECATHLON MIDDLE EAST (SDME) to be held in November 2018 and in 2020. On April 30, 2018, the announcement was made at the Second International Workshop, which Dubai Water and Electricity Authority (DEWA) organised for the 21 teams from 36 universities in 15 countries participating in the first competition. The team is mentored by Dr. Vincent Shantha kumar, Dr. Shashank Khurana and Dr. Gomathi Bhavani
44. 44. BPDC Students Anchit Pandey (4th Year CS), Vrushali Patil (3rd Year ECE), Sultan Morbiwala (4th Year Mechanical), Satyarth Vaidya (4th Year CS) and Sejal Chopra (4th Year CS) has won the third Prize and Cash award of INR 2000 for their Project titled "Drone-based Smart Oil Spill Reduction and Containment" in the CSIR-CEERI's Technology Innovation Event 2018 held on 28th September 2018 at CSIR CEERI Pilani, India.
45. 45. NaviFly, a start up led by me, Yashodhan Naik, a student of BITS Pilani Dubai Campus, have been selected amongst the top 20 teams in the world to Pitch at Propeller Shannon, Ireland. It is an aviation accelerator which has world re-known partners like Boeing, Datalex, IAA & many others. On 20th November 2018, the NaviFly representatives Yashodhan Naik and Shivank Gupta leave to Ireland to showcase their disruptive innovation. Recently, the women entrepreneurs from the NaviFly team (Aeronyx) recently secured 2nd place in Techstars Women's Start-Up Weekend, 2018, the first women's startup in the Middle East. The team is mentored by Dr. Vincent Shantha Kumar
46. 46. BPDC along with Romanian University (Team EFdeN) participated in the finals of SDME 2018. Won numerous awards throughout the competition, and placed well in nearly every contest:
- 1<sup>st</sup> in Communication- 2nd in Engineering and Construction
- 2<sup>nd</sup> in Comfort Conditions o 3rd in Sustainability
- 4<sup>th</sup> in Energy Efficiency - also placed 3rd for innovations in energy efficiency (sub-contest)
- 4<sup>th</sup> in Sustainable Transportation
- 4<sup>th</sup> in House Functioning
- 6<sup>th</sup> in Architecture
- 2<sup>nd</sup> in the People Choice Awards, with 8923 votes (special category, no points)
- Placed 4<sup>th</sup> overall in the world. Was in 1<sup>st</sup> place for nearly 90% of the competition period o Won 879.47 points overall, out of a total possible 1000. The team is mentored by Dr. Vincent Shantha kumar, Dr. Shashank Khurana and Dr. Gomathi Bhavani

47. Team “Glass Microspheres Filled Polymer Composites” participated in Expo 2020 University Innovation Programme (UIP) and secured funding of AED 50,000. More than 500 student groups from 57 universities across the UAE submitted applications as part of the UIP’s second cycle out of which only 35 reached to the second round. The final stage of evaluation took place on Saturday November 24th 2018 at Expo 2020 main office in Dubai where our students pitched the idea in 5 minutes and impressed the judges to secure a place in the top teams to be funded. The students worked with Dr. Priyank, Assistant Professor, Mechanical Engineering, BPDC.
48. Mantra awards Feb 2018, Harshal Mittal for Social Leadership, Gowtham S. for Entrepreneur of the year, Mihit Prabhudesai Innovator of the year.
49. Jaskanwar Singh, Sujith Sizon, Tushar Agarwal, Jayant Panwar and Somil Mathur, won first position in 1st position in the IOT + Smart Cities category (USD 4000) and + 2nd position in Big Battles (USD 5000) in Autochain Seaside Startup Submitm held during February 8-12, 2018.
50. Rida Khan was first runner-up for her paper in Sci-Tech held in Amity University on 28th Feb 2018
51. Naman Kamra, Vedant Bajaj, Ritwick D Souza, Saugaat Allabadi, and Shaurya Sood won USD 20,000 in the Hack @The Track 2018, AngelHack conducted during March 7-8, 2018.
52. Jaskanwar Singh (CS), Urvashi Satwani (Chemical), Somil Mathur (CS) and Tushar Agrawal (CS) won the HULT prize in the competition held during March 9-10, 2018.
53. Shaleen Bengani (III CS), Anchit Pandey (III CS), Mohammed Shoaib (II CS) participated in the 8th Gulf Programming Competition held on March 22, 2018 at Zayed University and have secured the first position, with Faculty Coach Dr Sujala D. Shetty. The GPC is a five hour continuous tough and competitive coding competition. This year there were 42 participants from UAE, Saudi, Kuwait and Oman. The students solved the maximum number of questions (6 out of 10) in the shortest time. The students were awarded a trophy by the Vice Chancellor of Zayed University. They were also given a cash price of AED 2000 each.
54. Jaskanwar Singh, Somil Mathur, Jayant Panwar, Tushar Agarwal and Sujith Sizon, won USD 1500 for the best pitch at Autochain at STARTAD, NYU, Abu Dhabi, held on April 16, 2018 at NYU Abu Dhabi.
55. Mihir Prabhudesai, Dev Gupta and Mridul Bhandari, won the Falcon Hack Challenge held between April 20-21, 2018.
56. Two students participated in 6th Undergraduate Research Competition held in Abu Dhabi University, Abu Dhabi on 30-4-2018. The team won the 2nd prize. Winners are Mihir Prabhudesai (III CS) Shaleen Bengani (III CS) with Faculty Advisor: Dr. Siddhaling Urolagin, under the Patronage of H.E. Hussain Ibrahim Al Hammadi, Minister of Education, Abu Dhabi University is organizing the Seventh Undergraduate Research Competition. This competition aims at encouraging universities to promote scientific research among undergraduate students and to make it an integral part of university education. Over 250 research papers presented in 14 parallel tracks submitted by 33 major universities in the UAE. They were given cash prize of AED 2500 for the team.
57. Shaik Afreen Aarza won 3rd prize at Show and Tech 2018 held on May 5, 2018
58. IQPC is one of the biggest event management company in the world. They had recently organized MEN regions biggest AI hackathon. The hack was a 3-day event consisting of 30+ Teams participating in the preliminary round. The event took place from 3rd to 5th September 2018 in Park Hyatt, Dubai and was attended by visionaries from Companies like Microsoft, Accenture, Etisalat, PWC, and Infosys. Two teams from BITS secured prestigious 1st and 3rd place in the finals. Following are their names: 1) First Prize Students: Mihir Prabhudesai, Juzar Gulamali and Dev Gupta, Mentor: Mr. Nand Kumar Prize: Internships at Accenture, DEWA & Goodies 2) Third Prize Students: Ankita Rane, Shivani Sathe & Anandi Sekhar Mentor: Dr. Sujala D. Shetty Prize: Ipad Mini & Goodies from Dubai Municipality
59. Mihir Prabhudesai (CS) and Sarthak Sethi (EEE) won the first prize at Google Developer Group which held a Codathon for Developers of all ages across UAE. The event comprised of solving Algorithmic Challenges for pre-decided tasks ranging from Voice Biometrics to Quantum Cryptography. It was a 2 day coding event in which the team managed to build a Low-Computation Algorithmic Solution for the task of Speaker Recognition. The team was selected amongst 70+ participating teams all across UAE. They were also awarded 25,000 AED Cash Prize by Emirates NBD for their win. November 23-24, 2018.

60. Three of our students Sameeksha Amin (IIIrd CS), Saifali (IIInd CS), Niharika Senthil Kumar (IIInd BIOT) stood first in the Inter Club Debate Contest, a division level toastmasters debate contest which was conducted on 16th November 2018 in American University in the Emirates. There were a total of 18 teams participating, including five star clubs such as ICAT Toastmasters Club, Emirates Toastmasters Club and Friends of Yoga Toastmasters Club. Among the participants were also teams from advanced clubs like Dubai Advanced Toastmasters Club and DIC Advanced Toastmasters Club. All contestants were not only much older than our students but also more experienced toastmasters.
61. Dr. B. G. Prakash Kumar acted as an international advisory committee member for First International Conference on Energy and Environment: Global Challenges (ICEE - 2018), March 9-10, 2018, National Institute of Technology Calicut, India.
62. **Dr. Bharat B. Gulyani was invited to deliver a keynote address "Data Mining Techniques: Applications in Chemical Engineering" at 3<sup>rd</sup> Student Research Colloquium on "Advances in Engineering & IT" on April 11-12, 2018, at the Manipal Academy of Higher Education, Dubai.**
63. Dr. Nishant Pandya invited as session chair at 3<sup>rd</sup> **Student Research Colloquium on "Advances in Engineering & IT" on April 11-12, 2018, at the Manipal Academy of Higher Education, Dubai.**
64. Dr. Eldhose Iype was invited as Session Chair in International Conference on Recent Advances in Fluid & Thermal Sciences (iCRAFT 2018), BITS Pilani, Dubai Campus during December 5-7, 2018.
65. A team of four chemical engineering students (Abinaya, Krishna, Jithin and Sripriya), mentored by Dr. B.G. Prakash Kumar have secured the first runner up position in the category "Vision of the Future" for their proposal of "Black Gold from Vegetable Waste" conducted by the Dubai Municipality, February 8, 2018. A prototype compost bin was developed to reduce our housing ecological footprint.
66. One ongoing project: interdisciplinary project involving four students including one Chemical Engineering student Ms. Anketha Kanna has won the ExpoLive University Innovation Programme (Prize of AED 25,000), Mentor: Dr. Shashank Khurana (Faculty, Mechanical Engineering).
67. Urvashi Satwani is appointed as AIChE Middle East Liaison and later handed the position of Chair of the AIChE Sister Chapter Subcommittee.
68. Four teams were accepted into the final round of the Undergraduate Research Competition (URC), Abu Dhabi.
69. Urvashi Satwani was the member of a team that was Finalists at the Dubai Regionals of the HULT Prize 2018, where the theme was "Harnessing the Power of Energy".
70. **Kartik Math was a prominent member of the BITS Solar Decathlon Team "Efden". They were required to construct a house that uses solar energy as the only energy source and are equipped with all the technologies that permit maximum efficiency. The team placed First in Communications, Second in Engineering and Construction, Second in Comfort Conditions and Third in Sustainability. BPDC along with Romanian University (Team EFdeN) performed very well and secured Overall 4<sup>th</sup> Place in the world.**
71. Graduated Students of batch 2014-2018 were accepted into prestigious institutions around the globe such as TU Delft – Netherlands, University of Melbourne – Australia, University of New South Wales, Sydney – Australia, University of Leeds – England, Durham University – UK, Norwegian University of Science and Technology – Norway, University of Waterloo – Canada, University of Toronto – Canada, University of Alberta – Canada and CAE Oxford Aviation Academy National Flying Training Institute.
72. Graduates of the class of 2014-2018 were placed in companies by the likes of Monaco Engineering Solutions – UAE, Kemipex FZE – UAE, Hydro Middle East – UAE, Fetchr – UAE, Petrofac – Qatar; Ayzuas Group – UAE, Hindustan Petroleum Corporation Limited – India, Captain and Company – UAE and Sika UAE LLC – UAE.
73. Appointed a member of Organizing Committee of 6th World Conference on Applied Science, Engineering and Technology (WCASET-18) held at Goa, India on January 2-3, 2018.
74. Appointed a member of International Advisory Committee of 1st Edition of International Conference on Social Responsibility of Educational Institutions in Developing Countries (ICSEDC – 2018) held during August 24-25, 2018 organized by Ramakrishna Mission Vidyalaya, Coimbatore, Tamil Nadu, India.

**B4.1 SENIOR OFFICERS****DIRECTOR**

Prof. Dr. R. N. Saha

1. Dr. KUMAR KARUPPUSAMY, Associate Dean - Academic – Undergraduate Studies
2. Dr. RAMANUJAM KARTHIKEYAN, Associate Dean - Academic - Graduate Studies and Research
3. Dr. MURALIDHARAN BALADHANDAPANI, Associate Dean - Practice School
4. Dr. PRITI BAJPAI – Associate Dean – Student Welfare
5. Mr. AKSHAY CHUTANI, Assistant Registrar.

(Details are given in Annexure B4-1)

**B4.2 ADMISSIONS**

Admissions were made twice during the year 2018, in January 2018 for the second semester 2017-2018 and in August 2018 for the first semester 2018-2019 (Details are given in Annexure B4-2). The admission summary is given below:

	Integrated First Degree Programmes	Higher Degree Programmes	Doctoral Programmes (Ph.D.)	Total
Second Semester 2017-2018	07(03)	09 (01)	05 (03)	21 (07)
First Semester 2018-2019	295 (96)	26 (07)	10 (07)	331 (110)

Number of female students is given in brackets.

**B4.3 DUAL DEGREES AND TRANSFER**

## (a) Dual Degree

During the academic year 2017-2018, one student registered for two first degrees under Dual degree Scheme. (See Annexure B4-3).

## (b) Transfer

During the academic year 2017-2018, 14 students were permitted to transfer within First degree. (Details are given in Annexure B4-3).

**B4.4 ACADEMIC CALENDAR**

During the Calendar year 2018, the Second Semester 2017-2018 started on 21.01.2018 and ended on 31.05.2018. The First Semester 2018-2019 started on 28.08.2018 and ended on 31.12.2018. The Second Semester 2017-2018 PS II started on 21.01.2018 and ended on 02.07.2018. The Summer Term 2017-18 started on 03.06.2018 and ended on 30.07.2018. Also PS I started on 03.06.2018 and ended on 30.07.2018. The First Semester 2018-2019 PS II started on 01.08.2018 and will end on 03.01.2019.

	Starting Date	Ending Date	Number of Instruction days
Second Semester 2017-2018	21/01/2018	31/05/2018	85
Summer term 2017-2018	03/06/2018	30/07/2018	41
First Semester 2018-2019	28/08/2018	31/12/2018	74

**B4.5 REGISTRATION OF STUDENTS**

The registration for the second semester 2017-18 was held on 21<sup>st</sup> January 2018 and that of the first semester 2018-19 was held on 28<sup>th</sup> August 2018. In on-campus programmes, 1438(532) students were registered in the first semester 2018-2019. Details of registration for the first semester 2018-2019 are given in Annexure B4-4.

	Number of students registered
Second Semester 2017-2018	1557(555)
Summer Term 2017-2018	343(129)
First Semester 2018-2019	1438(532)



**B4.6 ACADEMIC COUNSELING BOARD (ACB)**

During the year 2018, the Academic Counseling Board estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of On-campus students under its purview during the year is given below:

	I Semester 2017- 2018	II Semester 2017- 2018
1. Total number of students under the purview of ACB at the beginning of the semester	96	84
2. No. of students declared out of its purview at the end of the semester	40	14
3. No. of students who left the institute during the semester	04	04
4. No. of students who came under the purview of ACB at the end of the semester	52	66
5. No. of students new students referred to ACB at the end of the semester	32	17
6. Total No. of students under the purview of ACB during the next semester	84	83

**B4.6.1 Academic Counseling Cell (ACC)**

Academic Counseling Cell (ACC) consisting of faculty and Student Counselors facilitates counseling services for students' who need counseling with prior appointment with a counselor. Counseling services are confidential services to the students. Also if necessary, a Professional Counselor (PC) is arranged.

**B4.7 AWARD OF DEGREES AND MEDALS****B4.7.1 Award of Degrees**

During the year 2018, 460 degrees were awarded as given below: Statistical details of these degrees are given in Annexure B4-5, B4-6 and B4-7.

	Number of Degrees Awarded
82 <sup>nd</sup> Award (vide Board of Governors meeting – 01 <sup>st</sup> March 2018)	39(6)
83 <sup>rd</sup> Award (vide Board of Governors meeting – 07 <sup>th</sup> July 2018)	421(133)
<b>Total</b>	<b>460(139)</b>

**B4. 7.2 Award of Medals****(i) Institute Med als for Academic Year 2017 -2018**

List of students for award of medals from amongst the students graduated at the end of first semester, second semester 2017-2018 and summer term 2016- 2017.

S.No.	ID.No.	Name	Sex	CGPA Obtained	Position Obtained	Type of Medal to be Awarded
<b>Integrated First Degree Programmes (No. of students: 368)</b>						
1.	2014A9TS0015U	A KARTHIK VASUDEV	M	10.00	FIRST	GOLD
2.	2014A4PS0109U	VARUN VINAY KOTHARI	M	9.89	SECOND	SILVER
3.	2014AAPS0047U	UPASANA CHAKRABORTY	F	9.89	SECOND	SILVER
4.	2014A4PS0013U	AKSHAY NIRANJAN GIDWANI	M	9.88	THIRD	BRONZE

**(ii) Director's Medals for the Best All Round Achievement**

In addition to the Institute Medals, at Dubai Campus Director's medals are awarded to one male and one female student for the best all-round achievement, in every graduating batch. For the 2018 graduating batch, the Director's medals were awarded to the following students:

S. No.	ID. No.	NAME	SEX
1.	2014A1PS0024U	JITHIN GOPAKUMAR	M
2.	2014AAPS0047U	UPASANA CHAKRABORTY	F

**(iii) DIAC Award for the Best Academic Performance**

The "DIAC Award for the Best Academic Performance" for the universities located in DIAC (Dubai International Academic City) was given to the following students for the year 2018:

S. No.	ID. No.	NAME	SEX	CGPA	DIVISION
<b>First Degree</b>					
1.	2014A9TS0015U	A KARTHIK VASUDEV	M	10.00	DISTINCTION
<b>Higher Degree</b>					
1.	2016K1120002U	ANITH KUMAR R	M	9.78	DISTINCTION

**B4.8 CAMPUS INTERVIEWS AND PLACEMENT**

Efforts were made this year to have more and more industries visit the campus for placement interviews. Despite economic slowdown in Dubai, 118 organisations conducted campus interview and made offers to students (Details are given in Annexure B4-8).

Number of companies which conducted campus interviews	118
No. of students interviewed	345
No. of offers made	124

**Employed / Higher Studies of Graduates during the Year 201 8**

Programme	Number Graduated	Students Registered	Employed/ Higher Studies	Unemployed	Those neither informed nor sought help in placement
<b>On-Campus Programme</b>					
<b>B.E. (Hons.)</b>					
Chemical	46	11	6	5	35
Electrical & Electronics	30	12	9	3	18
Mechanical	137	48	29	19	89
Computer Science	131	63	52	11	68
Electronics & Instrumentation	14	6	3	3	8
Biotechnology	20	2	0	2	18
Electronics & Communication	50	20	13	7	30
<b>Total</b>	<b>428</b>	<b>162</b>	<b>112</b>	<b>50</b>	<b>266</b>

**B4.9 COURSES OFFERED**

The number of courses offered during the year 2018 is as follows:

	Number of courses offered
Second Semester 2017- 2018	219
Summer Term 2017 – 2018	07
First Semester 2018 – 2019	231

**B4.9.1 Project -oriented Courses**

During this year 2018, many students worked on time-bound projects of various types. The information about the projects done and the names of the students who worked on the projects and the names of the instructors are given in Annexure B4-9. A statistical summary is given below:

Sl. No.	Course No.	Course Title	No. of Students	
			II Sem. 2017-18	I Sem. 2018-19
1.	BIOT F266	STUDY PROJECT	5	9
2.	BIOT F366	LABORATORY PROJECT	10	6
3.	BIOT F367	LABORATORY PROJECT	11	6
4.	BIOT F376	DESIGN PROJECT	4	5
5.	BIOT F491	SPECIAL PROJECT	1	1
6.	CE F266	STUDY PROJECT	17	10
7.	CE F366	LABORATORY PROJECT	-	1
8.	CE F376	DESIGN PROJECT	1	-
9.	CE F377	DESIGN PROJECT	-	1
10.	CHE F266	STUDY PROJECT	4	2
11.	CHE F366	LABORATORY PROJECT	4	5
12.	CHE F367	LABORATORY PROJECT	2	-
13.	CHE F376	DESIGN PROJECT	2	2
14.	CHE F377	DESIGN PROJECT	1	-
15.	CHEM F266	STUDY PROJECT	2	2
16.	CHEM F366	LABORATORY PROJECT	2	2
17.	CHEM F377	DESIGN PROJECT	1	-
18.	CS F266	STUDY PROJECT	26	10
19.	CS F366	LABORATORY PROJECT	2	3
20.	CS F376	DESIGN PROJECT	49	33
21.	CS F377	DESIGN PROJECT	6	17
22.	CS F491	SPECIAL PROJECT	6	2
23.	ECE F266	STUDY PROJECT	4	3
24.	ECE F366	LABORATORY PROJECT	3	3
25.	ECE F367	LABORATORY PROJECT	3	-
26.	ECE F376	DESIGN PROJECT	7	9
27.	ECE F377	DESIGN PROJECT	3	4
28.	ECE F491	SPECIAL PROJECTS	-	1
29.	EEE F266	STUDY PROJECT	5	3
30.	EEE F366	LABORATORY PROJECT	1	3
31.	EEE F367	LABORATORY PROJECT	1	1
32.	EEE F376	DESIGN PROJECT	13	8
33.	EEE F377	DESIGN PROJECT	8	4
34.	EEE F491	SPECIAL PROJECT	1	4
35.	GS F266	STUDY PROJECT	5	-
36.	GS F376	DESIGN PROJECT	11	2
37.	GS F377	DESIGN PROJECT	2	-
38.	HSS F266	STUDY PROJECT	18	18
39.	INSTR F266	STUDY PROJECT	1	2

Sl. No.	Course No.	Course Title	No. of Students	
			II Sem. 2017-18	I Sem. 2018-19
40.	INSTR F366	LABORATORY PROJECT	1	1
41.	INSTR F376	DESIGN PROJECT	1	-
42.	INSTR F377	DESIGN PROJECT	1	-
43.	INSTR F491	SPECIAL PROJECT	3	-
44.	MATH F266	STUDY PROJECT	17	9
45.	MATH F366	LABORATORY PROJECT	-	1
46.	MATH F376	DESIGN PROJECT	3	10
47.	ME F266	STUDY PROJECT	19	7
48.	ME F366	LABORATORY PROJECT	14	11
49.	ME F367	LABORATORY PROJECT	9	3
50.	ME F376	DESIGN PROJECT	26	24
51.	ME F377	DESIGN PROJECT	10	7
52.	ME F491	SPECIAL PROJECT	2	1
53.	PHY F266	STUDY PROJECT	-	1
54.	PHY F366	LABORATORY PROJECT	-	2
55.	PHY F376	DESIGN PROJECT	-	1

#### B4.9.2 New courses

During the year 2018, the following new courses were offered.

S.No.	Course No.	Course Name	Enrolled
1	BITS F436	CRYPTOGRAPHY	62
2	CE F312	HYDRAULIC ENGINEERING	17
3	CE F417	APP OF AI IN CIVIL ENGG	14
4	CE F230	CIVIL ENGINEERING MATERIALS	11
5	CE F423	GREEN BUILD & ENER CONSE	13
6	CE F313	FOUNDATION ENGINEERING	16
7	CE F231	FLUID MECHANICS	11
8	CE F311	DES OF CONCRETE STRUCT	17
9	CE F366	LABORATORY PROJECT	1
10	CE F377	DESIGN PROJECT	1
11	EEE G541	DISTRIBUT APPARATUS & CO	4
12	EEE G542	POWER ELECTRONIC CONVERT	5
13	EEE G543	POWER DEVICE MICROELECTR	5
14	HSS F323	ORGANIZATIONAL PSYCHOLOGY	21
15	ME G513	HEATING & COOL OF BUILD	23

## B4.10 INSTITUTIONAL ACTIVITIES

### B4.10.1 Convocation 2018

#### BITS Pilani, Dubai Campus Bids Adieu to the 15th Graduating Batch of Engineers

Amidst great pride and honor, 458 students of the 15th batch of BITS Pilani, Dubai Campus, were awarded Engineering Degrees. The convocation ceremony was conducted at BITS Pilani, Dubai Campus located in the Academic City. The occasion was graced by the Chief Guest, Mr Vipul, Consulate General, Indian Consulate, Dubai.

During this prestigious event, the degrees were conferred on 458 students who graduated with Ph.D, Higher Degree and First Degree in the following disciplines of engineering: Chemical Engineering, Electrical and Electronics, Mechanical Engineering, Computer Science, Electronics and Instrumentation Engineering, Electronics and Communication, Biotechnology, Design Engineering, Microelectronics, Software and M.B.A. Awards for academic excellence and all-round achievement were given to the deserving students.

Hailing BITS Dubai students for winning grants for four innovative projects under EXPO 2020, Mr. Vipul said, **“Students are the best brains on new technologies; therefore, India with its talent pool and UAE with its wonderful work atmosphere that truly encourages entrepreneurship can build confluence in new technologies such as Artificial Intelligence and blockchain.”**

Dr. Kumar Mangalam Birla, Chancellor, BITS Pilani, in his remote address stressed that with the gift of the best of education at BITS, graduates will stay focused and relevant in the VUCA world – a military acronym for volatile, uncertain, complex and ambiguous which is so typical of our world. He motivated the students to become entrepreneurs which is about dreaming big, being adventurous and showing inherent faith in oneself.

Prof. Souvik Bhattacharyya congratulated **all on BITS Pilani being conferred the status of Institute of Eminence. He mentioned that BITS Pilani has been ranked in the World University ranking of both THE (Times Higher Education) and QS (Quacquarelli Symonds).** He also highlighted that Dubai Campus received an award for Strongest Faculty Engagement in EXPO Live University Innovation Program for an impassioned participation from its faculty as academic evaluators.

Prof. Dr. R.N. Saha, congratulated both the graduating students and their parents for this remarkable achievement. He emphasized that the academic programme of BITS Pilani has unique feature of linkage with industries through its Practice School Programmes and research collaborations.

The ceremony concluded solemnly leaving the students in mixed emotions as they bid farewell to their Alma mater and step ahead into their glorious future.

### B4.10.2 Workshops and Conferences

Following workshops were conducted by various departments during the Academic Year 2017-2018

1. Dr.Abdul Rajak, Dr.Jagadish Nayak, Dr.Vilas H Gaidhane, Dr.Raja Muthalagu &Dr.Nilesh Goel of EEE department along with student volunteers conducted a one day workshop for school students on Feb 3rd 2018 from 9 am to 3 pm and the topic was **“Build and Control your own robot”**. The school students were given hands on training of building a Robot from the scratch and controlling a Robot using Arduino board in signal processing and simulation lab.
2. MATLAB workshop was conducted by Dr.V.Kalaichelvi on 1.03.2018 from 4.30 pm to 6 pm in the signal processing and Simulation Lab.
3. For Institution of Engineers Series Workshop, Dr.V.Kalaichelvi has conducted SIMULINK workshop in the Signal Processing and Simulation Lab on March 20th 2018 from 1 pm to 1.50 pm.
4. EEE dept conducted a comprehensive workshop for school children on 28.3.2018. Dr.Abdul Rajak, Dr. Chattopadyay, Dr.Jagadish Nayak, Dr.V. Kalaichelvi, Dr.Swarnalatha, Dr.Vilas, Dr.Shazia & Dr.Sunil Thomas along with AOEE student volunteers have engaged all school students for the demonstration of hands on experiments: Wheel-E: Bluetooth Controlled Arduino based Obstacle Avoidance Robot (Instrumentation Lab); Flashing of LEDs using Arduino (Instrumentation Lab); Side Band Transmission and Reception (Communication Lab); Dancing Lights using IC 74LS74 (DD lab); Testing of ping Sensor using IC555 in Astable Mode (DD Lab); No Load Test on Three Phase Induction Motor (Electrical Machines Lab).
5. Dr. A.B.Chattopadyay, Dr.Abdul Rajak, Dr.Jagadish Nayak, Dr. V.Kalaichelvi, Dr.Swarnalatha Dr.Vilas, Dr Raja Muthalagu, Dr.Sunil Thomas along with student volunteers conducted school students' workshop and the hands on experiments were demonstrated from all EEE labs on 16.04.2018 from 1 pm to 3.40 pm: Wheel-E:Bluetooth Controlled Arduino based Obstacle Avoidance Robot(Instrumentation Lab); Four way Traffic signal using Arduino UNO (Instrumentation Lab); Single Side Band Transmission and Reception (Communication Lab); Lights using IC 74LS74 (DD lab); Testing of ping Sensor using IC555 in Astable Mode (DD Lab); No Load Test on Three Phase Induction Motor (Electrical Machines Lab).

6. The following workshops were conducted in student preparation for job interviews.

Date	Faculty	Topic	Timings
24th March 2018	Dr Shazia Hasan	Digital Electronics and Microprocessors	9.00 am - 10.00 am
	Dr Mary Lourde	Mathematics for Electrical Engineers - A network analysis perspective	10.00 am - 11.00 am
	Dr Jagadish Nayak	Signal and Image Processing Applications	11.00 am - 12.00 pm
31st March 2018	Dr A.B. Chattopadhyay	Applications of Electrical Machines and Drives	9.00 am - 10.00 am
	Dr Gomathi Bhavani	Sustainable Buildings	10.00 am - 11.00 am
	Dr Nilesh Goel	Solar Photovoltaic Systems	11.00 am - 12.00 pm
7th April 2018	Dr R. Swarnalatha	PLC, Conventional & Intelligent Controllers	9.00 am - 10.00 am
	Dr V. Kalaichelvi	Process Control, Neural Networks and Fuzzy Logic for modeling and control	10.00 am - 11.00 am
14th April 2018	Dr Sunil Thomas	Basic Electrical Engineering Concepts	9.00 am - 10.00 am
	Dr Vilas Gaidhane	Analog Electronics	10.00 am - 11.00 am
	Dr Abdul Rajak	Microelectronic Circuits, EM theory, communication Systems	11.00 am - 12.00 pm
17th March 2018	Dr Anand Kumar	Data Analytics	9.00 am -12.00pm
	Dr Anand Kumar/ Dr Raja M	Comp. Networks(CCNA Based)	1.30 pm - 3.30 pm

7. Dr. Anand Kumar, Dr.Jagadish Nayak, Dr.V.Kalaichelvi ,Dr.Vilas , Dr.Raja Muthalagu & Dr.Shazia organized a school students workshop along with student volunteers and the following hands on experiments were demonstrated from EEE department on.17.10.2018 from 1pm to 3.40 pm: Build your own drones (Power Electronics Lab and Signal Processing and Simulation Lab); Single Side Band Transmission and Reception (Communication Lab); Dancing Lights (Instrumentation Lab); Level Process Control (Instrumentation Lab).
8. Dr. Anand Kumar, Dr.Jagadish Nayak, Dr.V.Kalaichelvi, Dr.Vilas, Dr.Raja Muthalagu &Dr.Shazia along with **student volunteers have actively involved for one day workshop conducted for school students on “Build and Control your own robot”** The workshop was conducted in Signal Processing and Simulation Lab on Nov 3rd 2018 (Saturday) from 9 am to 3 pm.
9. Dr. Namita Khanna, Synthetic Biology meets Synthetic Chemistry: In vivo activation of an apo-metalloenzyme using synthetic cofactors. Genome Systems VII at Centre for Genomics and Systems Biology, New York University Abu Dhabi, UAE, 7th- 8th February 2018 (Invited talk)
10. Dr. Neeru Sood, "Microbes for better tomorrow" at the International Conference on Microbes for Better Tomorrow, Dr. D.Y. Patil University, Pune, India, 17th to 19th February 2018 (invited talk)
11. Dr. Mainak Dutta, Deciphering the lipidome: a necessary step towards understanding the complexity of biological systems at Research Institute of Medical & Health Sciences, University of Sharjah, Sharjah, UAE on 14th Feb, 2018 (invited talk)
12. Dr. Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Microbes for Better Tomorrow 2018 during 17th to 19th February 2018 held at Dr. D.Y. Patil University, Pune, India. (Invited talk)
13. Dr .Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Nanotechnology for Human Welfare ( ICNHW-2018) held at H.V. Desai College, Pune, India during 1st to 2nd February 2018.(Invited Talk).

#### B4.11 FACULTY PROFILE

There are 91 Faculty/ Academic staffs in BITS Pilani, Dubai Campus at the end of the first semester 2018-2019. Out of these, 73 are Lecturer and above, and 18 are Lab Instructors and Technical Assistants. Out of these 73 teaching faculty, 69 are Ph.D. holders with several years of teaching experience and 4 have appropriate Master's

Degrees with several years of teaching experience. There are 1 Senior Professor, 17 Professors, 16 Associate Professors, 34 Assistant Professors, 4 Lecturers and 1 Visiting Faculty. There is a constant endeavor to add to the strength of the faculty appropriate to the requirements.

During the year, the teacher – student ratio was 1:20. The faculty has been intensely involved in all the facets of BITS, namely, teaching, research, Practice School, educational administration and institutional development.

#### Some Faculty Statistics

(i)	Percentage of teaching staff (Lecturer & above) possessing Ph. D / made good progress towards Ph.D.	95
(ii)	Percentage of teaching staff working for Ph.D.	5
(iii)	Percentage of teaching staff who participated in Practice School Programme in the year	37

#### Faculty Development Programme

##### Technical contributions from faculty and students

There were a total of 114 contributions which include in 18 international Journals, 43 in various Conferences and 16 Book Chapters Publications. The complete list of research contributions made by the faculty, staff and students is given in Annexures B4-11 and B4-12.

#### B4.12 SPECIAL LECTURES, INVITED LECTURES

Number of eminent scholars and distinguished alumni visited the campus and delivered lectures. Details are given in Annexure B4-10

#### B4.13 INTERNATIONAL / NATIONAL CONFERENCES / WORKSHOPS

Details are given above in B4.10.2.

##### B4.13.1 Invited Lectures/Workshop/Talks by Faculty:

The following faculty participated in Invited Lectures / Workshop /Talks / Panel Discussions / Chairing the session in International Conferences held during the year:

1. Dr.Abdul Rajak, Dr. Jagadish Nayak, Dr.Vilas H Gaidhane, Dr.Raja Muthalagu &Dr.Nilesh Goel of EEE department along with student volunteers conducted a one day workshop for school students on Feb 3rd 2018 from 9 am to 3 pm and the topic was “Build and Control your own robot” . The school students were given hands on training of building a Robot from the scratch and controlling a Robot using Arduino board in signal processing and simulation lab.
2. MATLAB workshop was conducted by Dr.V.Kalaichelvi on 1.03.2018 from 4.30 pm to 6 pm in the signal processing and Simulation Lab.
3. For Institution of Engineers Series Workshop, Dr.V.Kalaichelvi has conducted SIMULINK workshop in the Signal Processing and Simulation Lab on March 20th 2018 from 1 pm to 1.50 pm.
4. EEE dept conducted a comprehensive workshop for school children on 28.3.2018. Dr.Abdul Rajak, Dr. Chattopadhyay, Dr.Jagadish Nayak, Dr.V. Kalaichelvi, Dr.Swarnalatha, Dr.Vilas, Dr.Shazia & Dr.Sunil Thomas along with AOEE student volunteers have engaged all school students for the demonstration of hands on experiments: Wheel-E: Bluetooth Controlled Arduino based Obstacle Avoidance Robot (Instrumentation Lab); Flashing of LEDs using Arduino (Instrumentation Lab); Side Band Transmission and Reception (Communication Lab); Dancing Lights using IC 74LS74 (DD lab); Testing of ping Sensor using IC555 in Astable Mode (DD Lab); No Load Test on Three Phase Induction Motor (Electrical Machines Lab).

Date	Faculty	Topic	Timings
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	Dr Gomathi Bhavani	Sustainable Buildings	10.00 am - 11.00 am
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5. Dr. A.B.Chattopadyay, Dr.Abdul Rajak, Dr.Jagadish Nayak, Dr. V.Kalaichelvi, Dr.Swarnalatha Dr.Vilas, Dr Raja Muthalagu, Dr.Sunil Thomas along with student volunteers conducted school students' workshop and the hands on experiments were demonstrated from all EEE labs on 16.04.2018 from 1 pm to 3.40 pm: Wheel-E:Bluetooth Controlled Arduino based Obstacle Avoidance Robot(Instrumentation Lab); Four way Traffic signal using Arduino UNO (Instrumentation Lab); Single Side Band Transmission and Reception (Communication Lab); Lights using IC 74LS74 (DD lab); Testing of ping Sensor using IC555 in Astable Mode (DD Lab); No Load Test on Three Phase Induction Motor (Electrical Machines Lab).
6. The following workshops were conducted in student preparation for job interviews.
7. Dr. Anand Kumar, Dr.Jagadish Nayak, Dr.V.Kalaichelvi ,Dr.Vilas , Dr.Raja Muthalagu & Dr.Shazia organized a school students workshop along with student volunteers and the following hands on experiments were demonstrated from EEE department on.17.10.2018 from 1pm to 3.40 pm: Build your own drones (Power Electronics Lab and Signal Processing and Simulation Lab); Single Side Band Transmission and Reception (Communication Lab); Dancing Lights (Instrumentation Lab); Level Process Control (Instrumentation Lab).
8. Dr. Anand Kumar, Dr.Jagadish Nayak, Dr.V.Kalaichelvi, Dr.Vilas, Dr.Raja Muthalagu &Dr.Shazia along with **student volunteers have actively involved for one day workshop conducted for school students on "Build and Control your own robot" The workshop was conducted in Signal Processing and Simulation Lab on Nov 3rd 2018 (Saturday) from 9 am to 3 pm.**
9. Dr. Namita Khanna, Synthetic Biology meets Synthetic Chemistry: In vivo activation of an apo-metalloenzyme using synthetic cofactors. Genome Systems VII at Centre for Genomics and Systems Biology, New York University Abu Dhabi, UAE, 7th- 8th February 2018 (Invited talk)
10. Dr. Neeru Sood, "Microbes for better tomorrow" at the International Conference on Microbes for Better Tomorrow, Dr. D.Y. Patil University, Pune, India, 17th to 19th February 2018 (invited talk)
11. Dr. Mainak Dutta, Deciphering the lipidome: a necessary step towards understanding the complexity of biological systems at Research Institute of Medical & Health Sciences, University of Sharjah, Sharjah, UAE on 14th Feb, 2018 (invited talk)



12. Dr. Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Microbes for Better Tomorrow 2018 during 17th to 19th February 2018 held at Dr. D.Y. Patil University, Pune, India. (Invited talk)
13. Dr. Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Nanotechnology for Human Welfare ( ICNHW-2018) held at H.V. Desai College, Pune, India during 1st to 2nd February 2018.(Invited Talk)

A consolidated list of BPDC faculty who participated in International and National Workshops, along with the details is given in Annexure B4-11 and B4-12.

## B4.14 DEPARTMENT-WISE REPORTS

### B4.14.1 Department: Chemical Engineering

Number of faculty members (as on 31<sup>st</sup> December 2018)

Senior Professors, Professors	-
Associate Professors	02
Assistant Professors	03
Lecturers	-
Visiting Faculty	-

Head of the Department : Dr. Nishant Pandya

Contact details : nishant@dubai.bits-pilani.ac.in

Number of PhD Scholars : 01 (Part time)

Ph.D. Thesis Submitted during the year : NIL

#### A. Sponsored Research activities:

- Ongoing projects:
  - Collaborative research project approved under the Seed Grant of BITS Pilani. Topic: "Optimization of Selected High Yield Grass Species for Biomass and Bioenergy Applications Using Saline and Recycled Wastewater", sponsored by BPDC; Value: AED 120,000. ICBA undertaken AED 125,000, worth expenses at ICBA for field studies); Prof. Babu, Department of Forage Crops, Tamil Nadu Agricultural University (TNAU) provide data and samples for fresh water based field studies and support; Faculty members: Dr. S. Ramachandran, PI, BPDC, Dr. Shoaib Ismail, Co-PI, ICBA, Dr. Neeru Sood, Co-PI, BPDC, Dr. Trupti Gokhale, Co-PI, BPDC, Dr. B.G. Prakash Kumar, Co-PI, BPDC, Dr. C. Babu, Co-PI, TNAU, Mr. Khalil Ur Rahman, Co-PI, ICBA, February 2017, duration 3 years.
- Projects sanctioned during the year:
  - Development of Photocatalyst embedded Graphene based membranes for Treatment of Dye containing waste water under sunlight light irradiation, P.I: Dr. Narendra Nath Ghosh (Dept of Chemistry, Goa Campus), Co-P.I.: Dr. Rajib Ghosh Chaudhuri , Team Members: Dr. Amrita Chatterjee, Dr. Mainak Bannerjee, Dr. Anirban Roy, Dr. Sharad Sontakke, Dr. Srinivas Krishnaswamy, Dr. B. G. Prakash Kumar, Dr. Eldhose Iype , ABSTC project, June 2018, duration 3 years, Rs. 52.2 Lac.
  - Bioremediation of Red mud using acidogenic fermentation byproducts and by Biopiling, BITS Pilani Principal Investigator: Dr. Srikanth Mutnuri, Co-investigators: Dr.Vivek R, Dr.Saroj Baral, Dr Sharad Sontakke, Dr Anirban Roy, Dr. Bharat B Gulyani, Dr. Nishant Pandya , Dr Neeru Sood, Dr Trupti Gokhale, BITS Pilani - ABSTC project, June 2018, duration 2 years, Rs. 71.5 Lac.

## 3. Projects completed this year

- Collaborative research project approved under the Research Initiation Grant of BITS Pilani. Topic: Development of Computer Aided Product Design Tool for Mixtures. **PI: Dr. Nishant Pandya**, BITS Pilani, Dubai Campus, Co-I: Prof. (Dr.) Vincent Gerbaud, Director – Research, Université de Toulouse, INP, CNRS, LGC, France. Duration 2 years starting from 13.10.2016. Budget approved: AED 16,000
- PI- Prof. Udo Schwingenschloegl (KAUST); Co-PI: **Dr. Eldhose Iype**; “Investigation of Topley-Smith effect in salt hydrates using hpc”. KAUST Supercomputing Laboratory (KSL), HPC Shaheen access for 50,000 cpu hours, December 2017, duration of 6 months.
- On 15<sup>th</sup> March 2017, the department has signed an MOU with Ocean Corner Water Treatment Equipment & Chemicals LLC to set up a research facility for waste water treatment and testing. Under the agreement, Ocean Corner Water Treatment Equipment & Chemicals LLC will set up a treatment plant and which will be used for research, consultancy and academic purposes.

## B. Publications:

1. **Rajib Ghosh Chaudhuri**, Ashwin Chaturvedi and **Eldhose Iype**, “Visible light active 2D C3N4-CdS hetero-junction photocatalyst for effective removal of azo dye by photodegradation”, *Materials Research Express*, Volume 5, Number 3, Published 9 March 2018
2. Subramanian S C A, Akshai A, Ramachandran S, **Prakash Kumar B G**, " Optimization of macronutrient kinetics for biomass production in *Nostoc calcicola*", *IOP Conf. Series: Materials Science and Engineering* 346 (2018) 012028, *Published online: 1 May 2018*
3. Abinaya Arunachalam, Rajib Ghosh Chaudhuri, Eldhose Iype and B. G. Prakash Kumar, "Modification of date seeds (*Phoenix dactylifera*) using potassium hydroxide for wastewater treatment to remove azo dye", *Water Practice & Technology*, 2018, Vol 13 No 4, p-859-870, December 2018.
4. Eldhose Iype, Zubin Sayeed Ahmed Khalfay, Rajib Ghosh Chaudhuri, B. G. Prakash Kumar. (2018). “Epsomite dehydration: A molecular dynamics study”. *Journal of Energy Storage*. 20. 337-343. 10.1016/j.est.2018.10.005, December 2018.

## C. Conferences attended/papers presented:

1. Abdul Wasee, Rajib Ghosh Chaudhuri, Prakash Kumar, Eldhose Iype. “A study on distance based representation of molecules for statistical learning”. *International Conference on Computational Vision and Bio Inspired Computing*, Coimbatore, India, 29-30 November 2018 (online oral presentation).
2. Taqdees Imitiaz, K. Kumar and B B Gulyani, “Experimental Investigation and Simulation of Convective Heat Transfer in a Solar Still”, *International Conference on Recent Advances in Fluid & Thermal Sciences (iCRAFT 2018)*, BITS Pilani, Dubai Campus, 5-7 Dec 2018 (oral presentation, proceeding page-34).
3. Bharat Gulyani and Nishant Pandya, “On the Similarity of Area Targets and Shells Targets in Heat Exchanger Networks”, *International Conference on Recent Advances in Fluid & Thermal Sciences (iCRAFT 2018)*, BITS Pilani, Dubai Campus, 5-7 Dec 2018 (oral presentation, proceeding page-43).
4. Allan Barbosa, Rajib Ghosh Chaudhuri, Eldhose Iype, Thirumavalavan K, Ramachandran S and B. G. Prakash Kumar, "Bio-Fuels From Vegetable Waste", *International Conference on Recent Advances in Fluid & Thermal Sciences (iCRAFT 2018)*, BITS Pilani, Dubai Campus, 5-7 Dec 2018 (poster presentation, proceeding page-62).
5. Farmeena Zulfikher, Anna Joy, Rajib Ghosh Chaudhuri, Eldhose Iype, and B. G. Prakash Kumar, "A Study On Effect Of Temperature On Total Dissolved Solids In Reverse Osmosis Reject Water", *International Conference on Recent Advances in Fluid & Thermal Sciences (iCRAFT 2018)*, BITS Pilani, Dubai Campus, 5-7 Dec 2018 (poster presentation, proceeding page-29).

## D. Books Published/Edited during the year:

1. Book Chapter: Debkumar Chakraborty, P. Sankar Ganesh, P. C. Suryawanshi, **B. G. Prakash Kumar**, S. Ramachandran, Thermophilic Biomethanation of Food Waste for the Production of Biogas and Concomitant Use of Biogas as a Fuel Supplement for Cooking Chapter 17 In *Bioprocess Engineering for a Green Environment* (2018) ISBN: 9781138035973, May 08, 2018, Routledge, Taylor & Francis.

E. Conferences, seminars & workshops conducted: NIL

F. Invited Talks given by BITS faculty: NIL

G. Invited talks arranged in the department:

- 22<sup>nd</sup> February 2018, Process Plant Health and Safety, Mr. Craig Walker, Regional Head of Health and Safety and Mr. Rodel Quitain, Hazardous Process Waste Management, Lucy Switchgear FZE, Dubai - UAE.
- 17<sup>th</sup> April 2018, Fire Safety Engineering, Mr. Krystof Wolnicki, Fire Engineer, Arup, Dubai - UAE (in association with AOEE and PS Division).
- 18<sup>th</sup> April 2018, Elemental 2D Materials beyond Graphene, Dr. Udo Shwingenschlogl, Professor, Material Science & Engineering, King Abdullah University of Science and Technology (KAUST), Saudi Arabia.
- 26<sup>th</sup> April 2018, Interactive session on Process Design Principles, Mr. Shreyas Patwardhan, R&D Ops Assistant, Reckett Benckiser Arabia, Dubai - UAE.
- 27<sup>th</sup> September 2018, Process Simulation with Honeywell Unisim Design, Mr. Sachin Vaidhya, Software Sales Manager, Honeywell process solutions, Dubai - UAE.
- 15<sup>th</sup> October 2018, How to make a CV, Mr. Christian Cruz, Human Resources Head, TUV Nord Middle East- Member of TUV Nord Group , Dubai - UAE.

H. Awards and recognitions won by faculty and students:

- Dr. B. G. Prakash Kumar acted as an international advisory committee member for First International Conference on Energy and Environment: Global Challenges (ICEE - 2018), 9-10 March 2018, National Institute of Technology Calicut, India.
- Dr. Bharat B. Gulyani was invited to deliver a keynote address "Data Mining Techniques: Applications in Chemical Engineering "** at 3<sup>rd</sup> **Student Research Colloquium on "Advances in Engineering & IT"** on 11<sup>th</sup> & 12<sup>th</sup> April, 2018, at the Manipal Academy of Higher Education, Dubai.
- Dr. Nishant Pandya invited as session chair at 3<sup>rd</sup> Student Research Colloquium on **"Advances in Engineering & IT" on 11<sup>th</sup> & 12<sup>th</sup> April, 2018**, at the Manipal Academy of Higher Education, Dubai.
- Dr. Eldhose Iype was invited as Session Chair in International Conference on Recent Advances in Fluid & Thermal Sciences (iCRAFT 2018), BITS Pilani, Dubai Campus, 5-7 Dec 2018.
- A team of four chemical engineering students (Abinaya, Krishna, Jithin and Sripriya), mentored by Dr. **B.G. Prakash Kumar** have secured the first runner up position in the category **"Vision of the Future"** for their proposal of **"Black Gold from Vegetable Waste"** conducted by the Dubai Municipality, 8<sup>th</sup> February 2018. A prototype compost bin was developed to reduce our housing ecological footprint.
- One ongoing project: interdisciplinary project involving four students including one Chemical Engineering student Ms. Anketha Kanna has won the ExpoLive University Innovation Programme (Prize of AED 25,000), Mentor: Dr. Shashank Khurana (Faculty, Mechanical Engineering).
- Urvashi Satwani is appointed as AIChE Middle East Liaison and later handed the position of Chair of the AIChE Sister Chapter Subcommittee.
- Four teams were accepted into the final round of the Undergraduate Research Competition (URC), Abu Dhabi.
- Urvashi Satwani was the member of a team that was Finalists at the Dubai Regionals of the HULT Prize 2018, where the theme was **"Harnessing the Power of Energy"**.
- Kartik Math** was a prominent member of the BITS Solar Decathlon Team **"Efden"**. They were required to construct a house that uses solar energy as the only energy source and are equipped with all the technologies that permit maximum efficiency. The team placed First in Communications, Second in Engineering and Construction, Second in Comfort Conditions and Third in Sustainability. BPDC along with Romanian University (Team EFdeN) performed very well and secured Overall 4<sup>th</sup> Place in the world.

11. Graduated Students of batch 2014-2018 were accepted into prestigious institutions around the globe such as TU Delft – Netherlands, University of Melbourne – Australia, University of New South Wales, Sydney – Australia, University of Leeds – England, Durham University – UK, Norwegian University of Science and Technology – Norway, University of Waterloo – Canada, University of Toronto – Canada, University of Alberta – Canada and CAE Oxford Aviation Academy National Flying Training Institute.
12. Graduates of the class of 2014-2018 were placed in companies by the likes of Monaco Engineering Solutions – UAE, Kemipex FZE – UAE, Hydro Middle East – UAE, Fetchr – UAE, Petrofac – Qatar; Ayzuas Group – UAE, Hindustan Petroleum Corporation Limited – India, Captain and Company – UAE and Sika UAE LLC – UAE.

**I. Faculty Development, International Collaboration & Industry Immersion:**

- Industry interaction and visit to Star Cement Co. LLC, RAK, Covestro, Dubai and BASF Construction Chemicals, Dubai.

**J. Significant new equipments/experimental facility added during the year:**

The following equipments were procured by the Chemical Engineering Department:

- Hot air oven, Moisture analyzer, Water circulation chiller, Humidifier chamber, Refrigerant air dryer for compressor with pre filter, Novital grain mill, Thermocouples with digital monitor, Weighing balance, Online Gas analyzer.

**K. Departmental Association/Club activities:**

**AIChE (American Institute of Chemical Engineers) Students' chapter BPDC and ChESA – Chemical Engineering Students' Association**

1. 27<sup>th</sup> January 2018: AIChE New Sister Chapter relationship with UC Berkeley
2. 13<sup>th</sup> February 2018: ChESA Alchemist
3. 14<sup>th</sup> February 2018: Junkyard: Poster Making from Waste (part of Enginuity '18)
4. 15<sup>th</sup> February 2018: Intercollegiate Case Study Competition (part of Enginuity '18)
5. 3<sup>rd</sup> March 2018: AIChE New Logo competition
6. 28<sup>th</sup> March 2018: AIChE Internship Panel (4<sup>th</sup> years gave an insight into the day-to-day activities during the internship program PS I & PS II)
7. 3<sup>rd</sup> March 2018: AIChE Virtual Career Fair 2018
8. 5<sup>th</sup> May 2018: Industrial Trip to Star Cement Co. LLC, Ras Al Khaimah
9. 11<sup>th</sup> September 2018: Freshman Orientation (a welcome to the batch of 2018-2022)
10. 26<sup>th</sup> September 2018: ChemFLuence: First Chemical Engineers' Social Meet
11. 25<sup>th</sup> October 2018: Industrial visit to Gulf Petrochem, Hamriya Freezone, Sharjah
12. 24<sup>th</sup> November 2018: Industrial visit to Al Khaleej Sugar Factory, JAFZA, Dubai.

**B4.14.2 Department: Civil Engineering**Number of faculty members (as on 31<sup>st</sup> December 2018)

Senior Professors, Professors	-
Associate Professors	-
Assistant Professors	04
Lecturers	01
Visiting Faculty	-

Head of the Department: Dr.R.Karthikeyan

Contact details: rkarthikeyan@dubai.bits-pilani.ac.in

Number of PhD Scholars: 03

Ph.D. Thesis Submitted during the year: NIL

**A. Sponsored Research activities:**

Total number of Sponsored Projects in the department: 03

- (i) Ongoing projects: NIL
- (ii) Projects sanctioned during the year: 03

G Sridhar (PI), Numerical Modelling of Surcharge Preloading with Vertical Drains, 11-07-2018, RIG - BITS PILANI, DUBAI CAMPUS.

Vivek B (PI), Performance analysis of the port structures incorporating soil structure interaction under earthquake and hydrodynamic force, 29-08-2018, RIG - BITS PILANI, DUBAI CAMPUS.

Meghana Charde (PI), Energy efficient building design for sustainability: A case study in Dubai, November 2018, RIG - BITS PILANI, DUBAI CAMPUS.

- (iii) Projects completed this year: NIL

**B. Publications:**

1. G. Sridhar, R. G. Robinson, K. Rajagopal, Horizontal Coefficient of Consolidation from Inward and Outward Flow Tests, Proceedings of the Institution of Civil Engineers - Ground Improvement, 171(3), 159-166, 2018.
2. M. Raheena, G. Sridhar, R. G. Robinson, Constant Rate of Strain Consolidation Testing using Conventional Fixed Ring Consolidation Cell, Indian Geotechnical Journal, 2018 <https://doi.org/10.1007/s40098-018-0299-1>.

**C. Conferences attended/papers presented:**

1. Charde, M., Gupta, R., Vemuri, A., Thermal Performance Evaluation of Designed Passive Building Elements in Composite Climate: An Experimental Study Ist Latin American Conference on Sustainable Development of Energy, Water and Environment Systems, -Rio de Janeiro, Brazil. 2018 January 28 – 31.
2. Rajendran, N., Charde, M., 2018 Smart Technology used for Active Daylighting Techniques mainly based on Smart Windows, Artificial Lighting and Daylight Harvesting Ist Latin American Conference on Sustainable Development of Energy, Water and Environment Systems, - Rio de Janeiro, Brazil. 2018 January 28 – 31.

D. Books Published/Edited during the year : NIL

E. Conferences, seminars &amp; workshops conducted : NIL

F. Invited Talks given by BITS faculty : NIL

G. Invited talks arranged in the department :

1. Mr. Abin Thomas, Senior Technical Engineer, DNV GL Digital Solutions, An Invited Lecture on 'Offshore engineering: Brief Overview of Practices', 25.11.2018.
2. Mr. Nasser Zuhair Al Yazji, Al Bawadi Road Contracting LLC, An invited lecture on 'Project Planning and Execution for Infrastructure Works', 27/03/18.
3. Jamila El Mir and Ghaith Tibi, Arup Group Ltd, An Invited Lecture on 'Sustainability imbedded in Design', 13.02.2018.

H. Awards & Recognitions Won By Faculty & Students: NIL

I. Faculty Development, International Collaboration & Industry Immersion : NIL

J. Significant new equipments/experimental facility added during the year:

1. Structural analysis software (Bentley's STAAD Pro), Geotechnical modelling software (Plaxis 2D suite) and traffic analysis and forecast software (PTV Visum software) were added to the existing CAD Lab.
2. The new concrete laboratory has been equipped with basic testing equipments.

K. Departmental association/club activities:

1. Freshers Party was held on 10/09/18.
2. Participated in school workshop organized by admissions department

#### B4.14.3 Department: Electrical & Electronics Engineering

Number of faculty members (as on 31st December 2018)

Senior Professors, Professors	03
Associate Professors	03
Assistant Professors	08
Lecturers	00
Visiting Faculty	00
Adjunct Professor	00

Head of the Department : Dr. ANAND KUMAR

Contact details : akumar@dubai.bits-pilani.ac.in

Ph.D. Thesis Submitted during the year : 3

Number of PhD Scholars: (8 Full Time, 3 Part Time and 2 (Thesis Submitted)

Ph.D. Proposal Submitted during the year : 1

A. Sponsored Research activities :

1. Ongoing projects: (inter disciplinary projects)

Seed Grant : Dr. V.Kalaichelvi (Co-PI) & Dr.Vilas (Co-PI)

Title: Design and Development of Closed Loop Control System to improve the Process Capability of Incremental Sheet Metal Forming

2. Projects sanctioned during the year:

- i. Team Power Steppers

**Title of the Project:** Harnessing and Management of energy through innovative mobility services **Student Team Names:** 2015A3PS0148U Jayanti Shyamal, 2016A3PS0212U Shivani Sivakumar , 2017A3PS0258U Muzammil Mohamed Anwar, 2015A3PS0396U Usaid Saud Changan, 2015A3PS161U GULAMALIWALA JUZAR HATIM **Faculty Mentor :** Dr. Gomathi Bhavani The project has been selected to receive an Expo Live grant as a part of University Innovation Programme. The programme received over 500 applications coming from students from over 45 universities in the UAE. Each application was assessed equally by an evaluation body consisting of Expo 2020 Dubai Experts .( Semi final stage – 50 projects, final stage- 35 projects, final grant – 25 projects)**Brief Description :** The solution proposed a unique energy saving methodology for mobile phones while encouraging

UAE citizens and residents to pursue an active lifestyle. A prototype housing the necessary equipment and software for the phone where anyone can charge their phone wirelessly while doing physical activities will be built.

ii. Project Title: ZEER Pot in Green Revolution

**Project Description** : This project aims at creating an alternative to conventional refrigeration and an innovative storage technique for those people for whom refrigeration is either unavailable or unaffordable.

**Project Objectives** : This will reduce the amount of fresh farm produce that gets wasted due to inefficient storage facilities. On the other hand, we also aim at solving several disadvantages associated with conventional refrigeration. One of the major negative aspects of refrigeration is the energy consumption. Refrigeration also leads to loss of moisture from these fruits and vegetables which leads to a decrease in their freshness, nutritional value, taste etc.

**Project outcomes:** The solution we propose targets rural households, roadside vegetable/fruit vendors and small-scale grocery stores. The commercialized end product (deliverable) will be in the form of a cart, fitted with all the above mentioned components.

**Industry where the project will be applicable:** This project has a scope for job opportunities for those people who make these Zeer Pots, carts and for the ones who specialize in manufacturing Solar Water Filters and other electronic components.

Team members:

Students:- Vasudharini, Tanmay, Smrithi, Yashwant, Roshin

Technical Staff:- Mr. M S Thakur

Faculty Mentor:- Dr. Nilesh Goel

iii. Projects completed this year:

- a) Dr Kalaichelvi was Co-PI for **Star Cement Consultation Project on “Development of Mobile Application for Raw Mix and Fuel Cost Optimization.** Duration of the project: 12.07.2017 to 14.08.2018 at Ras Al Khaimah Plant.
- b) Dr Kalaichelvi was Co-PI for **Star Cement Consultation Project on “Development of Computer Application for Prediction of Cement Strength” during May 2018 at Star cements - Ajman Plant.** Duration of the Project: 6 Months.
- c) Consultancy Project with Star Cements Completed: PI: Dr. Shazia Hasan; Co-PI: Dr. Mary Lourde; Title: Harmonic Mitigation Techniques for Cement Industry.
- d) Agency name: EXPO Live; Programme: University Innovation Programme

Project Title: Smart Dustbin

Name of students: Bushra Mahmood, IndraneelPatil, JuzarGulamali, MihirPrabhudesai, NelliSukumarSonavi, ShivaniChelliah

Supervisor: A.R.Abdul Rajak

Amount Sanctioned: AED 25000/-

One of the most daunting issues facing by the world is the mounting waste problem, which impairs public health, pollutes the environment and threatens to drown some poor countries in toxicity. Wastes like plastic should be segregated from other wastes. Thus, they can be sent for recycling. This ensures better utilization of wastes and improved solid waste management system. The Smart Dustbin is based on segregating wastes autonomously at waste collecting point and provide notification to concerned authority when the bin gets full. It is composed of the following subsystems – waste identification, electro mechanical system, notification and power delivery system. It also has a portable support structure for the renewable energy based power system of the bin consisting of a solar panel, inverter and a battery.

**B. Publications:**

1. Devisree, S. and Kumar, A, Fault detection and analysis of bistable rotaxane molecular electronic switch - A simulation approach, *The Journal of Experimental Nanoscience*, Vol 13 (1), pp 144-159, 2018.
2. S. Sinha, Mary Lourde R., T. V. C. Sarma, Hiroyuki Hashiguchi and K. R. Tuckley, Doppler Profile Tracing Using MPCF on MU Radar and Sodar: Performance Analysis, *IEEE Geoscience and Remote Sensing Letters*, Vol 15(4), pp 508-511, 2018.
3. S. Sinha, Mary Lourde R., T. V. C. Sarma, J. S. Pillai and K. R. Tuckley, Spectral Feature-Based Classification of Wind Profiler Power Spectra, *IEEE Transactions on Geoscience and Remote Sensing*, Vol 56(4), pp 2138-2146, 2018.
4. Bibina V C, Upasana Chakraborty, Mary Lourde R, Signal Processing Methods of Diagnosing **Alzheimer's Disease Using EEG** - A Technical Review, *International Journal of Biology and Biomedical Engineering*, North Atlantic University Union, Vol 12, pp 100-113, 2018.
5. Praveen Kumar Reddy Yelampalli, Jagadish Nayak, Vilas Gaidhane Medical image rigid registration using a novel binary feature descriptor and modified affine transform IET Image Processing, Vol 12(3), pp 337-344, 2018.
6. Praveen Kumar Reddy Yelampalli; Jagadish Nayak; Vilas Gaidhane, Daubechies wavelet-based local feature descriptor for multimodal medical image registration, *IET Image Processing*, Vol 12(10), pp 1692-1702, 2018.
7. Praveen Kumar Reddy Yelampalli; Jagadish Nayak; Vilas Gaidhane, A novel feature descriptor for multimodal medical image registration, *IET Image Processing online*, Vol 1, 2018.
8. Ajay Kamath and R. Swarnalatha, Intelligent Parking System using Circle Hough Transform, *Journal of Engineering and Applied Sciences*, Vol 13(13), pp 4981-4986, 2018.
9. Abhishek Anil Mungekar, Yashraj Kalpesh Solanki, R Swarnalatha, Real Time Weather Surveillance via Labview Interfaced Arduino, *International Journal of Engineering and Technology*, Vol 7 (4), pp 2715-2717, 2018.
10. Avani Kirit Mehta, R Swarnalatha, Adopting Padé Approximation for First Order Plus Dead Time Models for Blending Process, *International Journal of Engineering and Technology*, Vol 7(4), pp 2800-2805, 2018.
11. Raja Muthalagu A Survey on Precoding and Decoding Design in MIMO and OFDM Systems, *Journal of Communications*, Vol 13(2), pp 45-59.
12. Raja Muthalagu Transceiver Design for MIMO Systems with Individual Transmit Power Constraints, *Int. Journal of Electrical and computer engineering*, IAES, Vol 8(3), pp 1583-1595.
13. Raja Muthalagu, Rahul Sudheer, and Seyed Ibrahim, FPGA Implementation of Optimized QPSK and OQPSK Using VHDL, *Journal of Communications*, Vol 13(4), pp 182-186.
14. Raja Muthalagu and Subeen Jain, Reducing the time required by KASUMI to generate output by modifying the FL and FI functions, *Iran Journal of Computer Science*, Springer Online, Vol 1, pp 1-8.
15. Raja Muthalagu Non-linear and Non-iterative Based Transceiver Design for SU-MIMO Systems, *Journal of Communications and Information Networks*, Springer, Vol 3(2), pp 14-22.
16. Raja Muthalagu Both the Single user and Multi user MIMO System Design with Individual Transmit Power Constraint and Improper Constellation, *International Journal of Space-Based and Situated Computing*, Inderscience Publishers, Vol 8(2), pp 105-114.
17. Raja Muthalagu, Mitigation of DME Interference in LDACS1 based Future Air-to-Ground (A/G) communications, *Cogent Engineering*, Taylor & Francis, Vol 5(1), pp 16 pages.
18. Raja Muthalagu and Subeen Jain, Modifying the structure KASUMI to improve its resistance towards attacks by inserting FSM and S-Box, *Journal of Cyber Security Technology*, Taylor & Francis, Vol 2(1), pp 37-50.



19. **Aaron D'costa<sup>1</sup>, Abdul Razak, Shazia Hasan, Analysis and comparison of fast multiplier circuits based on different parameters**, International Journal of Engineering & Technology, Vol 7(3), pp 1189-1192.
20. Shazia Hasan, A.B.Chattopadhyay, Mohammed Abdul Jabbar, Sunil Thomas, Steady State Stability Analysis of a CSI-fed synchronous motor drive using Digital modeling, Journal of Mechanics of Continua and Mathematical Sciences, Vol 13(3), pp 69-86.
21. M. Bhuvaneshwari, Dr. Shazia Hasan , Dr. Abdul Razak, Study on soliton pulse and its characteristics for fiber optic communication, International Journal of Engineering & Technology, Vol 7(4), pp 2845-2848.
22. Vilas H Gaidhane and Yogesh V Hote, An efficient edge extraction approach for flame image analysis, Pattern Analysis and Applications (Springer), Vol 21(4), pp 1139-1150.
23. Vilas H. Gaidhane, Y. V. Hote, V. Singh, An efficient similarity measure approach for PCB
24. Surface defect detection, Pattern Analysis and Applications (Springer), Vol 21(1), pp 277-289.
25. Vilas H Gaidhane and Y V Hote, An Improved Approach for Stability Analysis of Discrete System, Journal of Control, Automation and Electrical Systems (Springer), Vol 29(5), pp 535-540.
26. Siddhaling Urologin and Sunil Thomas, 3D Visualization of Sentiment Measures and Sentiment Classification using Combined Classifier for Customer Product Reviews, International Journal of Advanced Computer Science and Applications (IJACSA), Vol 9(5), pp 60-68.
27. Shubhankan Mukherjee , Adhir Baran Chattopadhyay , Sunil Thomas, Electrostatic field theoretic approach to analyze the partial discharge phenomenon pertaining to insulation degradation, International Journal of Engineering & Technology, Vol 7(2), pp 842-848.
28. Sunil Thomas, K. Nithiyananthan, A Novel Method to Implement MPPT Algorithms for PV Panels on a MATLAB/ SIMULINK Environment, Journal of Advanced Research in Dynamical and Control Systems, Vol 10(4), pp 31-40.
29. Thomas, S., Riyan Khan, M., & Chattopadhyay, A., Design and construction of a prototype vertical axis wind turbine (VAWT) for battery charging application, International Journal of Engineering & Technology, Vol 7(2), pp 621-625.
30. Gowrishankar Kasilingam , K.Nithiyananthan , Priyanka Ramesh Mani, Sunil Thomas, GSM based dual power enhanced LED display notice board with motion detector, International Journal of Engineering & Technology, Vol 7(2), pp 559-566.
31. Gowrishankar Kasilingam, K.Nithiyananthan, Sunil Thomas, Wireless integrated-sensor network based subsea tunnel monitoring system Journal of Advanced Research in Dynamical and Control Systems, Vol 10(12), pp 647-658.
32. Sunil Thomas, K Nithiyananthan and Ali Akbar Eski, A Novel Linear Braking Control System for a Separately Excited DC Motor Subjected to Dynamic Braking, Journal of Advanced Research in Dynamical and Control Systems, Vol 10(11), pp 230-238.
33. **"Round the Clock Vehicle Emission Monitoring using IoT for Smart Cities"**, (IJACSA) International Journal of Advanced Computer Science and Applications,, Vol. 9, No. 11, 2018. Page 616-619.

#### C. Conferences attended/papers presented:

1. Upasana Chakraborty, Mary Lourde R, Feature Extraction and Classification of Epileptic EEG signals using Wavelet transforms and Artificial Neural Networks, Springer International conference in International conference in Computational Vision and Bio-engineering ISMAC CVB 2018, pp 1456-1465, May-18.
2. Amrithaa Sheshadri, Mary Lourde R., Enhancement of M51 Image to extract the Spectral Features for **classification of stars using HR diagram**", **International Conference on Communication and Signal Processing ICCSP 2018**, Chennai, India. Elsevier Publication, pp 662 - 666, April 3-5, 2018.

3. Madhurya Kodialbail Divakara and A.R. Abdul Rajak , Throughput analysis in mobile adhoc network: a literature survey, 3rd International Conference on Design, Engineering and Science (ICDES 2018), Barcelona, Spain, February 22-25, 2018.
4. Anne Joshy, R Swarnalatha ,Seyed Ibrahim Ali, Moving Object Detection Using PCA Algorithm, International Conference on ISMAC in Computational Vision and Bio-Engineering (ISMAC -CVB 2018) organized by SCAD Institute of Technology, Palladam, Tamilnadu, 16-17 May, 2018.
5. Swetha Sivakumar and R. Gomathi Bhavani, Image processing based system for intrusion detection and home security enhancement, 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2018), Bangalore , pp 1676- 1680, May 18-19, 2018.
6. Steve Lobo and R.Gomathi Bhavani, Performance and Comparative Analysis of a Medium Sized, Grid Connected Photovoltaic System for Some Locations in the UAE, Proceedings of 2018 IEEE PES Innovative Smart Grid Technologies Asia (ISGT Asia), Singapore, IEEE Power & Energy Society, pp.1215- 1220, May 22- 25, 2018.
7. A. Mir and Vilas H Gaidhane, Deriving energy from far field RF signal, IEEE Proceeding International Conference on Electrical and Computing Technologies and Applications (ICECTA), American University, Ras Al Khaimah, UAE, pp 1-4, 2018.
8. Shamith L Saldanha.,V Kalaichelvi and R Karthikeyan, Prediction Analysis of Weld-Bead and Heat Affected Zone in TIG welding using Artificial Neural Networks , IOP Conf. Series: Materials Science and Engineering, Vol. 346., 012038 doi:10.1088/1757-899X/346/1/012038, pp 1-8, Mar 2018.
9. Don Joe Martin., Aaditya Saraiya.,V.Kalaichelvi., R.Karthikeyan, Vision-Based Forward Kinematics Using ANN for Weld Line Detection with a 5-DOF Robot Manipulator , Advanced Computational and Communication Paradigms Series, Title: Advs in Intelligent Syst., Computing, pp 309-318, Mar 2018.
10. Ketul Patel, Kalaichelvi,V.,Karthikeyan,R.,& Sriparvathi Bhattathiri, Modelling and Simulation of Incremental Sheet Metal Forming Process using CNC Machine Tool, 46th SME North American Manufacturing Research Conference, NAMRC 46, Texas, USA., Procedia Manufacturing ,Vol. 26 95-106, Jul 2018.
11. Srinath Hanumanth Rao., V.Kalaichelvi.,R.Karthikeyan, Real-Time Tracing Of A Weld Line Using Artificial Neural Network, 17th IEEE/ACIS International Conference on Computer and Information Science, ICIS 2018, Singapore, pp 275-280, June 6-8,2018.
12. Ankita Rane, Anand Kumar, Sentiment Classification System of Twitter Data for US Airline Service Analysis, 2018 IEEE 42nd Annual Computer Software and Applications Conference (COMPSAC) , Vol 01, pp 769 - 773 Jul 2018.
13. Saptadeep Debanath, Mary Lourde R., "Design and Development of a Non-Linear Controller for Quadrotor type Unmanned Aerial Vehicle " Proceedings of 3rd IEEE international Conference on Inventive computation Technologies, ICICT '18 Coimbatore India, Nov. 2018, pp. 61-65.
14. Abhishek Anil Mungekar, V.Kalaichelvi and R.Karthikeyan., Intelligent Control Approach for Fluid Power Transmission of a Wind Turbine System, International Conference on Recent Advances in Fluid and Thermal Sciences (ICRAFT2018), BITS Pilani,Dubai Campus ,Dec 5-7, 2018.

**D. Books Published/Edited during the year:** Nil.

**E. Conferences, seminars & workshops conducted**

1. Dr.Abdul Rajak,Dr.Jagadish Nayak, Dr.Vilas H Gaidhane, Dr.Raja Muthalagu &Dr.Nilesh Goel of EEE department along with student volunteers conducted a one day workshop for school students on Feb 3rd 2018 from 9 am to 3 pm and the topic was "Build and Control your own robot" . The school students were given hands on training of building a Robot from the scratch and controlling a Robot using Arduino board in signal processing and simulation lab.
2. MATLAB workshop was conducted by Dr.V.Kalaichelvi on 1.03.2018 from 4.30 pm to 6 pm in the signal processing and Simulation Lab.

3. For Institution of Engineers Series Workshop, Dr.V.Kalaichelvi has conducted SIMULINK workshop in the Signal Processing and Simulation Lab on March 20th 2018 from 1 pm to 1.50 pm.
4. EEE dept conducted a comprehensive workshop for school children on 28.3.2018. Dr.Abdul Rajak, Dr. Chattopadyay, Dr.Jagadish Nayak, Dr.V. Kalaichelvi, Dr.Swarnalatha, Dr.Vilas, Dr.Shazia & Dr.Sunil Thomas along with AOEE student volunteers have engaged all school students for the demonstration of hands on experiments: Wheel-E: Bluetooth Controlled Arduino based Obstacle Avoidance Robot (Instrumentation Lab); Flashing of LEDs using Arduino (Instrumentation Lab); Side Band Transmission and Reception (Communication Lab); Dancing Lights using IC 74LS74 (DD lab); Testing of ping Sensor using IC555 in Astable Mode (DD Lab); No Load Test on Three Phase Induction Motor (Electrical Machines Lab).
5. Dr. A.B.Chattopadyay, Dr.Abdul Rajak, Dr.Jagadish Nayak, Dr. V.Kalaichelvi, Dr.Swarnalatha Dr.Vilas, Dr Raja Muthalagu, Dr.Sunil Thomas along with student volunteers conducted school students' workshop and the hands on experiments were demonstrated from all EEE labs on 16.04.2018 from 1 pm to 3.40 pm: Wheel-E:Bluetooth Controlled Arduino based Obstacle Avoidance Robot(Instrumentation Lab); Four way Traffic signal using Arduino UNO (Instrumentation Lab); Single Side Band Transmission and Reception (Communication Lab); Lights using IC 74LS74 (DD lab); Testing of ping Sensor using IC555 in Astable Mode (DD Lab); No Load Test on Three Phase Induction Motor (Electrical Machines Lab).
6. The following workshops were conducted in student preparation for job interviews.

Date	Faculty	Topic
24th March 2018	Dr Shazia Hasan	Digital Electronics and Microprocessors
	Dr Mary Lourde	Mathematics for Electrical Engineers - A network analysis perspective
	Dr Jagadish Nayak	Signal and Image Processing Applications
31st March 2018	Dr A.B. Chattopadhyay	Applications of Electrical Machines and Drives
	Dr Gomathi Bhavani	Sustainable Buildings
	Dr Nilesh Goel	Solar Photovoltaic Systems
7th April 2018	Dr R. Swarnalatha	PLC, Conventional & Intelligent Controllers
	Dr V. Kalaichelvi	Process Control, Neural Networks and Fuzzy Logic for modeling and control
14th April 2018	Dr Sunil Thomas	Basic Electrical Engineering Concepts
	Dr Vilas Gaidhane	Analog Electronics
	Dr Abdul Rajak	Microelectronic Circuits, EM theory, communication Systems
17th March 2018	Dr Anand Kumar	Data Analytics
	Dr Anand Kumar/Dr Raja M	Comp. Networks(CCNA Based)

7. Dr. Anand Kumar, Dr.Jagadish Nayak, Dr.V.Kalaichelvi, Dr.Vilas, Dr.Raja Muthalagu & Dr.Shazia organized a school students workshop along with student volunteers and the following hands on experiments were demonstrated from EEE department on 17.10.2018 from 1pm to 3.40 pm: Build your own drones (Power Electronics Lab and Signal Processing and Simulation Lab); Single Side Band Transmission and Reception (Communication Lab); Dancing Lights (Instrumentation Lab); Level Process Control (Instrumentation Lab).
8. Dr. Anand Kumar, Dr.Jagadish Nayak, Dr.V.Kalaichelvi, Dr.Vilas, Dr.Raja Muthalagu & Dr.Shazia along with **student volunteers have actively involved for one day workshop conducted for school students on "Build and Control your own robot"** The workshop was conducted in Signal Processing and Simulation Lab on Nov 3rd 2018 (Saturday) from 9 am to 3 pm.

F. Invited Talks given by faculty: Nil.

G. Invited talks / technical visits arranged by the department:

1. Dr Chandra Shekhar, Sr Professor from BITS, Pilani, Pilani Campus, VLSI design principles and recent trends, 28.01.18.

2. Mr. Krishna RS, EEE Engineer, Al Ghandi Electronics, External Talk about Illumination Engineering, 03.04.18.
3. Mr. Krzysztof Wolnicki from Arup Middle East, Fire Safety Engineering, 17.04.18.
4. Mr Mohammed Abdul Bari, Air Accident Investigator from General Civil Aviation, Investigation of Electrical, Electronics, Instrumentation & Communications Systems in an Aircraft Accident, 03.05.18.
5. Mr. Bharath Kamath, Abbott Laboratories, Clinical utility of Point of Care Analyzer in Healthcare setup, 18.10.18.
6. **Mr. Eoin O'Loughlin from Arup Middle East, Fire Safety Engineering, 30.10.18.**
7. Arranged Interactive Session with Company People at Star Cements Ajman Plant on 19th November 2018 from 11am to 12 Noon for M.E Electrical Engg program.

#### H. Awards and recognitions won by faculty and students

1. Dr.V.Kalaichelvi reviewed two papers for International Conference on Recent Advances in Fluid and Thermal Sciences (ICRAFT 2018) organized by Mechanical Engg Dept at our Campus (5th-7th December 2018) and details are given below:
  - a) Design, Simulation and Implementation of a single phase shunt active filter, interfacing a PV system to the distribution grid.
  - b) Performance prediction of Savonius Wind Turbine using adaptive neuro-based fuzzy inference system (ANFIS).
2. Team IFOR won the Robotics and Electronics category at Innovator Show 2018 in Abu Dhabi. Their proposal was a Fog prevention system using an autonomous VTOL drone. After winning the Innovator we were featured in Gulf News and various news and media entities visited us and our lab at Bits Pilani. IFOR covered in Gulf News: <http://m.gulfnews.com/news/uae/society/uae-students-build-drone%20that-clers-fog-1.2167010>. The participants are : Suhail (2016A3PS0172U) EEE; Mishika (2016A7PS0261U) CS; Ashlyn D'Souza (2016A7PS0003U) CS; Rifah Mohamed (2016A7PS211U) CS; Parv Khandelwal (2015A7PS0265U) CS; Sarthak Bhooshan (2015A7PS0323U) CS; Anudeepsekhar Bolimera(2014AAPS0115U) ECE; Adithya Pradeep Nair (2016A4PS0254U) Mechanical; Saptadeep Debnath (2014AATS0061U) ECE. Dr Kalaichelvi is the faculty mentor.
3. BPDC, in collaboration with three renowned Romanian universities showcased their design of fully solar powered energy efficient house at the Solar Decathlon Middle East 2018 at the Mohammed Bin Rashid Al Maktoum solar park from 14 - 29 November 2018. The team won an impressive fourth place from among the international teams participated, notably first in Communication context, second in Engineering and Construction, second in Comfort Conditions, third in Sustainability and fourth in Energy Efficiency. Dr Gomathi Bhavani was one of the faculty mentors.
4. Dr Gomathi Bhavani reviewed the following papers for iCRAFT2018 (International Conference on Recent Advances in Fluid and Thermal Sciences) : **"Intelligent Control Approach for Fluid Power Transmission of a Wind Turbine System"** and **"Design, Simulation and Implementation of a single phase shunt active filter, interfacing a PV system to the distribution grid"**.
5. Dr. Mary Lourde has been a reviewer for IEEE Transactions on Reliability and reviewed a manuscript in the area of state estimation of unmanned aerial vehicle over IoT network.
6. Dr. Mary Lourde has been a reviewer for Elsevier journal of "Microprocessors and microsystems" and reviewed a manuscript on reversible ALU design.

#### I. Faculty Development, International Collaboration & Industry Immersion

Name of the faculty members (PI/Co PI)	Title of the projects	Date applied	Funding Agency
Dr. Vilas Haridas Gaidhane/ Prof Anand Kumar	Prospects of satellite imaginary for pest and disease monitoring of cereal crop plants	11/14/2018	Bill & Melinda Gates Foundation
Dr. R Swarnalatha	Drone Based Image Capturing and Analysis of Pests in Various Plants	11/14/2018	Bill & Melinda Gates Foundation

Name of the faculty members (PI/Co PI)	Title of the projects	Date applied	Funding Agency
Prof. Muthuchidambaranathan. /Dr. Raja Muthalgu	Cognitive Radio Concept in Future Air-to-Ground (A/G) communication	6/1/2018	MHRD-DST joint initiative "IMPRINT-2"
Dr.R.Karthikeyan(PI)/Dr.V.Kalaichelvi(Co-PI)/Dr.Sujala Shetty(Co-PI)	Dynamic Control of the Robotic Arm and a CNC Milling Machine through Sensor Fusion, Feedback Control and Internet of Things.	10/27/2018	ABSTCL
PI: Dr Shazia Hasan Co-PI: Dr Anand Kumar	Multirobotic system for Smart Inventory Management System: Industrial Warehouse Automation	10/27/2018	ABSTCL
PI: Dr Shazia Hasan Co-PI: Dr Anand Kumar	Block chain based Multirobotic system for Smart Inventory Management: Industrial Warehouse Automation	10/27/2018	ABSTCL

**J. Significant new equipments/experimental facility added during the year :**

- 1 The following equipment's are purchased to update the old equipment in the Communication system Lab
- 2 DS1102E 100 Mhz 2 Channel Digital Oscilloscope
- 3 AM-550 7- TRANSISTOR SUPERHET AM RADIO KIT
- 4 AM/FM108 AM/FM RADIO KIT AND TRAINING COURSE
- 5 Scientech 2201 DSB/SSB AM Transmitter
- 6 Scientech 2202 DSB/SSB AM Receiver
- 7 Scientech 2803 Delta Modulation kit

**K. Departmental Association/Club activities:**

**TEAM IFOR activities**

- 1 International Aerial Robotics Competition – Mission 7 Team IFOR took part in IARC 2017 organized in Georgia. The team had designed and presented a fully autonomous drone capable of mapping and navigating through an unknown indoor environment. In 2018, all the processing is done on an onboard Nvidia Jetson TX2 computer. The UAV runs custom navigation, optical flow and various other image processing algorithms. It is equipped with a variety of onboard instruments; LiDARs and stereo camera to name a few. The team continues to develop this cutting-edge technology under the guidance of Dr. V.Kalaichelvi.
- 2 Team IFOR presented their achievements during Global Millenium conference 2018 from 8A.M to 4P.M on Jan 27th 2018 where Principals from leading Schools in India & UAE are invited. The team also demonstrated drone flying and IARC simulation videos during this event.
- 3 Team IFOR students Mr. Anudeep & Mr.Suhail demonstrated their drones for the school students workshop conducted on 28.03.2018 from 1 pm to 3.40 pm.
- 4 Team IFOR participated in the Innovator Show 2018 and won the Robotics and Electronics category at Innovator Show 2018 in Abu Dhabi. It was one among the handful of sophisticated projects that we took for the competition. Our proposal was a Fog prevention system using an autonomous VTOL drone. After winning the Innovator we were featured in Gulf News and various news and media entities visited us and our lab at Bits Pilani. IFOR covered in Gulf News: <http://m.gulfnews.com/news/uae/society/uae-students-build-drone%20that-clers-fog-1.2167010>.
- 5 Khalifa University Professors Dr. Hamad Karki Faculty Mechanical Engg. & Dr. Amit Shukla., Research Associate., Mechanical Engg visited IFOR lab and interacted with Mr.Suhail and Mr.Anudeep and Mr.Suhail explained about all IFOR related projects on 15.10.2018.
- 6 Team IFOR took the initiative to organize ZEUS – An FPV (First Person View) drone racing competition in collaboration with UAE FPV, an organization famous for hosting drone racing competitions in the UAE.

The competition gathered participants from over 8 countries and even a Russian world champion. Test runs were conducted but due to DCAA regulations Team IFOR students were unable to conduct the final event.

#### AOEE Activities

1. Organised a Guest Lecture by Dr Chandra Shekhar, Sr Professor from BITS,Pilani, Pilani Campus on "VLSI design principles and Recent trends" on 28.01.18.
2. Organised the technical event Mindspark for "Enginuity" from 13.02.18 to 15.02.18.
3. Organised an industrial visit to "Emirates Transformers and Switchgear" for EEE dept on 14.03.18.
4. Organized a workshop by Dr A R Abdul Razak on "PSPICE" on 31st March 2018.
5. Organised a Guest Lecture by Mr. Krishna RS, EEE Engineer, Al Ghandi Electronics on "External Talk about Illumination Engineering" on 03.04.18.
6. Organised a Guest Lecture by Mr. Krzysztof Wolnicki from Arup Middle East on "Fire Safety Engineering" on 17.04.18.
7. Organised a Guest Lecture by Mr Mohammed Abdul Bari, Air Accident Investigator from General Civil Aviation Authority on "Investigation of Electrical, Electronics, Instrumentation & Communications Systems in an Aircraft Accident" on 03.05.18.
8. Organised a Guest Lecture by Mr. Bharath Kamath from Abbott Laboratories on "Clinical utility of Point of Care Analyzer in Healthcare setup" on 18.10.18.
9. Organised a Guest Lecture by Mr. Eoin O'Loughlin from Arup Middle Easton "Fire Safety Engineering" on 30.10.18.
10. Organised the technical cum fun event "Volsted in" on 01.11.18.
11. Organised a Guest Lecture by Prof. Biswa Nath Datta from Northern Illinois Universityon "Computational and Optimization Methods for Active Vibration Control and Finite Element Model Updating in Structural Dynamics -Linking Mathematics to Engineering" on 04.12.18

#### IEEE Activities

1. Organized Control System Hackathon
2. Organized Infographics Contest
3. Organized Talk By Anand Swaminathan
4. Organized A Mobile Photography Contest -Photon

**B4.14.4 Department: Mechanical Engineering**

Number of faculty members (as on 31st December 2018)

Senior Professors, Professors	03
Associate Professors	01
Assistant Professors	05
Lecturers	-
Visiting Faculty	-

**Head of the Department:** Dr.R.Karthikeyan**Contact details:** rkarthikeyan@dubai.bits-pilani.ac.in**Number of PhD Scholars :** 07**Ph.D. Thesis Submitted during the year:** 01**A.Sponsored Research activities:**

Total number of Sponsored Projects in the department:

- (i) Ongoing projects: NIL
- (ii) Projects sanctioned during the year: NIL
- (iii) Projects completed this year: 03 (2 MECH/EEE/CS and 1 MECH)

FUNDING AGENCY: STAR CEMENTS, LLC, RAK, UAE

**B. Publications:**

1. Nandakumar Pillai, R. Karthikeyan and J. Paulo Davim, Heat treatment effects on tribological characteristics for AISI A8 tool steel and development of wear mechanism maps using K means clustering and neural networks, Tribology - Materials Surfaces & Interfaces, 12
2. N. Pillai, R Karthikeyan, S. Kannan, S.Vincent, Effect of Cryogenic treatment on VIKING cold working tool steel and development of wear mechanism maps, Procedia Manufacturing, 26, 329-342
3. Shashank Khurana, Kojiro Suzuki and Ethirajan Rathakrishnan, Simultaneous Control of Vortex-Sizes around Spike Root and Body Base for a Blunt-Nosed Cylindrical Body, International Review of Aerospace Engineering, 11, 176-185
4. Sundar. K, R. Udayakumar and Shashank Khurana, Experimental Investigations On Emissions Characteristics Of A Variable Compression Ratio Engine Operated On Dual Fuel Mode Using Diesel And Biodiesel (Obtained From Cotton Seed Oil And Rice Bran Oil), Journal of Mechanical Engineering Research and Developments, 41, 59-66
5. Naveen K. Shrivastava, Rajkumar B. Chadge, Pritam Ahire, Jayant P. Giri., Experimental investigation of a passive direct ethanol fuel cell, Ionics, In press

**C. Conferences attended/papers presented:**

1. Nandakumar Pillai and R Karthikeyan, Effect of Deep Cryogenic treatment on AISI A8 Tool steel & Development of Wear Mechanism maps using Fuzzy Clustering, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.
2. W Qureshi, S Kannan, S Vincent, N N Eddine, A Muhammed, M Gupta, R. Karthikeyan and V Badari
3. Influence of silica nanospheres on corrosion behavior of magnesium matrix syntactic foam, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.

4. Cherish Mani, R Karthikeyan and S Vincent, A study on corrosion resistance of dissimilar welds between Monel 400 and 316L austenitic stainless steel , International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.
5. Shamith L Saldanha, V Kalaichelvi and R Karthikeyan, Prediction Analysis of Weld-Bead and Heat Affected Zone in TIG welding using Artificial Neural Networks, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.
6. S Kannan, S Pervaiz, S. Vincent and R. Karthikeyan, Tool life and surface integrity aspects when drilling nickel alloy, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346 BITS Dubai Campus, Nov 2017.
7. S Bojanampati, R Karthikeyan, MD Islam and S Venugopal, Comparative study of manufacturing condyle implant using rapid prototyping and CNC machining, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.
8. Nandakumar Pillai and Dr. R Karthikeyan, Prediction of ttt curves of cold working tool steels using support vector machine model International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.
9. M C Subin, Jason Savio Lourence, R Karthikeyan and C Periasamy, Analysis of materials used for Greenhouse roof covering - structure using CFD, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.
10. Kesar Mal Kothari, Vishweshwar Samba, Kinza Tania, Dr R Udayakumar and Dr Ram Karthikeyan AUTOMATION OF UNDERGROUND CABLE LAYING EQUIPMENT USING PLC AND HMI, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 2018, V346, BITS Dubai Campus, Nov 2017.
11. Akshay Gidwani and Siddanth James, R. Karthikeyan, S. Vincent, Effect of Entropy Generation on Wear Mechanics and System Reliability, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science and Engineering, 346 (2018) 012076, BITS Dubai Campus, Nov 2017.
12. Shresh Kumar, Rebin Anwar, Wookha Ryu, E. S. Park, and S. Vincent, Biocorrosion Evaluation on a Zr-Cu-Ag-Ti Metallic Glass, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science & Engineering 346 (2018) 012009, BITS Dubai Campus, Nov 2017.
13. Kiran Thomas, S. Vincent, Dipika Barbadikar, Rebin Anwar, Nevil Fernandes, Shresh Kumar, Corrosion Characterisation In Incoloy 925 And 110 Ksi Low Alloy Steel, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science & Engineering 346 (2018) 012010, BITS Dubai Campus, Nov 2017.
14. Dipika R. Barbadikar, S. Vincent, A.R. Ballal, D.R. Peshwe, and M.D. Mathew, Optimization of BI test parameters to investigate mechanical properties of P92 steel, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conference Series: Materials Science & Engineering 346 (2018) 012069, BITS Dubai Campus, Nov 2017.
15. Mukesh Tomar, Shashank Khurana and R Singh, Road tunnel fires and tunnel lining material, International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017, IOP Conf. Series: Materials Science and Engineering, 346 (2018) 012077, BITS Dubai Campus, Nov 2017.



**D. Books Published/Edited during the year:**

1. Innovative Design, Analysis and Development practices in Aerospace and Automotive Engineering
2. ISBN-978-981-13-27179, Jasjeev singh, MVN Sankaram and Sachin Salunkhe, Authors of chapter on 'Formula SAE Power increment', Springer, Feb. 2018

**E. Conferences, seminars & workshops conducted: 01**

International conference on Recent Advances in Fluid and Thermal Sciences 2018 (iCRAFT2018), Dec 5-7, 2018 (Dr Shashank Khurana, Dr R Udayakumar and Dr MVN Sankaram)

BITS Pilani, Dubai campus invites delegates from academia and industry to be a part of two days of International Conference on Recent Advances in Fluid and Thermal Sciences (iCRAFT 2018), which started from 5th December 2018 and ended on 7th December at their Dubai Campus.

The conference aimed to bring together the leading academic scientists, researchers and research scholars to exchange and share their experiences and research results about all aspects of Mechanical Engineering. It also provides the premier interdisciplinary forum for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns, practical challenges encountered and the solution adopted in the field of Mechanical Engineering. The Conference covered various topics of interest including Bluff Body and High-speed Flows, Microscale Transport, Hydraulics and Turbomachinery, Conduction and Convection, Renewable Energy, Alternate Fuels and Sustainability.

Over the course of 3 days, 5 Speakers of Eminence marked their presence, together with the presentation of 76 technical papers and 22 Posters, by delegates from key universities of USA, UAE, India, Russia, Saudi Arabia, and South Africa, with an overall participation of more than 120 delegates.

**F. Invited Talks given by BITS faculty: NIL****G. Invited talks arranged in the department:**

1. Dr Hamad Karki & Dr Amit Shukla, Khalifa University, Abudhabi, Robotics and Smart Sensing in Oil and Gas Industry, 15.10.2018.
2. Prof. Raynald Gauvin, McGill University, Canada. , Scanning Transmission Electron Microscopy (STEM), 14.08.2018.
3. Mr. Khaled, ARUP, Dubai, Building Services, 30.10.2018.
4. Dr.Nahar, President, Desert Science Institute, Jodhpur, India, Solar Energy Applications 19-11-2018.
5. Prof. Debjyoti Banerjee from Texas A & M University, USA, Cheap Nano-Manufacturing Technique (Additives) for Clean Energy, 09-07-2018

**H. Awards & Recognitions Won By Faculty & Students**

1. Team Trepit consists of 5 BPDC mechanical students namely Mohamed Nawaz Muallim, Tarun Krishna Jayachandran, Pranay Addepalli, Harsith Rani Ashokkumar and Adhitya Natrajan from BITS Pilani, Dubai Campus has won a spot at Intelak Aviation & Travel Incubator for their cohort 3 program alongside a seed fund of AED 50,000/-. The event held on 22nd January 2018 Led by the Emirates Group, GE, and Dubai Tourism, Intelak is a hub that will inspire and develop teams to become part of the conversation in travel and aviation industry. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
2. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize of \$ 4000 in the IOT + Smart Cities category and Second Prize of \$ 5000 in Big Battles category in Seaside Startup Summit organized by RAK incubation and accelerator held from 8th to 12th February 2018, attracted 500 participants, 300 startup owners and 50 investors. His Highness Sheikh Saud Bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras - Al Khaimah inaugurated the event. AutoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and seller. The team was featured in Ajman FM and Armenian TV. Team AutoChain advised by Dr Sankaram, Mechanical department, BPDC and Dr Santoshkumar, CSE department, BPDC.
3. BPDC team got shortlisted from the first SOLAR DECATHLON MIDDLE EAST to participate in SECOND SOLAR DECATHLON MIDDLE EAST (SDME) to be held in November 2018 and in 2020. On 30th April 2018,

the announcement was made at the Second International Workshop, which Dubai Water and Electricity Authority (DEWA) organised for the 21 teams from 36 universities in 15 countries participating in the first competition. The team is mentored by Dr. Vincent Shantha kumar, Dr. Shashank Khurana and Dr. Gomathi Bhavani

4. BPDC Students Anchit Pandey (4th Year CS), Vrushali Patil (3rd Year ECE), Sultan Morbiwala (4th Year Mechanical), Satyarth Vaidya (4th Year CS) and Sejal Chopra (4th Year CS) has won the third Prize and Cash award of INR 2000 for their Project titled "Drone-based Smart Oil Spill Reduction and Containment" in the CSIR-CEERI's Technology Innovation Event 2018 held on 28th September 2018 at CSIR CEERI Pilani, India.
5. NaviFly, a start up led by me, Yashodhan Naik, a student of BITS Pilani Dubai Campus, have been selected amongst the top 20 teams in the world to Pitch at Propeller Shannon, Ireland. It is a aviation accelerator which has world re-known partners like Boeing, Datalex, IAA & many others. On 20th November 2018, the NaviFly representatives Yashodhan Naik and Shivank Gupta leave to Ireland to showcase their disruptive innovation. Recently, the women entrepreneurs from the NaviFly team (Aeronyx) recently secured 2nd place in Techstars Women's Start-Up Weekend, 2018, the first women's startup in the middle east. The team is mentored by Dr. Vincent Shantha Kumar
6. BPDC along with Romanian University (Team EFdeN) participated in the finals of SDME 2018. Won numerous awards throughout the competition, and placed well in nearly every contest:
  - 1st in Communication
  - 2nd in Engineering and Construction
  - 2nd in Comfort Conditions o 3rd in Sustainability
  - 4th in Energy Efficiency - also placed 3rd for innovations in energy efficiency (sub-contest)
  - 4th in Sustainable Transportation
  - 4th in House Functioning
  - 6th in Architecture
  - 2nd in the People Choice Awards, with 8923 votes (special category, no points)
  - Placed 4th overall in the world. Was in 1st place for nearly 90% of the competition period o Won 879.47 points overall, out of a total possible 1000.

The team is mentored by Dr. Vincent Shantha kumar, Dr. Shashank Khurana and Dr. Gomathi Bhavani

7. **Team "Glass Microspehre Filled Polymer Composites"** participated in **Expo 2020 University Innovation Programme (UIP)** and secured funding of AED 50,000. More than 500 student groups from 57 universities **across the UAE submitted applications as part of the UIP's second cycle out of which only 35 reached to the second round.** The final stage of evaluation took place on Saturday November 24th 2018 at Expo 2020 main office in Dubai where our students pitched the idea in 5 minutes and impressed the judges to secure a place in the top teams to be funded. The students worked with Dr. Priyank, Assistant Professor, Mechanical Engineering, BPDC.

#### I. Faculty Development, International Collaboration & Industry Immersion:

1. Dr. Vincent initiated collaboration with Prof Manoj Gupta, National University of Singapore (NUS) and one student (Mr. Shresh Mathur) is doing Off-campus thesis from Aug - Dec, 2018 in NUS.
2. Dr. Vincent initiated collaboration with Prof. Raynald Gauvin, McGill University, Canada and as a result one student will be doing Off-campus thesis at McGill University in next semester

#### J. Significant new equipments/experimental facility added during the year:

1. RICARDO software for combustion analysis
2. Abaqus FEA research license for finite element analysis
3. AVL emission tester for diesel engine
4. JYOTI CNC Lathe

**K. Departmental association/club activities:****(i) ASME Student Chapter**

1. Mr. Pir Akram, Proto21, Dubai, Demystifying Additive Manufacturing, organized by ASME, BPDC Student Section 21.10.2018
2. Organized Building Bio-dome workshop for 3 days in which around 20 students attended

**(ii) SAE Student Chapter**

5th Gear Automotive day is hosted by BlackHawks Motorsports the official BAJA-SAE International Team of BITS Pilani, Dubai Campus along with university gaming partner of the event, The Guild on the 21st and 22nd of November.

\*August 2018 - Orientation for fresher's to know more about BAJA SAE competition and Formula SAE competition.

- second week : Interview was hosted by core members of BlackHawks and selections of members were made based on motivation and interest in Design field, production field, marketing field.

\*Weekly training.: Most Saturdays, BlackHawks team had meetings to train fresher's on the basics of Design Software Solid works.

-Training for sponsorship team to contact companies were given.

-Logistics team was given a basic understanding of logistics network and how to see each network finding the most effective path to the least effective path.

-Compliance team was given tasks to learn the rule book. Basic understanding of importance of quality was given to juniors and how important quality is when it comes to manufacturing.

-Importance of project management was given.

-tried to teach and learn Advanced Product Quality Planning Process which failed due to lack of knowledge in the field.

\*FIFTH gear automotive day a two day event was conducted on November with the aim of raising funds for team BlackHawks. It was a tie up event with the official gaming club in college The Guild and MEA.

**(iii) Mechanical Engineering Association**

1. Talk on Advanced Welding Research - 26th March 2018
2. **Engineer's Day Event** - 16th September 2018
3. Organized invited talk on Robotics and Smart Sensing in the Oil & Gas Industry - 15th October 2018
4. Organized invited talk on Fire Safety Engineering - 30th October 2018
5. Organized invited talk on Building Services - 30th October 2018

**B4.14.5. Department: Computer Science**

Number of faculty members (as on 31<sup>st</sup> December 2018)

Senior Professors, Professors	02
Associate Professors	00
Assistant Professors	04
Lecturers	03
Visiting Faculty	00
Adjunct Professor	00

**Head of the Department:** Dr. Sujala D. Shetty

**Contact details:** sujala@dubai.bits-pilani.ac.in

**Ph.D. Thesis Submitted during the year:** NIL

**Number of PhD Scholars :** (8 Full Time, 2 Part Time and - Off campus)

**Ph.D. Proposal Submitted during the year:** NIL

**A. Sponsored Research activities: NIL**

**B. Publications:**

1. Alina Zaidi, Siddhaling Urolagin, "Worldwide Gross Revenue Prediction for Bollywood Movies using Hybrid Ensemble Model" Accepted in Int. J. of Business Intelligence and Data Mining, 2018. Index: Elsevier Scopus.
2. Siddhaling Urolagin, "Sentiment Analysis, Visualization and Classification of Summarized News Articles: A Novel Approach" in International Journal of Advanced Computer Science and Applications (IJACSA), Volume 9 Issue 8, pp. 616-625, August, 2018, Index: Web of Science, Scopus.
3. Siddhaling Urolagin, Sunil Thomas, "3D Visualization of Sentiment Measures and Sentiment Classification using Combined Classifier for Customer Product Reviews", International Journal of Advanced Computer Science and Applications (IJACSA), Volume 9 Issue 5, pp. 60-68, June, 2018. Index: Web of Science, Scopus.
4. Rida Khan, Siddhaling Urolagin, "Airline Sentiment Visualization, Consumer Loyalty Measurement and Prediction Using Twitter Data", in International Journal of Advanced Computer Science and Applications (IJACSA), volume 9, issue 6, pp. 380-388, 2018. Index: Web of Science, Scopus.
5. Yang Yang, Siddhaling Urolagin, Abhishek Niroula, Xuesong Ding, Bairong Shen and Mauno Vihinen, "PON-tstab: Protein Variant Stability Predictor. Importance of Training Data Quality", in International Journal of Molecular Sciences, 19(4), March, 2018. Impact Factor 3.22, Index: Science Citation Indexed, Scopus, Web of Science.
6. **Praseetha and S.Vadivel , "Deep Learning models for Speech Emotion Recognition", published in Journal of computer science, NOV 2018, 14 (11): 1577-1587 (scopus indexed journal)**
7. Milu Mary Philip, Vaibhav Shah and Vijayakumar , Estimation and Generation of Software Architectural Specification to Handle Variation Points, International Journal of Software Engineering and Knowledge Engineering Vol. 28, No. 10 (2018), World Scientific Publishing Company, Oct. 2018. pp. 1517-1534, indexed in Scopus and SCIE.
8. Kumar, N., Gaidhane, V.H. and Mittal R. K., Clustering and analysis of electricity consumption patterns in educational building. Journal of Engineering Technology, 6 (2), 537-547, 2018.

**C. Conferences attended/ papers presented:** NIL

**D. Books Published/Edited during the year:** NIL

**E. Conferences, seminars & workshops conducted:** NIL

**F. Invited Talks given by faculty:** NIL

**G. Invited talks / technical visits arranged by the department:**

The following invited talks have been arranged in the CS department, BPDC during Jan-Dec 2018:

1. Dr Anand Rao, was in Campus to collect this years Distinguished Alumni Award he gave a talk on Artificial Intelligence. He is currently Global Artificial Intelligence and Innovation Lead (Data & Analytics) & Partner,

PricewaterhouseCoopers (PwC), USA. Talk was conducted on September 2nd 2018. The talk was very well received by more than 175 students who attended.

- Mr Subhash from Scan Technology along with a team from ZOHO visited and met the CS Department **faculty and students. Zoho is India's largest SAAS based company with 6,500 employees and 40 applications** which are used by 30 million users throughout the world. They have an academic program for University students to learn low code programming either as a part of curriculum or as an extracurricular activity. Date: October 22nd 2018.
- Mr Chaturvedi head of IT, Al Sharawi group visited and met Faculty from CS for a discussion on pain points in the industry and Academia Industry collaboration. Date 23rd October 2018.
- Mr Danish Syed, Mr. Danish Syed is currently at Harvard University, specializing in Education, Human **Development and Psychology. Mr Danish gave a talk on "Inter-Disciplinary Programmes for Computer Science Graduates at the Premier Universities". Date: 30th October 2018.**

#### H. Awards and recognitions won by faculty and students

##### Quarter 1: January'18 to March'18

- Mantra awards Feb 2018, Harshal Mittal for Social Leadership, Gowtham S. for Entrepreneur of the year, Mihit Prabhudesai Innovator of the year.
- Jaskanwar Singh, Sujith Sizon, Tushar Agarwal, Jayant Panwar and Somil Mathur, won first position in 1st position in the IOT + Smart Cities category (USD 4000) and + 2nd position in Big Battles (USD 5000) in Autochain Seaside Startup Submitm held between 8th to 12th Feb 2018.
- Rida Khan was first runner-up for her paper in Sci-Tech held in Amity University on 28th Feb 2018.
- Naman Kamra, Vedant Bajaj, Ritwick D Souza, Saugaat Allabadi, Shaurya Sood won USD 20,000 in the Hack @The Track 2018, AngelHack conducted between 7th to 8th March 2018.
- Jaskanwar Singh (CS), Urvashi Satwani (Chemical), Somil Mathur (CS) and Tushar Agrawal (CS) won the HULT prize in the competition held between 9th to 10th March 2018
- Shaleen Bengani (III CS), Anchit Pandey (III CS), Mohammed Shoaib (II CS) participated in the 8th Gulf Programming Competition held on 22nd March 2018 at Zayed University and have secured the first position, with Faculty Coach Dr Sujala D. Shetty. The GPC is a five hour continuous tough and competitive coding competition. This year there were 42 participants from UAE, Saudi, Kuwait and Oman. The students solved the maximum number of questions (6 out of 10) in the shortest time. The students were awarded a trophy by the Vice Chancellor of Zayed University. They were also given a cash price of AED 2000 each.

##### Quarter 2: April'18 to June'18

- Jaskanwar Singh, Somil Mathur, Jayant Panwar, Tushar Agarwal and Sujith Sizon, won USD 1500 for the best pitch at Autochain at STARTAD, NYU, Abu Dhabi, held on 16th April at NYU Abu Dhabi.
- Mihir Prabhudesai, Dev Gupta and Mridul Bhandari, won the Falcon Hack Challenge held between 20th - 21st April 2018.
- Two students participated in 6th Undergraduate Research Competition held in Abu Dhabi University, Abu Dhabi on 30-4-2018. The team won the 2nd prize. Winners are Mihir Prabhudesai (III CS) Shaleen Bengani (III CS) with Faculty Advisor: Dr. Siddhaling Urolagin, under the Patronage of H.E. Hussain Ibrahim Al Hammadi, Minister of Education, Abu Dhabi University is organizing the Seventh Undergraduate Research Competition. This competition aims at encouraging universities to promote scientific research among undergraduate students and to make it an integral part of university education. Over 250 research papers presented in 14 parallel tracks submitted by 33 major universities in the UAE. They were given cash prize of AED 2500 for the team.
- Shaik Afreen Aarza won 3rd prize at Show and Tech 2018 held on 5th May 2018

##### Quarter 3: July'18 to September'18

- IQPC is one of the biggest event management company in the world. They had recently organized MENA regions biggest AI hackathon. The hack was a 3-day event consisting of 30+ Teams participating in the preliminary round. The event took place from 3rd to 5th September 2018 in Park Hyatt, Dubai and was attended by visionaries from Companies like Microsoft, Accenture, Etisalat, PWC, and Infosys. Two teams from BITS secured prestigious 1st and 3rd place in the finals. Following are their names.

1) First Prize

Students: Mihir Prabhudesai, Juzar Gulamali and Dev Gupta

Mentor: Mr. Nand Kumar

Prize: Internships at Accenture, DEWA & Goodies

2) Third Prize

Students: Ankita Rane, Shivani Sathe & Anandi Sekhar

Mentor: Dr. Sujala D. Shetty

Prize: Ipad Mini & Goodies from Dubai Municipality

#### Quarter 4: October'18 to December'18

1. Mihir Prabhudesai (CS) and Sarthak Sethi (EEE) won the first prize at Google Developer Group which held a Codathon for Developers of all ages across UAE. The event comprised of solving Algorithmic Challenges for pre-decided tasks ranging from Voice Biometrics to Quantum Cryptography. It was a 2 day coding event in which the team managed to build a Low-Computation Algorithmic Solution for the task of Speaker Recognition. The team was selected amongst 70+ participating teams all across UAE. They were also awarded 25,000 AED Cash Prize by Emirates NBD for their win. Date 23rd and 24th November 2018.
2. Three of our students Sameeksha Amin (IIIRD CS), Saifali (IInd CS), Niharika Senthil Kumar (IInd BIOT) stood first in the Inter Club Debate Contest, a division level toastmasters debate contest which was conducted on 16th November 2018 in American University in the Emirates. There were a total of 18 teams participating, including five star clubs such as ICAT Toastmasters Club, Emirates Toastmasters Club and Friends of Yoga Toastmasters Club. Among the participants were also teams from advanced clubs like Dubai Advanced Toastmasters Club and DIC Advanced Toastmasters Club. All contestants were not only much older than our students but also more experienced toastmasters.

**I. Faculty Development, International Collaboration & Industry Immersion: NIL**

**J. Significant new equipments /experimental facility added during the year:**

1. Machine learning:

High End GPU for Deep Learning Applications

480GB SAS, 2.4TB Hard Drive

NVIDIA Tesla V100 32GB GPU

2. Raspberry Pi 3-model B+ single board computer + Various Sensor kits 20 Devices

3. Design

Adobe Creative Cloud - 3 accounts

**K. Departmental Association/Club activities:**

1. Association for Computing Machinery – BPDC Chapter

Chapter Review – I Sem 2018-19

Chapter active since: 2010-2011

No. of members (2010 till present): 200

Active Paid Members: 37 (Student Membership Fee: AED 80 ; Professional Membership Fee: AED 300)

Office Bearers:

Faculty-in-Charge: Dr. Sujala D. Shetty

S. No	Name	Position
1	SHALEEN BENGANI	Chair
2	AYUB AMIR	Co-Chair
3	ESHWARAN V	Vice Chair
4	SHAIK SABIHA	Secretary
5	AAKANSHA MATHUR	Membership Chair
6	ANUBHAV GUPTA	Webmaster
7	CHETTUTHARA SULAIMAN TANZEEHA	Executive Council
8	NILANCHAL NILAMADHAB	
9	RISHABH KAUSHIK	
10	VIVEKANANDAN S	
11	VENKATA PRASANTH SAI KONDA	

**Events Organised:**

1. During the month of March 2018, a series of workshops were conducted on the following topics:
  - a) *March 5th – Monday (8,9) : Coding For Google Summer Of Code- Ritwick D'Souza(IV CS)*
  - b) *March 6th - Tuesday (8,9) : Peek Into Blockchain Technology & Ethereum Platform – Saugaat(IV CS) and Gayathri (III CS)*
  - c) *March 12th - Monday (8,9) : VR Development - Varun Sangani (IV CS)*
  - d) *March 13th - Tuesday (8,9) : Introduction to Game Development – Rewant Verma (IV CS)*
  - e) *March 19th - Monday (8,9) : Excel as a Business Tool – Sanjana Manoj, Sanjeev Gopalkrishna, Kunal Mehta (IV CS)*
  - f) *March 20th - Tuesday (8,9) : Hackathons-All you need to know – Jaskanwar Singh ,Tushar Agarwal (IInd CS)*
  - g) *March 26th - Monday (8,9) : Introduction to Linux – Adhitya R (IV CS), Amir Ayub (III CS)*
  - h) *March 27th - Tuesday (8,9) : Hackathon on Game Dev - Rewant Verma (IV CS)*
2. ACM conducted an interactive chat with Mr Zaidali Khoja. Mr. Zaidali Khoja, is an alumnus of BPDC batch of 2013-17, he was on campus on 15th March 2018 and he had an informal interaction with the students. Zaidali graduated as the gold medalist from BPDC in 2017 and is currently studying at Indian Institute of Management Bangalore.
3. ACM conducted a 36 Hour workshop on Competitive coding starting from) October 2017 – February 2018.
4. ACM conducted a 10 week Python workshop from September 2018-December 2018.
5. A roadshow was arranged to Emirates Innovation Lab on November 19th 2018, where students were exposed to the innovative ideas used in Emirates.
6. Build your PC workshop conducted on October 29th 2018.

**2. Microsoft Tech Club**

Chapter active since: 2007- till now

No. of members: 50

Faculty-in-charge: Dr.S.Vadivel

**Overview:**

Most of the software industries that are part of PS-2 make use of Microsoft platforms. We do not have any elective exclusively to train the students in Microsoft platforms. Microsoft Tech club was formed to impart the knowledge of major Microsoft products to the students using Tech Leads of the club so that they can apply the tools and acquire valuable knowledge that will be of immense help when they join PS-2 as well as when they appear for placement interviews.

S. No	Name	Position
1	Ahmad Uzair	president
2	Haritha Hariskrishnan	Acting president
3	Mirdul Bhandari	Vice president
4	Tech Lead	Anubhav Gupta
5	AAKANSHA MATHUR	Membership Chair
6	Piyush Khandelwal	Tech Lead
7	Parth Poply	Web Lead
8	Mohammed Shoaib	Web lead

<b>Name of the event</b>	<b>Date</b>	<b>Name of the activity</b>	<b>No of participated students</b>
CodeBlitz(Enginuity)	13-02-18	Each participating team (2 Members per team) is given a series of programs with very trivial and subtle errors (bugs). The participant would have to identify the bugs and debug the code to get the correct output for all valid test cases	10 teams (20 students)
Frynapse(Enginuity)	15-02-18	A virtual scavenger hunt where the teams have to decode the answer from the given clues. Teams can make use of the internet	14 teams (28 students)
Introduction to Azure(Enginuity)	14-02-18	Introduction to Cloud computing platform by Microsoft and services offered by the platform with a hands-on lab session	30
Introduction to GitHub and Visual Studio Code	05-03-18	An introduction to Github – repository and source control versioning platform and Visual Studio Code – a Code editor by Microsoft	15
Introduction to Web Development with Angular	Semester long in Second Semester	Introduction to web development with Angular	15
Global Azure Bootcamp	21-04-18	A set of sessions on Microsoft Azure covering different topics like Business Intelligence, Web Apps, Mobile App Development, Web Development	35



**B4.14.6 Department : Biotechnology**

Number of faculty members (as on 31 December 2018)

Senior Professors, Professors	03
Associate Professors	02
Assistant Professors	03
Lecturers	-
Visiting Faculty	-

Head of the Department: Dr. D.Jalaluddin Shariff

Contact details: djshariff@dubai.bits-pilani.ac.in

Number of PhD Scholars: 3

**A. Sponsored Research activities:****1. Ongoing projects:**

- PI: Ramchandran S, CoPI: Gokhale, T, Sood, N, Ismail S, Prakashkumar BG, .Babu C, Khalil.Ur.Rahman. Optimization of Selected High Yield Grass Species for Biomass and Bioenergy Applications using Saline and Recycled Wastewater, Feb 2017- to date

**2. Projects sanctioned during the year:**

- Gulyani BB, Nishant Pandya, CoPI Gokhale S, CoPI Sood N Bioremediation of Red Mud using acidogenic fermentation byproducts and biopiling, ABSTCPL
- ExpoLive Project, Team Supervised by Dr. Trupti Gokhale and Neeru Sood (AED- 25,000/-)

**3. Projects completed this year: NIL****B. Publications**

1. Uday Narayan Pan, Pallab Sanpui, Anumita Paul , and Arun Chattopadhyay; Surface-Complexed Zinc Ferrite Magnetofluorescent Nanoparticles for Killing Cancer Cells and Single-Particle-Level Cellular Imaging; ACS Applied Nano Materials; vol 1, 2496–2502.
2. Mainak Dutta, Brajesh Singh et al.; Metabolomics reveals perturbations in endometrium and serum of minimal and mild endometriosis; vol 8, pg 1-9
3. Meenu Maan, Jeffrey M Peters, Mainak Dutta, Andrew Patterson; Lipid metabolism and lipophagy in cancer, Biochemical and biophysical research communications, vol 504, pp 582-589
4. Jayashree Acharya, Mainak Dutta, Koel Chaudhury, Bratati De, Metabolomics and chemometric study for identification of acetylcholinesterase inhibitor(s) from the flower extracts of *Nymphaea pubescens*, Journal of Food Biochemistry, vol42, pp 1-8
5. Wegelius, A., Khanna, N., Esmieu, C., Barone, G. D., Pinto, F., Tamagnini, P., Berggren, G., Lindblad, P., Generation of a functional, semisynthetic [FeFe]- hydrogenase in a photosynthetic microorganism, Energy Environ. Sci., vol 11

**C. Conferences attended/papers presented :**

Following papers were presented in the international conferences by the department faculty/ staff/PhD scholar in the year 2018

1. *Rajeswari Somasundaram, Somasundaram Arumugam, Nishrin Abdul Gafoor, Trupti Gokhale Swarup, Neeru Sood and S. Arumugam; A computational approach to identify the role of potassium transporter in barley plant; International Conference on Theoretical Computer Science and Discrete Mathematics (ICTCSDM 2018) Organized by Department of Mathematics SSN College of Engineering Chennai, INDIA on December 03 - 05, 2018*
2. *Anushka Lydia Isaac and Shariff DJ, poster presentation on "Use of genomics in the diagnosis of diseases" at NYU Abu Dhabi – Center for Genomics and Systems Biology, Abu Dhabi, U.A.E. on Feb 6-8, 2018.*

3. *Sidra Raihan and Trupti Gokhale, X-chromosomal Inactivation: new players in Gene Silencing, Genome Systems VIII, Organized by Centre for Genomics and Systems Biology, New York University Abu Dhabi, UAE during 7th- 8th February 2018.*
4. *D J Shariff and Mohamed Atyab, paper presentation on 'Social media - its influence on the thoughts, beliefs and actions of young adults of UAE' at International Conference on Media, Culture and Ethics 2018 organized by Department of Humanities & Social Sciences, BITS Pilani, Pilani Campus, during 9-10th February 2018*

#### D. Books Published/Edited during the year:

Ramesh C Ray, S Ramachandran; Bioethanol Production from Food Crops; Elsevier, 1st edition

#### E. Conferences, seminars & workshops conducted:

- School Workshop, Discovering DNA conducted on 18th October, 2018

#### F. Invited Talks given by BITS faculty:

- Dr. Namita Khanna, Synthetic Biology meets Synthetic Chemistry: In vivo activation of an apo-metalloenzyme using synthetic cofactors. Genome Systems VII at Centre for Genomics and Systems Biology, New York University Abu Dhabi, UAE, 7th- 8th February 2018 (Invited talk)
- Dr. Neeru Sood, "Microbes for better tomorrow" at the International Conference on Microbes for Better Tomorrow, Dr. D.Y. Patil University, Pune, India, 17th to 19th February 2018 (invited talk)
- Dr. Mainak Dutta, Deciphering the lipidome: a necessary step towards understanding the complexity of biological systems at Research Institute of Medical & Health Sciences, University of Sharjah, Sharjah, UAE on 14th Feb, 2018 (invited talk)
- Dr. Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Microbes for Better Tomorrow 2018 during 17th to 19th February 2018 held at Dr. D.Y. Patil University, Pune, India. (Invited talk)
- Dr. Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Nanotechnology for Human Welfare ( ICNH-2018) held at H.V. Desai College, Pune, India during 1st to 2nd February 2018.(Invited Talk).

#### G. Invited talks arranged in the department:

1. Speaker: Ms. Soha Ghayur, Designation: Biomedical engineer, Organization: Forensic Science
2. Topic: Tools and techniques used in Forensic investigation, Date: 10th Oct 2018
3. Speaker: David R. Nelson, Designation: Research Scientist, Organization: New York University of Abu Dhabi, Topic: Genomics, Date: 2nd May 2018
4. Speaker: P. Yogeewari, Designation: Professor, Organization: BITS Pilani, Hyderabad Campus, Topic: entrepreneurship opportunities in Biopharma sectors, Date: 18th October 2018

#### H. Awards and recognitions won by faculty and students

#### I. Faculty Development, International Collaboration & Industry Immersion:

Faculty Development: NIL

#### J. Significant new equipment /experimental facility added during the year:

Following equipment were purchased during this period:

#### LIST OF EQUIPMENTS PROCURED DURING THE YEAR 2018

S. No	Name of Equipment	Used for Courses/Thesis/Dissertation Computational/Administrative Work
1.	Biosafety Cabinet	Microbiological project
2.	Bath sonicator	Experiments in Biotechnology
3.	Ultra-Low temperature freezer	Experiments in Biotechnology
4.	Probe sonicator	Genetic engineering

**K. Departmental association/club activities:**

- Farewell was given for the outgoing batch on 14th May 2018
- Fresher's Welcome, 5th Sep 2018
- Nowayout escape rooms, an entertainment outing for students and faculty

**L. Student Achievements:**

ExpoLive Project, Team Supervised by Dr. Trupti Gokhale and Neeru Sood (AED- 25,000/-)

**M. Student Development: Nil****N. Student Projects taken under faculty guidance:**

List of First Degree Projects Second Semester 2017 -2018 (January 2018 to June 2018)				
Sl.No.	Name	Topic	Instructor	Type
1	AFRAA SIRAJ HUSSAIN	Classification and Functions of antioxidants in Stress Regulation	Ramachandran .S	DP
2	NOURIN NAWSHAD	Role of Rubisco like proteins in biological systems.	Ramachandran .S	DP
3	MALIHA WAJAHAT	Role of Formate Acetyltransferase in stress regulation	Ramachandran .S	DP
4	POTDAR SHAUNAK VIKRAM	Creation of a portable Incubator	MAINAK DUTTA	DP
5	AKANKSHA PULIN PARIKH	Biochemical Analysis of Salicornia seeds	Dawood Jalaluddin Shariff	LP
6	RUBITHA SOURESH	Biochemical Analysis of Salicornia defatted seeds and oil	Dawood Jalaluddin Shariff	LP
7	ZAINAB FATIMA JUDDY	Laboratory techniques to test body fluids, body samples and other substances for forensic analysis	Dawood Jalaluddin Shariff	LP
8	SYED RAZAA ALI	Analysis of body samples and other substances related to forensic aspects	Dawood Jalaluddin Shariff	LP
9	AKSHAYAA SRIDHAR	Study effect of environmental factors on growth of microbial isolates associated with root nodules of acacia ampliceps.	Neeru Sood	LP
10	CLEO MURALI	To study the effect of temperature and metal tolerance on rhizobial isolates isolated from Acacia sp	Neeru Sood	LP
11	GITANJALI ANIL NAIR	Development and validation of analytical method for selected drug(s) for estimation in bulk and formulations.	Neeru Sood	LP
12	MANALI PARAG PHAWDE	Development and validation of analytical method for selected drug(s) for estimation in bulk and formulations.	Neeru Sood	LP
13	NITYA BHARDWAJ	Biological Synthesis of ZnO nanoparticles and their effect on plant growth	Neeru Sood	LP
14	REEM MUNAWAR KAWARE	Development and validation of analytical method for selected drug(s) for estimation in bulk and formulations.	Neeru Sood	LP

List of First Degree Projects				
Second Semester 2017 -2018 (January 2018 to June 2018)				
Sl.No.	Name	Topic	Instructor	Type
15	DISHA PRAKASH SHAHANI	Development and validation of analytical method for selected drug(s) for estimation in bulk and formulations.	Neeru Sood	LP
16	MANALI NILESH KORGAONKAR	Development and validation of analytical method for selected drug(s) for estimation in bulk and formulations.	Neeru Sood	LP
17	RUDRA SURESH	Analysis of biochemical components in plants under saline conditions	Ramachandran .S	LP
18	SHARON ELSA OOMMEN	Analysis of biochemical components of plants used in animal feeds	Ramachandran .S	LP
19	THERESA PAUL	Development of animal feed for camel	Ramachandran .S	LP
20	MOHAMED SHAZIN	Optimisation of MFC on electrode, source and organism.	Geetha	LP
21	POTDAR SHAUNAK VIKRAM	Harvesting energy from microorganisms	Geetha	LP
22	DEBASHISH SACHIN CHITNIS	Effects of metal nanoparticles on plant fungi	Gokhale Trupti Swarup	LP
23	NAMISHA R BOHARA	Effect of nanoparticles on pathogenic plant fungi	Gokhale Trupti Swarup	LP
24	ANGEL MATHEW	Study on the effects of metal nanoparticles on fungi	Gokhale Trupti Swarup	LP
25	SIDRA RAIHAN	Optimisation of Process Parameters for Preparing Nanoparticle Systems and Evaluation	R N SAHA	LP
26	MOHAMED SHAZIN	Optimisation of MFC on electrode, source and organism.	Geetha	LP
27	POTDAR SHAUNAK VIKRAM	Harvesting energy from microorganisms	Geetha	LP
28	RESHMA MOHIDEEN PADIYATH	Mental Illnesses and their Early Detection	Dawood Jalaluddin Shariff	SP
29	RISHIKA PISKALA RAVIKANTH	The perception of Diabetes-free style of life	Dawood Jalaluddin Shariff	SP
30	ANUSHKA LYDIA ISSAC	Study on the deficiency of Vitamin D and Human Health.	Dawood Jalaluddin Shariff	SP
31	HARINI M	Effect of foliar application of biologically synthesized zinc nanoparticles on plants.	Neeru Sood	SP
32	PARTH POPLY	Nutrition, Health and Fitness - A Meta-Analysis.	Neeru Sood	SP
33	SAMANTHA RACHEL FERRAO	Current Developments in Diagnosis, Treatment Methods & Prevention of Genetic Disorders	Ramachandran .S	SP

List of First Degree Projects				
First Semester 2018 -2019 (August 2018 to December 2018)				
Sl.No.	Name	Topic	Instructor	Type
1	AKSHAYAA SRIDHAR	Salt tolerant rhizobia - EPS production & plasmid isolation from the bacterial isolates associated with root nodules of Acacia	Neeru Sood	DP
2	SHARON ELSA OOMMEN	Extraction of Cellulose from Pennisetum purpureum for Industrial applications	Ramachandran .S	DP
3	AREEBA FATIMA	Designing a Biochemical Sensor to Measure the Level of Ethylene Released by Climacteric Fruits During Ripening	Gokhale Trupti Swarup	DP
4	DISHA PRAKASH SHAHANI	Designing a chemical gas sensor to measure ethylene produced from fruits and associate it with fruit ripening.	Gokhale Trupti Swarup	DP
5	RUBITHA SOURESH	Genetic Engineering of cyanobacteria for Isobutanol	NAMITA KHANNA	DP
6	ZAINAB FATIMA JUDDY	Analysis of Minerals and Vitamins Content of Infused Water from Different Vegetables and Herbs in Relation with Human Health	Dawood Jalaluddin Shariff	LP
7	SYED RAZAA ALI	Evaluation of the mineral and vitamin contents present in Detox water from a variety of fruits and spices, and its correlation with human health.	Dawood Jalaluddin Shariff	LP
8	GITANJALI ANIL NAIR	Synthesis of metal nanoparticles from algae	Neeru Sood	LP
9	GLADYS N	Synthesis of metal nanoparticles from plants - Green synthesis approach	Neeru Sood	LP
10	AREEBA FATIMA	Designing Liposomal Carrier for Selected Bioactive Compound for Therapeutic Benefits	R N SAHA	LP
11	POTDAR SHAUNAK VIKRAM	Metabolomics analysis of urine from mice induced with peritoneal inflammation	MAINAK DUTTA	LP
12	CHIRAG PARAG GHAG	A metabolomics approach to study the health benefits of Salicornia bigelovii	MAINAK DUTTA	LP
13	WOOROOD MOHAMED DAKHEL	Biobutanol production	NAMITA KHANNA	LP
14	SAFIYA AAFREEN	Production of hydrogen using a co culture of algae and bacteria	NAMITA KHANNA	LP
15	VASUDHARINI VENKATARAMAN	Fermentation of hydrogen gas from bacteria using algae as a source of nutrition	NAMITA KHANNA	LP
16	SULAF MAJDEDDIN ALNASER	Biofuel production	NAMITA KHANNA	LP
17	BARAI SAMRUDDHI PRAMOD	Production of biodiesels using algae	NAMITA KHANNA	LP

List of First Degree Projects				
First Semester 2018 -2019 (August 2018 to December 2018)				
Sl.No.	Name	Topic	Instructor	Type
18	ANDREA GIGI VARGHESE	A Study on the prevalence of Diabetes in the younger Indian expats of Dubai.	Dawood Jalaluddin Shariff	SP
19	GITANJALI ANIL NAIR	A Study on the prevalence of Diabetes in the Adult Indian expats of Dubai.	Dawood Jalaluddin Shariff	SP
20	RAZAN MOIEN ADEL MAHMOUD	Mental Health- causes and control	Neeru Sood	SP
21	LUJAIN KHALED SUBHI ALSADEQ	Data Mining techniques and Breast cancer	Neeru Sood	SP
22	NEEHARIKA SENTHILKUMAR	Bioethics and their implications in Genetics and Medicine	Neeru Sood	SP
23	SAJIDA BEGUM M.	Current Advances in Gene manipulation of fishes and their applications	Ramachandran .S	SP
24	SIMRAN NIRMAL ARORA	Recombinant Antibodies	Gokhale Trupti Swarup	SP
25	POTDAR SHAUNAK VIKRAM	Designing liposomal carriers for selected drug for therapeutic benefits	R N SAHA	SP
26	NAMISHA R BOHARA	Nanoparticle-Protein Interactions with implications in therapeutics.	PALLAB SANPUI	SP
27	JEMIMA GRACE FRANCIS	A comparative study of different types of biofuels that can be explored in UAE	NAMITA KHANNA	SP

**B4.14.7 Department: General Sciences**

Number of faculty members (as on 31st December 2018)

Senior Professors, Professors	6
Associate Professors	7
Assistant Professors	5
Lecturers	0
Visiting Faculty	0
Adjunct Professor	0

**Head of the Department:** Dr. Vijaya Ilango**Contact details :** [vilango@dubai.bits-pilani.ac.in](mailto:vilango@dubai.bits-pilani.ac.in)**Ph.D. Thesis Submitted during the year:** 0**Number of PhD Scholars :** 2**Ph.D. Proposal Submitted during the year :** 1**A. Sponsored Research activities :** NIL**B. Publications:**

- 1 Dana Mohamed Asraf, Vijaya Ilango and S. Ramachandran, Characterization of biomass quality of high yielding Napier grass species for forage applications, International Journal of Eco. Env. & Cons, 24(3) (1430-1434), 2018
- 2 A Balasubramanian, A Somasundaram, B Vasanthi, Institutional preparedness for e-governance in Indian Affiliating Universities: A study on the views of Administrative Faculty, International Journal of Pure and Applied Mathematics, 119(15) 3205-3214, 2018

**C. Conferences attended/papers presented:**

- 1 Bajpai, Priti., & Maneesha, Analyzing Effect of Social Media on Academic Performance of University Graduates. 2018, The 3rd International Conference on Information and Education Innovations(ICIEI 2018), London, United Kingdom, 30June- 2July, 2018
- 2 Abinaya Arunachalam and Geetha Kannan, Comparative Study on Extraction and Quantification of Phytochemicals from Biomass, Current Trends in Biotechnology-CTBT 2018, Manipal Academy of Higher Education, Dubai Campus, April 18-19, 2018
- 3 AkshaiA,Ramachandran S, Geetha K, Rajib Ghosh Chaudhuri, Khalil Ur Rahman and B G Prakash Kumar, Sustainable Energy from Napier Grass, Current Trends in Biotechnology-CTBT 2018, Manipal Academy of Higher Education, Dubai Campus, April 18-19, 2018
- 4 Monica Isukapalli Geetha Kannan, Khalil ur Rahman , B.G.Prakash Kumar and S.Ramachandran, Evaluation of Water Retention Capacity of Soil Amended with Biochar, Current Trends in Biotechnology-CTBT 2018, Manipal Academy of Higher Education, Dubai Campus, April 18-19, 2018
- 5 ,Shaunak Vikram Potdar, Mohamed Shazin, and Geetha Kannan, Harvesting Energy from Microorganism using a Microbial Fuel Cell, Current Trends in Biotechnology-CTBT 2018, Manipal Academy of Higher Education, Dubai Campus, April 18-19, 2018
- 6 Shaunak V Potdar, Mohamed Shazin and Geetha Kannan. A Sustainable Energy Source From Microbes Using a MFC, International Conference on Recent Advances in Fluid and Thermal Sciences (iCRAFT2018), Dec 5-7, 2018
- 7 A Somasundaram, Secure Domination in Graphs, International Conference on Discrete Mathematics and its Applications to Network Science. BITS Pilani, Goa Campus, July 7-10, 2018
- 8 A Somasundaram, Domination Subdivision number of a graph, Sixtieth Midwest Graph Theory Conference, Purdue University, Fort Wayne, September 28-29, 2018
- 9 S. Rajeswari, A. Somasundaram, Nishrin Abdul Gafoor,Trupti Gokhele Swarup, Neeru Sood and S. Arumugam, A computational approach to identify the role of potassium transporter in barley, International Conference on Therotical Computer Science and Discrete Mathematics December 03-05, 2018, SSN College of Engineering (SSNCE), Chennai, December 03-05, 2018

## D. Books Published/Edited during the year:

S.No.	Title of the Book/ Chapter titles	Author/ Editor of book chapters	Publishing house	Year and month of publication
1	Functional Nanomaterials and Nanotechnologies: Applications for Energy and Environment			
2	Chapter 1: Recent Advances in Nanocarbon-based Polymer Composite Materials as Membranes in Fuel Cell Applications	Authors: Seba Sara Verghese, Saino Hanna Varghese, Sundaram Swaminathan, Krishna Kumar Singh and Vikas Mittal	Central West Publishing, Australia	Feb, 2018
3	Chapter 2: Theoretical Insights into Gas Molecular Adsorption on Graphene: Implications for Gas Sensing Applications			
4	Chapter 3: DFT based Investigation of N <sub>2</sub> O Adsorption on Graphene and Heteroatom doped Graphene			
5	Emerging Trends of Nanotechnology in Environment and Sustainability A Review-Based Approach			
6	Nanotechnology to Sustain a Clean Environment	Shanelle Govekar, Ravi Kumar, Rajesh Suresh and Karthiyayini Sridharan	Springer	Jan, 2018
7	Reducing the Impacts of Greenhouse Gases	T. Vuday Sankar, Dhruvil Patel, R. Sugaraj Samuel and G. Amaranath		
8	Nanotechnology in the Food Industry—And the Benefits and Improvements in Food Processing and Packaging Brought About by it	H. Kasi Viswanathan, Nikhil Reji Thomas and G. Amaranath		
9	Nanotechnology for Sustainable Raw Mineral Extraction and Use	Kritin Chugh, Ashish Kapur and Kavita Jerath		
10	Nanotechnology in Energy Harvesting	Shyam Krishna and Kavita Jerath		
11	Nanomaterials-Based Adsorbents for Water and Wastewater Treatments	Iris Gopalakrishnan, R. Sugaraj Samuel and Karthiyayini Sridharan		
12	Water Remediation by Nanofiltration and Catalytic Degradation	R. Sugaraj Samuel and Karthiyayini Sridharan		
13	Magnetic Nanomaterials and Their Use in Water Treatment	Kavita Jerath		

F. Invited Talks given by faculty : NIL

G. Invited talks / technical visits arranged by the department: NIL

H. Awards and recognitions won by faculty and students : NIL

I. Faculty Development, International Collaboration & Industry Immersion

Prof. K.K. Singh, Dept of General Sciences /Physics gone through University Exposure Program during 20 June-20 August 2018 at Beckman Institute, University of Illinois, Urbana Champaign, USA. There he had learnt about different simulation techniques like VASP, VESTA, Material Studio, VMD etc which is very much useful for doing research in nanomaterials to study their electronic property and study the application of nanomaterials for sensing purpose.



## J. Significant new equipments/experimental facility added during the year:

1	Student Spectrometer	Physics Laboratory
2	Spectral Tube Power Supply And Mount	Physics Laboratory
3	Spectral Tube (Hydrogen)	Physics Laboratory
4	Green Diode Laser	Physics Laboratory
5	Colorimeter	Chemistry Laboratory
6	Water Bath	Chemistry Laboratory
7	Vacuum pump	Chemistry Laboratory

## K. Departmental Association/Club activities:

Association Name: Flummoxed Quizzing Association

Activities: Flummoxed 2018

S.No.	Event Name	Date/Duration	Description
01	Triviance	February 2018	Held during Engenuity'18. Saw over 80 participants from various universities compete in a quiz focused on all things science, technology, and business.
02	Chai Pe Challenge	February 2018	Organized in association with the Cochin Quiz Club and the Dubai Quizzing Association. Professionals as well as Amateur Quizzers from the university and elsewhere took part in this event. The winners flew to Cochin for the finals.
03	Marvel vs DC – A Comic Affair	April 2018	Held during Jashn'18, this quiz was based on the overall theme of the festival, La Comic Fiesta. An innovative take on quizzing, this event saw over 100 students from across the UAE.
04	Quiz Festival	April 2018	A 3 day quizzing festival was organized right towards the end of the semester, culminating in our annual B'Quizzed event.
05	League of Champions	January 2018 – May 2018	This was a continuation of the online quizzing league which saw over 300 participants from across the world compete against each other on a variety of quizzes.
06	Weekly Sessions	February 2018 - Present	The club organizes weekly sessions to train students for upcoming competitions.
07	TATA Crucibles	May 2018	Helped the team from TATA Crucibles conduct and organize this event at our campus. Our teams secured first and third place in this event which saw over 500 participants from across the UAE compete for cash prizes worth 30,000 AED.
08	Pop Fiesta	October 2018	Conducted during Sparks 2018, this event saw over 50 participants compete against each other in a fun quiz with the central theme being Pop Culture.
09	TAPMI Quiz on the Beach	October 2018	Helped promote this event, in partnership with TAPMI and Manipal. Our team secured first place in the event and shall compete in the International Finals this January.
10	The Wolf of Wallstreet	September 2018	Added a quizzing aspect to the annual stock simulation event organized by CIIED where the finalists could bid on questions and use the money to buy stock.

**B4.14.8. Department: Humanities & Social Sciences**

Number of faculty members (as on 31st December 2018)

Senior Professors, Professors	01
Associate Professors	01
Assistant Professors	02
Lecturers	0
Visiting Faculty	01
Adjunct Professor	09

**Head of the Department** : Dr. Shazi Shah Jabeen**Contact details** : shazi@dubai.bits-pilani.ac.in**Ph.D. Thesis Submitted during the year** : Nil**Number of PhD Scholars** : (02 Full Time, 03 Part Time and 0 Off campus)**Ph.D. Proposal Submitted during the year** : 01

An Examination of the Digitalization Factors Influencing Electronic Commerce (Ecommerce) Adoption in the Gulf Cooperation Council (GCC) Countries for the Fashion Retail Industry

**A. Sponsored Research activities:** Nil**B. Publications:**

1. Sheetal Desai, Srinivasa A. Rao, Shazi Shah Jabeen. 2018. Developing cultural intelligence: learning together with reciprocal mentoring, Human Resource Management International Digest, Vol. 26 Issue: 3, 38-40, <https://doi.org/10.1108/HRMID-03-2018-0050>
2. Sheetal Desai, Shazi Shah Jabeen, Waheed K Abdul, Srinivasa A Rao. 2018. **Teaching cross-cultural management: A flipped classroom approach using films**, The International Journal of Management Education, 16 (3), 405–431. <https://doi.org/10.1016/j.ijme.2018.07.001>.
3. Sartaj Rasool Rather, **'Asymmetric impact of relative price shocks in presence of trend inflation'**, Applied Economics Letters, <https://doi.org/10.1080/13504851.2018.1494800>.
4. A. Srinivasa Rao, **'A Study on Micro Women Entrepreneurs in U.A.E'**, Book Title: Entrepreneurship in the MENA: Dynamics in Trends, Policy and Business environment, July 2018 Springer, 449-475.

**C. Conferences attended/papers presented:**

1. Sartaj Rasool Rather. Do Prices Rise Faster than they Fall – Evidence from India, Annual Conference of The Indian Econometric Society (TIES), 7-9 March, 2018, SMVDU Jammu, India,
2. Akshaya Kalyanaraman, Abbinaya Kalyanaraman and Shazi Shah Jabeen **'Language Socialization in Virtual Communities'**, 7th Annual International Conference on Language, Literature and Linguistics (L3) 2018, organized by Global Science and Technology Forum, Singapore, 11-12 June 2018.

**D. Books Published/Edited during the year:** Nil**E. Conferences, seminars & workshops conducted:** Nil**F. Invited Talks given by faculty:** Nil**G. Invited talks / technical visits arranged by the department:**

1. On 21 Feb 2018, an interactive session was organized by the Dept. of Humanities and Social Sciences on Delegation by Professor Bhaskar Bose, Adjunct Faculty, BITS Pilani, Pilani Campus.
2. On 06 March 2018, an interactive session was organized by the Dept. of Humanities and Social Sciences on Entrepreneurship in the consumer Internet business by Mr. Kavikrut, Chief Growth Officer at OYO Rooms, India.
3. On 27 March 2018, an interactive session was organized by the Dept. of Humanities and Social Sciences on Global Capital Market Outlook Perspective 2018- 2019 by Surinder K. Suri, President, Global Economic Management and Associates, Ontario Canada.
4. On 17 April 2018, , an interactive session was organized by the Dept. of Humanities and Social Sciences on Biodiversity-Why It Matters to the Human Well-Being by Prof. Brendon Larson, Associate Dean, Undergraduate Studies in the Faculty of Environment, University of Waterloo, Canada.

5. On 03 May 2018, a lecture was organized by the Dept of HSS on Mapping International Migration Evidence from Kerala Migration Surveys, 1998-2018 by Professor S. Irudaya Rajan *CDS, Kerala, India*.
6. On 09 September 2018, a lecture was organized by the Dept of HSS on Why do successful people feel like impostors? By Dr. Devasmita Chakraverty, Assistant Professor, Science Education, Washington State University, USA.
7. On 30 September 2018, a lecture was organized by the Dept of HSS on Exploring Human Dignity as Human Rights: Perspectives from Gandhi and Ambedkar by Dr. Ravi Ranjan, Senior Assistant Professor, Zakir Husain Delhi College, University of Delhi, India.
8. On 28 October 2018, a lecture was organized by the Dept of HSS on Inspiring Internal Innovation in Organizations by Dr. Mohan Agarwal, Professor, Business and Director Continuing Education & Community Engagement, Mena College, Dubai.
9. On 06 November 2018, a lecture was organized by the Dept of HSS on Exchange Rate: Determination and Volatility by Dr. Arif Billah Dar, Assistant Professor, SMVD University Institute of Management Technology, Ghaziabad, India.
10. On 05 December 2018, a lecture was organized by the Dept. of HSS on Option Strategies for Hedging and Speculation by Prof. Arya Kumar, Professor, Dept of Economics & Finance and Dean, Alumni Affairs, BITS Pilani, Pilani Campus, India.
11. On 05 December 2018, a lecture was organized by the Dept. of HSS on Venture Capital Process by Prof. Arya Kumar, Professor, Dept of Economics & Finance and Dean, Alumni Affairs, BITS Pilani, Pilani Campus, India.

#### H. Awards and recognitions won by faculty and students

1. Appointed a member of Organizing Committee of 6th World Conference on Applied Science, Engineering and Technology (WCASET-18) held at Goa, India on 2 & 3 January, 2018.
2. Appointed a member of International Advisory Committee of 1st Edition of International Conference on Social Responsibility of Educational Institutions in Developing Countries (ICSEDC – 2018) held during 24-25 August 2018 organized by Ramakrishna Mission Vidyalaya, Coimbatore, Tamil Nadu, India.

#### I. Faculty Development, International Collaboration & Industry Immersion

1. Reviewed 21 papers for New Frontier, International Journal of Humanities and Social Sciences. Print ISSN: 2394 - 8221.
2. Reviewed four research papers for 7th International Conference on Language, Medias and Culture (ICLMC 2018) to be held during March 26-28, 2018, in Fukuoka, Japan.
3. Reviewed three research papers for 5th International Conference on Linguistics, Literature and Arts (ICLLA 2018) to be held in Hoam Faculty House of Seoul National University, Seoul, South Korea during January 27-29, 2018.
4. Examined PhD thesis entitled "A Study of Interference of Singkil Language to Indonesian Language", Aligarh Muslim University, India (2018).
5. Examined PhD thesis entitled "Syllable Structure and Word Stress in Hajji and Hudaidi Yemini Dialects of Arabic in the Light of Optimality Theory", Aligarh Muslim University, India (2018).
6. Examined PhD thesis entitled "Engineers and Technical Writing: Significance, Relevance and Application", Sathyabama University, India (2018).

#### J. Significant new equipments/experimental facility added during the year: Nil

#### K. Departmental Association/Club activities: Nil

##### 1. In-house publications:

Two issues of the in-house publications of Dubai Campus were released during the year:

- i. @bitsdubai (Institute's newsletter) - Volume 15 Issue 1 (2017-2018)
- ii. @bitsdubai (Institute's newsletter) - Volume 15 Issue 2 (2017-2018)
- iii. Perspectives@bitsdubai (Institute's journal) - Volume 7 Issue 1 (2017-2018)
- iv. Perspectives@bitsdubai (Institute's journal) - Volume 7 Issue 2 (2017-2018)

##### 2. Association : Nil

**B4.15 DIVISION/ UNIT/ CENTERWISE ACTIVITY HIGHLIGHTS****B4.15.1 Academic Research Division****Award of Ph.D. Degree (viva conducted) Dubai Campus**

S. No.	Name	Title
1	Mr Praveen Kumar Reddy (Eee Department)	Some Aspects of Local Feature Description Models and Their Applications in Medical Image Registration

**Ph.D. Qualifying examination :** 11 Ph.D candidates under aspirant/part times, faculty development scheme and students category, were permitted to appear in the Ph.D qualifying examination in the year 2018.

**Sponsored Research Projects**

Research projects sponsored by the Institute, are in operation. A list of ongoing research projects is given below:

**Ongoing Projects :**

S. No.	Projects Title	Principal / Co – Principal Investigator	Sponsored by	Amount Sanctioned(AED)
1	Numerical Modelling of Surcharge Preloading with Vertical Drains	G Sridhar (PI)	RIG - BITS PILANI, DUBAI CAMPUS	AED 20000
2	Performance analysis of the port structures incorporating soil structure interaction under earthquake and hydrodynamic force	Vivek B (PI)	RIG - BITS PILANI, DUBAI CAMPUS	AED 20000
3	Development of photocatalyst embedded Graphene-based membranes for treatment of dye containing wastewater under sunlight	Rajib Ghosh Chaudhuri (Co-PI), Eldhose lype, B G Prakash Kumar	ABSTC-BITS Pilani	
4	Design and Development of Direct Methanol Fuel Cell with Effective Species Management Technique	Dr. Naveen Shrivastava	RIG - BITS PILANI, DUBAI CAMPUS	AED 20000
5	Magic and Antimagic Labelings of Graphs	A Somasundaram (Co PI)	Science and Engineering Research Board, DST, Govt of India	
6	Optimization of selected High yield Grass species for Biomass and Bio-energy Applications using Saline and Recycled water (ONGOING)	Dr. Ramachandran S (PI)/ Dr. Neeru Sood (Co-PI) / Dr. Trupti Gokhale (Co-PI)/ Dr. Prakash Kumar BG (Co-PI)	Seed grant, BITS Pilani	
7	Bioremediation of Red Mud using acidogenic fermentation byproducts and biopoling (ONGOING)	Dr. Neeru Sood (Co-PI) / Dr. Trupti Gokhale (Co-PI)	ABSTCL	
8	Design and Development of closed loop control system to improve the process capability of Incremental Sheet Metal Forming	Dr R Karthikeyan Dr Vishal Dr Kalaichelvi Dr Vilas	Seed Grant, BITS Pilani	AED 90000
9	Bio tribo corrosion of Bulk metallic glass	Dr Vincent Dr R Karthikeyan	Seed Grant, BITS Pilani	AED 90000

**Research Contributions through Higher Degree Dissertations:**

A total of 29 M.E. and M.B.A. Dissertation Projects were carried out over a period from January 2018 to December 2018 during the academic year 2017-18. The list is given in Annexure B4-13

**Research Contributions through First Degree Theses:**

A total of 43 students completed their first-degree theses during both the semesters of the calendar year 2018. Besides faculty members of the Institute, scientists from R & D labs and other professionals also supervised the thesis work. The complete list is given in Annexure B4-14.

**Research Publications by Faculty, Staff and Students:**

There were a total of 115 contributions which include 55 in various international Journals and 44 in various Conferences and 16 publications in book chapters. The complete list of research contributions made by the faculty, staff and students is given in Annexures B4-11 and B4-12.

**Some Noteworthy Achievements:**

1. Team Trepit consists of 5 BPDC mechanical students namely Mohamed Nawaz Muallim, Tarun Krishna Jayachandran, Pranay Addepalli, Harsith Rani Ashokkumar and Adhitya Natrajan from BITS Pilani, Dubai Campus has won a spot at Intelak Aviation & Travel Incubator for their cohort 3 program alongside a seed fund of AED 50,000/-. The event held on 22nd January 2018 Led by the Emirates Group, GE, and Dubai Tourism, Intelak is a hub that will inspire and develop teams to become part of the conversation in travel and aviation industry. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
2. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize for their Block Chain idea in Start up weekend organized by Google for Entrepreneurs.Techstars Startup Weekend Dubai x INFINITI Smart Cities was a 54-hour event powered by Google for Entrepreneurs designed to provide superior experiential education for technical and non-technical entrepreneurs. The competition held from 25th-27th January, 2018. AuoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and the seller. Team AutoChain won 6 months incubation program from RAK Incubators and a one year trading license
3. Team IFOR consists of BPDC students Mohammed Suhail, Mishika, Ashlyn D'Souza, Rifah Mohamed, Parv Khandelwal, Sarthak Bhooshan, Anudeepsekhar Bolimera, Adithya Pradeep Nair and Saptadeep Debnath showcased an "Autonomous flying drone to clear fog and smog" and won the Judge's Choice award and Cash Prize of AED 10000 in Robotics and Electronics Category in the INNOVATOR 2018 show held at Abu Dhabi from 1st to 7th Feb 2018. The team was mentored by Dr. V. Kalaichelvi, Asst.Prof, EEE, BPDC.
4. Team of students namely Abinaya, Krishna, Jithin and Sripriya from Chemical Engineering Department, BPDC have secured the first runner up position in the category "VISION OF THE FUTURE" for their proposal of "BLACK GOLD FROM VEGETABLE WASTE". A prototype compost bin was developed to reduce the housing ecological footprint. The competition "INNOVATIONS FROM WASTE 2017" was organized by Dubai Municipality held on 8th February 2018. This competition was a platform for students of all ages to showcase their innovative ideas to achieve the UAE Sustainability Goals 2021. The team was mentored by Dr. B.G. Prakash Kumar, Faculty, Chemical Engineering, BPDC.
5. Team Auto Chain consists of BPDC students namely Somil Mathur, Jaskanwar Singh, Sujith Sizon, Tushar Agarwal and Jayant Panwar won the First Prize of \$ 4000 in the IOT + Smart Cities category and Second Prize of \$ 5000 in Big Battles category in Seaside Startup Summit organized by RAK incubation and accelerator held from 8th to 12th February 2018, attracted 500 participants, 300 startup owners and 50 investors. His Highness Sheikh Saud Bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras - Al Khaimah inaugurated the event. AutoChain is a decentralized car dealing platform that is aimed at building trust between the buyer and seller. The team was featured in Ajman FM and Armenian TV. Team AutoChain advised by Dr Sankaram, Mechanical department, BPDC and Dr Santoshkumar, CSE department, BPDC.
6. Saugaat Allabadi, IV year CSE, BPDC along other 3 university students secured 2 position out of 30 teams and won a cash prize of AED 15000 in UAE Hackathon competition, the country's biggest data analysis challenge held on 11th-13th February 2018 which was conducted by Telecommunications Regulatory Authority.
7. On 16th February, 2018, a group of Students from BPDC and Faculty Incharge Dr. Geetha participated in a fund raiser 3 km walk event "Dubai cares, Walk for Education".
8. Rida Khan, IV year CSE, BPDC student won the 1st Runner Up prize in Sci-Tech Student Research Seminar Series for her title " Analysis of Airlines' User Tweets To Understand Consumer Sentiment" held on 28th February 2018 at Amity University, Dubai. Dr. Siddhaling Urolagin, Faculty , CSE, BPDC was the supervisor.

9. Mantra awards are held every year in all the BITS campuses these awards were instituted by CEL, in 2009, to recognize and reward outstanding students who have demonstrated extraordinary leadership potential and/or entrepreneurial initiative. The following students are the Mantra Award Winners from Dubai Campus for 2017-18. RAHUL JAIN won Outstanding Leadership- Male, SHARON ALDRIN won Outstanding Leadership- Female, HARSHAL MITTAL won Social Leadership, GOWTHAM.S won Entrepreneur Of The Year.
10. BITS Pilani, Dubai Campus team of Abirami Iyer and Atul Krishnan from Expressions (The Public Speaking and Literary Club) stood 4th in a pool of 30+ teams in the inter DIAC university debating competition conducted by American University in the Emirates on Thursday, 1 March 2018. The debate competition followed the American Parliamentary format according to which the duo had to present three impromptu speeches of 8 to 10 minutes each.
11. Team PaySync from BPDC consists of students Naman Kamra, Vedant Bajaj, Ritwick D Souza, Saugaat Allabadi and Shaurya Sood were participated in a two-day Hackathon, Hack @The Track 2018 (powered by AngelHack) at Bahrain International Circuit, Bahrain on 7-8th March 2018 organized by American Express Middle East, in partnership with Unbound Global and IBM. The Team PaySync from BPDC secured 1st position at the event, bagging the Grand Prize of \$20,000. The participants were from Kuwait, Lebanon, Jordan, Saudi Arabia, Egypt and UAE and were challenged to build a solution that makes digital payments more appealing, accessible and relevant.
12. HULT Prize is the world's biggest students competition, which records a massive participation of more than 100,000 students from over 150 countries. CIIE at BPDC hosts the campus rounds for HULT Prize and provides the teams a platform to work on their ideas by arranging a workspace for their discussions. It was managed by the HULT Prize Campus Co-ordinator, Rhea Remesh ,3rd year CSE. The HULT Prize challenge this year was to harness the power of Energy to transform the lives of millions around the world. Team Metamorph from BPDC comprising of Jaskanwar Singh (CS), Urvashi Satwani (Chemical), Somil Mathur (CS) and Tushar Agrawal (CS) was placed first at BPDC and represented BITS Pilani Dubai Campus at the regional finals held on 9th -10th March 2018 at the HULT Business School, Dubai. The team Metamorph were chosen among TOP 6 teams, out of all the teams from countries like US, Canada, UK, India, Pakistan, Nepal, Lebanon, Turkey, Kenya, Nigeria, Beirut (among a few) to compete in the finals. This feat has not been accomplished by any BITS Pilani Campuses in the history of 10 year old HULT Prize. This is indeed an achievement for our campus and BITS Pilani.
13. The students Shaleen Bengani, Anchit Pandey and Mohammed Shoab from CSE department, BPDC participated in the 8th Gulf Programming Competition held on 22nd March 2018 at Zayed University and have secured the first position. The competition was a five hour continuous tough and competitive coding competition. This year there were 42 participants from UAE, Saudi, Kuwait and Oman. BPDC students solved the maximum number of questions (6 out of 10) in the shortest time. The students were awarded a trophy by the Vice President of Zayed University Prof. Reyadh AlMehaideb. They were also given a cash prize of AED 2000 each. The team was mentored by Dr Sujala D. Shetty, Asst.Prof, CSE, BPDC.
14. StartAD, the innovation and entrepreneurship platform anchored at New York University, Abu Dhabi, held a Startup Showcase event for the inaugural Beyond the Pitch Program on 16th April 2018. The ceremony marked the completion of a six-week journey, with 17 student teams from more than 11 universities across **the UAE convening as finalists at startAD's co-working space** to showcase their startup projects. The BPDC team AutoChain comprising of Jaskanwar Singh, Somil Mathur, Jayant Panwar, Tushar Agarwal and Sujith Sizon **won \$1,500 for Best Pitch with a goal of creating UAE's first block-chain car platform.** Team AutoChain has gathered support from RAK Incubator and the Ministry of Economy, UAE.
15. BPDC Students team MediFile comprising of Rajdeep Ghosh, Sarthak Bhooshan Devjani, Ashwin Mohata, Parv Khandelwal and Anubhav Gupta won the 2nd Prize at Techstars Startup Weekend Dubai - University Edition 2018. It was a 54-hour event powered by Google for Entrepreneurs held from 19th to 21st April, 2018. The team bagged the 2nd position, winning a 3 month incubation from RAK Incubators, a 2 month platform provide by Unbox Workspace and 2 Academy track tickets. MediFile is decentralised platform where users can easily store and access their health records at a single place aimed at empowering the patients.
16. BECO Capital is one of the most prominent Venture Capitalist firm in UAE with significant investments in major companies including Careem and Property finder. Falcon Hack Challenge held from 20th to 21st April 2018 organized by BECO, consisted of solving various real time Programming Challenges posted by multiple organizations on Github platform. Within a period of one day, participants had to show the demo of their solutions for any one of the challenges posted on the Github platform. BPDC team comprising of Mihir Prabhudesai, Dev Gupta and Mridul Bhandari were able to solve two of the problems with their prototype based on open ended Chatbot. They received a one-on-one mentorship with the Microsoft Global Head of AI - Dr. Wee Hyong Tok along with incubation and internship opportunities at BECO Capital.

17. BPDC team got shortlisted from the first SOLAR DECATHLON MIDDLE EAST to participate in SECOND SOLAR DECATHLON MIDDLE EAST (SDME) to be held in November 2018 and in 2020. On 30th April 2018, the announcement was made at the Second International Workshop, which Dubai Water and Electricity Authority (DEWA) organised for the 21 teams from 36 universities in 15 countries participating in the first competition.
18. 11 teams from BITS Pilani Dubai Campus Participated and Presented their research work in Finals of 6th Undergraduate Research Competition conducted by Abu Dhabi University held on 30th April 2018. Around 300 papers were shortlisted for Finals from a pool of over 900 papers. 2 teams have secured prestigious 1st and 2nd place in Computer Engineering and IT section. First Prize of AED 5000 won by Sarthak Sethi in Computer Engineering and IT section mentored by Dr. Jagadish Nayak. Second Prize of AED 2500 won by Shaleen Bengani and Mihir Prabhudesai in Computer Engineering and IT section mentored by Dr. Siddhaling Urolagin.
19. AutoChain Team from BITS Pilani Dubai Campus was chosen to be a part of the UAE Ministry of Economy National Program for Supporting Young and Innovative Companies. In the presence of H.E. Eng. Sultan bin Saeed Al Mansoori, UAE Minister of Economy and H.E Sarah bint Yousif Al Amiri, Minister of State for Advanced Sciences, The Ministry of Economy (MoE), in partnership with 15 government and private sector entities, launched the National Program for Supporting Young Innovative Companies. Jaskanwar Singh and Tushar Agarwal from BPDC presented AutoChain to H.E. Eng. Sultan bin Saeed Al Mansoori, UAE Minister of Economy. The team consisting of Sujith Sizon, Somil Mathur, Jaskanwar Singh, Jayant Panwar and Tushar Agarwal received a special commendation from H.E Sarah bint Yousif Al Amiri, Minister of State for Advanced Sciences.
20. 3 students from BITS Pilani Dubai Campus had participated in Annual NYUAD International Hackathon is a three-day programming marathon, during which renowned international computer science professors, founders of successful startups, technology professionals, and venture capitalists come together at NYUAD to lead teams of talented computer science students from all over the world, to create mobile and web applications. The teams develop innovative applications relevant to diverse fields such as health, education, film, music, business, and science for the benefit of social good in the Arab World. This year's edition of the hackathon took place from 27th April - 29th April 2018 at New York University , Abu Dhabi. **Alina Zaidi** , along with the rest of her team, secured the 3rd place with her project known as MedLughati. MedLughati is a platform that assists refugees and asylum seekers in communicating with healthcare professionals using machine learning and natural language processing. **Rewant Verma** , along with his team, secured the 1st place with his application known as Dawa, tackling counterfeit drugs in the region using blockchain based pharmaceutical distribution. **Eshwaran Venkat** , along with his team, participated and presented the project Kuwaikeb Small Planet , a goal based activity game that bridges the physical and digital world to positively influence good habits in children.
21. 3 Students AMEENA MOHAMMED SULAIMAN, GULAMALIWALA JUZAR HATIM and SHAIK AFREEN AARZA from BITS Pilani Dubai Campus won third prize for their project titled " IoT based autonomous watering and manuring for plants " in an event called Show and Tech 2018 conducted by "The Assembly" on 05th May 2018. There were 25 projects from all over UAE displayed in the event. This event is conducted to make future technology to UAE. The event was attended by industry personnel. One important Message the winning students conveyed is that : The Social Impact and Usefulness of the Project is very important than volume or size of the project. A Simple project with high social impact is the best to be considered.
22. BITS Pilani Dubai campus shined in the Inter University Sports cup 2018 held from 6th to 9th May, 2018 organized for the first time by AMITY University Dubai. BITS Girls Throwball, Badminton and Cricket teams secured the first place and Lawn tennis Boys and Cricket boys were the runners up. Team Members: Throwball (Aishwarya-Captain, Rashmitha, Gayathri, Rishika, Prajna, Sharon, Malvika, Shreya, Shifa, Navisha, Meena, Husna); Badminton Girls (Arosha-Captain, Spoorthy, Kshama, Sanjana); Cricket Girls (Sharon-Captain, Shivani-UAE Player, Malvika, Chinnu, Ambika, Gayathri, Prajna, Kshama, Anandi, Nupur, Arshiya, Husna, Meena);Badminton Boys (Akshai-Captain, Gautam, Yash, Renoy, Aashay.); Cricket Boys (Pavan-Captain, Yasasvi, Nipun, Srihari, Kishore, Shivram, Jatin, Anand, Vishvanth, Rishab, Yash, Kartikey); Tennis Boys (Adam-Captain, Rahul, Kevin, Anubhav, Indraneel).
23. BPDC Student Sarthak Sethi has won the James Dyson Award UAE Competition. The James Dyson Award is an international design award that celebrates, encourages and inspires the next generation of design engineers. It's open to current and recent design engineering students, and is run by the James Dyson Foundation, James Dyson's charitable trust, as part of its mission to get young people excited about design engineering. Out of hundreds of entries across the world, project "Smart Biometric Ring" from BITS secured 2nd position at the JDA UAE competition. Award ceremony for the UAE regional level took place at One&Only Royal Mirage, Dubai on 5th September 2018. Teams were also interviewed by Pulse95 radio station, as well as major newspapers. Dyson will now announce top 20 projects on 21st of September which

will be selected from the pool of national winners and runners up from each region. At the end on 15th of November, global winner will be announced.

24. On 4th and 5th September 2018, two teams of students from Computer Science Department, BPDC participated in AI Hackathon biggest in MENA region organized by IQPC is one of the biggest event management company in the world. Team of students namely Mihir Prabhudesai, Juzar Gulamali and Dev Gupta mentored by Mr. Nand Kumar, Faculty, CS, BPDC won the first prize of Internships at Accenture, DEWA & Goodies. Team of students namely Ankita Rane, Shivani Sathe & Anandi Sekhar mentored by Dr. Sujala D. Shetty, Faculty, CS, BPDC won the third prize of Ipad Mini & Goodies from Dubai Municipality
25. BPDC Students Anchit Pandey (4th Year CS), Vrushali Patil (3rd Year ECE), Sultan Morbiwala (4th Year Mechanical), Satyarth Vaidya (4th Year CS) and Sejal Chopra (4th Year CS) has won the third Prize and Cash award of INR 2000 for their Project titled "Drone-based Smart Oil Spill Reduction and Containment" in the CSIR-CEERI's Technology Innovation Event 2018 held on 28th September 2018 at CSIR CEERI Pilani, India.
26. BPDC team AERONYX comprising Akansha Das and Ashlyn D'Souza won the Second Position and team ZUV comprising Raagashree Ravi, Komal Harish, Simran Narang, Aatrayee Bhattacharjee, Hiloni Mehta and Sabiha Shaik won the Third Position in the Techstars Global Startup Weekend Dubai, Women Edition 2018, held at DTEC Silicon Oasis, between 15th and 17th November 2018. Team AERONYX received 3 months of co-learning program from QLC in their first ever cohort and Team ZUV wins Squad Goals Smash Room Experience and extended support as well as mentorship from the Coaches and Facilitators of Startup Weekend Dubai Women Edition 2018.
27. BITS Dubai Toastmasters Club Team emerged as Champions in the Division-F Inter Club Debate Contest, a division level toastmasters debate contest which was conducted on 16th November 2018 in American University in the Emirates, UAE. BPDC team won among the 18 teams participated in the contest which are experienced teams than BPDC.
28. BPDC team NaviFly team (Aeronyx) comprising Yashodhan Naik and Shivank Gupta, secured 2nd place in Techstars Women's Start-Up Weekend, 2018, the first women's startup in the middle east held on 20th November 2018. The team have been selected amongst the top 20 teams in the world to Pitch at Propeller Shannon, Ireland. It is a aviation accelerator which has world re-known partners like Boeing, Datalex, IAA & many others. On 20th November 2018, the NaviFly representatives Yashodhan Naik and Shivank Gupta leave to Ireland to showcase their disruptive innovation. The team was mentored by Dr. Vincent Shantha Kumar, Assistant Professor, Mechanical Engineering, BPDC.
29. BPDC Team comprising Mihir Prabhudesai (CS) and Sarthak Sethi (EEE) has won the First Prize amongst 70+ participating teams all across UAE for their Low-Computation Algorithmic Solution for the task of Speaker Recognition in the 2 day coding event Google Developer Group, Codathon for Developers of all ages across UAE was held on 23rd and 24th November 2018. The event comprised of solving Algorithmic Challenges for pre-decided tasks ranging from Voice Biometrics to Quantam Cryptography. They were also awarded 25,000 AED Cash Prize by Emirates NBD for their win.
30. BPDC team along with Romanian University (Team EFdeN) reached the final stage of first SOLAR DECATHLON MIDDLE EAST held in Dubai and Secured 4th Place in the world. Students Actively Involved were Jerin Jacob (Dubai Team Lead), Mitesh Aswani, Mohammed Shamroukh, Shubhankan Mukherjee, Nikitha Rajendran, Kartik Math, Pranay Addepalli, Neeraja Narayanswamy, Suyash Agarwal, Smrithi Nagesh, Avani Mishra & Karthika Kumar. BPDC faculty Dr. Gomathi Bhavani, Dr. Shashank Khurana & Dr. Vincent Shantha Kumar were the mentors. The team won numerous awards throughout the competition, and placed well in every contest: 1st in Communication, 2nd in Engineering and Construction, 2nd in Comfort Conditions, 3rd in Sustainability, 4th in Energy Efficiency, 3rd for innovations in energy efficiency (sub-contest), 4th in Sustainable Transportation, 4th in House Functioning, 6th in Architecture, 2nd in the People Choice Awards, with 8923 votes (special category, no points), Placed 4th overall in the world. Was in 1st place for nearly 90% of the competition period. Won 879.47 points overall, out of a total possible 1000.
31. BITS Pilani Dubai Campus students bagged top honours of Overall Championship of BITS Sports Festival (BSF) 2018 held from 25th to 29th November 2018. The Chief Guest of Award Ceremony was an International cricketing legend, Mr. Virender Sehwag from India graced the occasion and distributed the prizes to the winners. Prof. R N Saha, Director, BPDC and Dr. Priti, Dean, SWD congratulated the winners of BSF 2018. Dr. M. Rafiuddin, Senior Manager, Sports Division, BPDC organized the BSF 2018 with excellence
32. BPDC Team Cartel which included me Sujith Sizon and Sachin Samuel, represented BITS Pilani Dubai Campus at the .edu Capture the Flag competition as a part of Hack in The Box Security Conference Series Middle East chapter and won 2nd Prize. The competition was a Jeopardy Style Capture the Flag Competition for .edu hackers and ninjas held on 27th and 28th November 2018 at Grand Hyatt, Dubai. The competition included multiple categories of challenges, including: reverse engineering, pwnable, web security, AI & blockchain, crypto, MISC (forensic, network analysis), etc. The CTF was held and hosted alongside the .pro



CTF which was organised by the XCTF League from China who are known to host some of the hardest CTF competitions in the world.

33. Students Sarthak Sethi (2nd Year) & Karan Gupta (2nd Year) from EEE department were represented BPDC with their project "Smart Energy Harvesting & On-Lane Digital Signage Display Roadways" in the Gulf Traffic 2018 a three-day conference, two days of free seminars, and a prestigious awards show held from December 4th to December 6th, 2018 at Dubai World Trade Centre.
34. Two BPDC teams are to each receive grants of up to AED 50,000, plus guidance and exposure, to advance their ideas after participating in the second cycle of the University Innovation Programme (UIP), which was conducted by Expo Live with the support of the UAE Ministry of Higher Education and Scientific Research. On successful completion of the project, the BPDC teams will receive guidance from Expo Live, as well as their universities, to advance research and development, create a business model, grow their team and potentially partner with other entities. Grantees may even have the chance to showcase their innovations to millions of people at Expo 2020 Dubai to be held from 20 October, 2020 to 10 April, 2021, with expectation to welcome 25 million visitors. Expo Live is a USD 100 million innovation and partnership programme launched by Expo 2020 Dubai to make a lasting social impact by funding, accelerating and promoting creative solutions that improve lives or preserve the planet, or both. The BPDC team Glass Microsphere-filled Polymer Composite selected in the theme "Mobility" for the project "for Glass microsphere-filled polymer composite suitable for spacecraft" was awarded the grant. Another BPDC team Power Steppers in the theme "Sustainability" for the "Charge mobile devices on the go using energy created by your body" was awarded the grant.

To appraise themselves about BITS Pilani-Dubai campus, interact with faculty, staff & students and/or to collaborate with the Institute, the following were among the notable visitors to BITS Pilani, Dubai Campus (Please see annexure B4.10 for list of those who not only visited but also delivered invited talks at Dubai Campus)

1. Professor Bhaskar Bose, Adjunct Faculty, BITS Pilani, Pilani Campus Delegation 21-Feb-18
2. Mr. Kavikrut, Chief Growth Officer at OYO Rooms, India, Entrepreneurship in the Consumer Internet Business 6-Mar-18
3. Surinder K. Suri, President, Global Economic Management and Associates, Ontario Canada, Global Capital Market Outlook Perspective 2018- 2019 27-Mar-18
4. Prof. Brendon Larson, Associate Dean, Undergraduate Studies in the Faculty of Environment, University of Waterloo, Canada Biodiversity-Why It Matters to the Human Well-Being 17-Apr-18
5. Professor S. Irudaya Rajan, CDS, Kerala, India, Mapping International Migration Evidence from Kerala Migration Surveys, 1998-2018 3-May-18.
6. Dr. Devasmita Chakraverty, Assistant Professor, Science Education, Washington State University, USA, Why do successful people feel like impostors? 9-Sep-18
7. Dr. Ravi Ranjan, Senior Assistant Professor, Zakir Husain Delhi College, University of Delhi, India, Exploring Human Dignity as Human Rights: Perspectives from Gandhi and Ambedkar, 30-Sep-18
8. Dr. Mohan Agarwal, Professor, Business and Director Continuing Education & Community Engagement, Mena College, Dubai, Inspiring Internal Innovation in Organizations, 28-Oct-18
9. Dr. Arif Billah Dar, Assistant Professor, SMVD University , Institute of Management Technology, Ghaziabad, India, Exchange Rate: Determination and Volatility, 6-Nov-18
10. Mr. Craig Walker and Mr. Rodel Quintain, Lucy Switchgear FZE, Process plant health and safety, 22nd February, 2018
11. Dr. Udo Schwingenschloegl, KAUST, Saudi Arabia, Elemental 2D materials beyond graphene: Insights from Computational Theory, 18th April, 2018
12. Mr. Sachin Vaidya, Software Sales Manager at Honeywell Process Solutions ,Process simulation using Honeywell Unisim design, 27th September, 2018
13. Mr. Christian Cruz, TUV Nord, Abu Dhabi, How to make a CV, 15th October, 2018
14. Mr Subhash from Scan Technology along with a team from ZOHO visited and met the CS Department faculty and students. Using Zoho for Application Development, 22nd October 2018
15. Mr Chaturvedi head of IT, Al Sharawi group visited and met Faculty from CS for a discussion on pain points in the industry and Academia Industry collaboration, For a Discussion on Academia addressing Pain points in the Industry, 23rd October 2018

16. Mr. Danish Syed is currently at Harvard University, specializing in Education, Human Development and **Psychology**. "Inter-Disciplinary Programmes for Computer Science Graduates at the Premier Universities" 30th October 2018
17. David R. Nelson, Research Scientist in New York University of Abu Dhabi, Genomics of newly isolated euryhalophilic and halophilic desert green algae, 2nd May, 2018
18. Dr Chandra Shekhar, Sr Professor from BITS, Pilani, Pilani Campus ,VLSI design principles and Recent trends, 28.01.18
19. Mr. Krishna RS, EEE Engineer, Al Ghandi Electronics, External Talk about Illumination Engineering, 03.04.18.
20. Mr. Krzysztof Wolnicki from Arup Middle East, Fire Safety Engineering, 17.04.18.
21. Mr Mohammed Abdul Bari, Air Accident Investigator from General Civil Aviation, Investigation of Electrical, Electronics, Instrumentation & Communications Systems in an Aircraft Accident, 03.05.18.
22. Mr. Bharath Kamath, Abbott Laboratories, Clinical utility of Point of Care Analyzer in Healthcare setup, 18.10.18
23. **Mr. Eoin O'Loughlin from Arup Middle East, Fire Safety Engineering, 30.10.18**
24. Dr Hamad Karki & Dr Amit Shukla, Khalifa University, Abu Dhabi, Robotics and Smart Sensing in Oil and Gas Industry, 15.10.2018
25. Mr. Pir Akram, Proto21, Dubai, Demystifying Additive Manufacturing, 21.10.2018
26. Prof. Raynald Gauvin, McGill University, Canada. Scanning Transmission Electron Microscopy (STEM), 14.08.2018
27. Mr. Khaled, ARUP, Dubai, Building Services, 30.10.2018
28. Dr. Nahar, President, Desert Science Institute, Jodhpur, India, Solar Energy Applications. 19-11-2018
29. Prof. Debjyoti Banerjee from Texas A & M University, USA, Cheap Nano-Manufacturing Technique (Additives) for Clean Energy" by . 9/7/2018
30. Mr. Abin Thomas, Senior Technical Engineer, DNV GL Digital Solutions, Offshore engineering: Brief Overview of Practices, 25.11.2018

During the year 2017 -18, 8 students underwent FD Thesis & Dissertation at off -campus locations:

1. Amritha Seshadri- BITS, Pilani - India
2. Shivani - ETISALAT - Dubai.
3. Saptadeep Debnath- Hochschule Fulda University of Applied Sciences, Fulda, Germany
4. Srishti Gupta-, Control Systems Laboratory, Vignyanakancha Research Centre, Hyderabad, India
5. Angel Mathew- BITS ,Pilani – India
6. Shresh Kumar Mathur- National University of Singapore, Singapore
7. Satyarth Vaidya- BITS, Pilani - India
8. Mohammed Azeem Gafoor - Sector 72, Semi-Conductor Laboratory. India.

Following faculty members delivered invited talks, reviewed proposals, reviewed papers for prestigious journals, served as International Advisory members chaired conference sessions during the 2017-2018

1. Dr. Namita Khanna, Synthetic Biology meets Synthetic Chemistry: In vivo activation of an apo-metalloenzyme using synthetic cofactors. Genome Systems VII at Centre for Genomics and Systems Biology, New York University Abu Dhabi, UAE, 7th- 8th February 2018 (Invited talk)
2. Dr. Neeru Sood, "Microbes for better tomorrow" at the International Conference on Microbes for Better Tomorrow, Dr. D.Y. Patil University, Pune, India, 17th to 19th February 2018 (invited talk)
3. Dr. Mainak Dutta, Deciphering the lipidome: a necessary step towards understanding the complexity of biological systems at Research Institute of Medical & Health Sciences, University of Sharjah, Sharjah, UAE on 14th Feb, 2018 (invited talk)

4. Dr. Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Microbes for Better Tomorrow 2018 during 17th to 19th February 2018 held at Dr. D.Y. Patil University, Pune, India. (Invited talk)
5. Dr. Trupti Gokhale, "Synthesis of metal Nanoparticles for Applications in Sustained Agriculture" at the International Conference on Nanotechnology for Human Welfare ( ICNHW-2018) held at H.V. Desai College, Pune, India during 1st to 2nd February 2018.(Invited Talk)
6. Dr. B. G. Prakash Kumar acted as an international advisory committee member for First International Conference on Energy and Environment: Global Challenges (ICEE - 2018), 9-10 March 2018, National Institute of Technology Calicut, India.
7. **Dr. Bharat B. Gulyani was invited to deliver a keynote address "Data Mining Techniques: Applications in Chemical Engineering "** at 3<sup>rd</sup> **Student Research Colloquium on "Advances in Engineering & IT" on 11<sup>th</sup>& 12<sup>th</sup> April, 2018, at the Manipal Academy of Higher Education, Dubai.**
8. Dr. Nishant Pandya invited as session chair at 3<sup>rd</sup> **Student Research Colloquium on "Advances in Engineering & IT" on 11<sup>th</sup>& 12<sup>th</sup> April, 2018, at the Manipal Academy of Higher Education, Dubai.**
9. Dr. Eldhose Iype was invited as Session Chair in International Conference on Recent Advances in Fluid & Thermal Sciences (iCRAFT 2018), BITS Pilani, Dubai Campus, 5-7 Dec 2018.
10. Dr.V.Kalaichelvi reviewed two papers for International Conference on Recent Advances in Fluid and Thermal Sciences (iCRAFT 2018) organized by Mechanical Engg Dept at our Campus (5th-7th December 2018)
11. Dr Gomathi Bhavani reviewed the following papers for iCRAFT2018 (International Conference on Recent Advances in Fluid and Thermal Sciences) : **"Intelligent Control Approach for Fluid Power Transmission of a Wind Turbine System"** and **"Design, Simulation and Implementation of a single phase shunt active filter, interfacing a PV system to the distribution grid"**.
12. Dr. Mary Lourde has been a reviewer for IEEE Transactions on Reliability and reviewed a manuscript in the area of state estimation of unmanned aerial vehicle over IoT network.
13. Dr. Mary Lourde has been a reviewer for Elsevier journal of "Microprocessors and microsystems" and reviewed a manuscript on reversible ALU design.
14. Prof.K.K Singh, Dept of General Sciences /Physics gone through University Exposure Program during 20 June-20 August 2018 at Beckman Institute, University of Illinois, Urbana Champaign, USA. There he had learnt about different simulation techniques like VASP, VESTA, and Material Studio, VMD etc which is very much useful for doing research in nanomaterials to study their electronic property and study the application of nanomaterials for sensing purpose.

#### Consultancy

Faculty members from of Mechanical Engineering and Electrical and Electronics Engineering department completed the following consultancy projects successfully.

S.No	Principal Investigator	Department	Funding agency	Total sanctioned	Project Title
1	Dr.Vishal Naranje	Mechanical Engineering	Star Cement Co. LLC, Dubai	10,000 AED	Development of Mobile Application for Raw mix cost optimization
2	Dr.Vishal Naranje	Mechanical Engineering	Star Cement Co. LLC, Dubai	10,000 AED	Development of Computer Application for Prediction of Cement Strength
3	Dr. Shazia Hasan	Electrical and Electronics Engineering	Star Cement Co. LLC, Dubai	18,000 AED	Harmonic Mitigation
4	Dr. Udaya Kumar	Mechanical Engineering	Star Cement Co. LLC, Dubai	12,000 AED	Comprehensive analysis and customized solutions for Energy Auditing and Energy Conservation at Star Cement Co. LLC., Ras al-Khaimah

**B4.15.2 Professional Body Activities****ASME (American Society of Mechanical Engineers) Student Branch**

1. Mr. Pir Akram, Proto21, Dubai, Demystifying Additive Manufacturing, organized by ASME, BPDC Student Section 21.10.2018
2. Organized Building Bio-dome workshop for 3 days in which around 20 students attended

**MEA (Mechanical Engineering Association)**

1. Talk on Advanced Welding Research - 26th March 2018
2. **Engineer's Day Event** - 16th September 2018
3. Organized invited talk on Robotics and Smart Sensing in the Oil & Gas Industry - 15th October 2018
4. Organized invited talk on Fire Safety Engineering - 30th October 2018
5. Organized invited talk on Building Services - 30th October 2018

**SAE (Society of Automotive Engineers)**

- 5th Gear Automotive day is hosted by BlackHawks Motorsports the official BAJA-SAEInternational Team of BITS Pilani, Dubai Campus along with university gaming partner of the event, The Guild on the 21st and 22nd of November.
- \*August 2018 - Orientation for fresher's to know more about BAJA SAE competition and Formula SAE competition.
- - second week : Interview was hosted by core members of BlackHawks and selections of members were made based on motivation and interest in Design field, production field, marketing field.
- \*Weekly training.: Most Saturdays, BlackHawks team had meetings to train fresher's on the basics of Design Software Solid works.
- -Training for sponsorship team to contact companies were given.
- -Logistics team was given a basic understanding of logistics network and how to see each network finding the most effective path to the least effective path.
- -Compliance team was given tasks to learn the rule book. Basic understanding of importance of quality was given to juniors and how important quality is when it comes to manufacturing.
- -Importance of project management was given.
- -tried to teach and learn Advanced Product Quality Planning Process which failed due to lack of knowledge in the field.
- \*FIFTH gear automotive day a two day event was conducted on November with the aim of raising funds for team BlackHawks. It was a tie up event with the official gaming club in college The Guild and MEA.

**AOEE had organised the below events:**

1. Organised a Guest Lecture by Dr Chandra Shekhar, Sr Professor from BITS,Pilani, Pilani Campus on **VLSI design principles and Recent trends” on 28.01.18.**
2. **Organised the technical event Mindspark for “Enginuity” from 13.02.18 to 15.02.18.**
3. Organised an industrial visit to **“Emirates Transformers and Switchgear” for EEE dept on 14.03.18.**
4. Organized a workshop by Dr A R Abdul Razak on **“PSPICE” on 31st March 2018.**
5. Organised a Guest Lecture by Mr. Krishna RS, EEE Engineer, Al Ghandi Electronics on **“External Talk about Illumination Engineering” on 03.04.18.**
6. Organised a Guest Lecture by Mr. Krzysztof Wolnicki from Arup Middle East on **“Fire Safety Engineering” on 17.04.18.**
7. Organised a Guest Lecture by Mr Mohammed Abdul Bari, Air Accident Investigator from General Civil Aviation Authority on **“Investigation of Electrical, Electronics, Instrumentation & Communications Systems in an Aircraft Accident” on 03.05.18.**
8. Organised a Guest Lecture by Mr. Bharath Kamath from Abbott Laboratories on **“Clinical utility of Point of Care Analyzer in Healthcare setup” on 18.10.18.**

9. Organised a Guest Lecture by Mr. Eoin O'Loughlin from Arup Middle Easton "Fire Safety Engineering" on 30.10.18.
10. Organised the technical cum fun event "Volsted in" on 01.11.18.
11. Organised a Guest Lecture by Prof. Biswa Nath Datta from Northern Illinois University on "Computational and Optimization Methods for Active Vibration Control and Finite Element Model Updating in Structural Dynamics -Linking Mathematics to Engineering" on 04.12.18

### IEEE

1. Organized Control System Hackathon
2. Organized Infographics Contest
3. Organized Talk By Anand Swaminathan
4. Organized A Mobile Photography Contest -Photon

### IFOR Activities

1. International Aerial Robotics Competition – Mission 7 Team IFOR took part in IARC 2017 organized in Georgia. The team had designed and presented a fully autonomous drone capable of mapping and navigating through an unknown indoor environment. In 2018, all the processing is done on an onboard Nvidia Jetson TX2 computer. The UAV runs custom navigation, optical flow and various other image processing algorithms. It is equipped with a variety of onboard instruments; LiDARs and stereo camera to name a few. The team continues to develop this cutting-edge technology under the guidance of Dr. V.Kalaichelvi.
2. Team IFOR presented their achievements during Global Millenium conference 2018 from 8A.M to 4P.M on Jan 27th 2018 where Principals from leading Schools in India & UAE are invited. The team also demonstrated drone flying and IARC simulation videos during this event.
3. Team IFOR students Mr. Anudeep & Mr.Suhail demonstrated their drones for the school students workshop conducted on 28.03.2018 from 1 pm to 3.40 pm.
4. Team IFOR participated in the Innovator Show 2018 and won the Robotics and Electronics category at Innovator Show 2018 in Abu Dhabi. It was one among the handful of sophisticated projects that we took for the competition. Our proposal was a Fog prevention system using an autonomous VTOL drone. After winning the Innovator we were featured in Gulf News and various news and media entities visited us and our lab at Bits Pilani. IFOR covered in Gulf News: <http://m.gulfnews.com/news/uae/society/uae-students-build-drone%20that-clers-fog-1.2167010>.
5. Khalifa University Professors Dr. Hamad Karki Faculty Mechanical Engg.& Dr. Amit Shukla., Research Associate., Mechanical Engg visited IFOR lab and interacted with Mr.Suhail and Mr.Anudeep and Mr.Suhail explained about all IFOR related projects on 15.10.2018.
6. Team IFOR took the initiative to organize ZEUS – An FPV (First Person View) drone racing competition in collaboration with UAE FPV, an organization famous for hosting drone racing competitions in the UAE. The competition gathered participants from over 8 countries and even a Russian world champion. Test runs were conducted but due to DCAA regulations Team IFOR students were unable to conduct the final event.

### AICHe Students' chapter

AICHe (American Institute of Chemical Engineers) Students' chapter BPDC and ChESA – Chemical Engineering Students' Association

1. 27<sup>th</sup> January 2018: AICHe New Sister Chapter relationship with UC Berkeley
2. 13<sup>th</sup> February 2018: ChESA Alchemist
3. 14<sup>th</sup> February 2018: Junkyard: Poster Making from Waste (part of Enginuity '18)
4. 15<sup>th</sup> February 2018: Intercollegiate Case Study Competition (part of Enginuity '18)
5. 3<sup>rd</sup> March 2018: AICHe New Logo competition
6. 28<sup>th</sup> March 2018: AICHe Internship Panel (4<sup>th</sup> years gave an insight into the day-to-day activities during the internship program PS I & PS II)
7. 3<sup>rd</sup> March 2018: AICHe Virtual Career Fair 2018
8. 5<sup>th</sup> May 2018: Industrial Trip to Star Cement Co. LLC, Ras Al Khaimah

9. 11<sup>th</sup> September 2018: Freshman Orientation (a welcome to the batch of 2018-2022)
10. 26<sup>th</sup> September 2018: ChemFLuence: First Chemical Engineers' Social Meet
11. 25<sup>th</sup> October 2018: Industrial visit to Gulf Petrochem, Hamriya Freezone, Sharjah
12. 24<sup>th</sup> November 2018: Industrial visit to Al Khaleej Sugar Factory, JAFZA, Dubai.

#### Microsoft Tech club

Chapter active since: 2007- till now

No. of members: 50

Faculty-in-charge: Dr.S.Vadivel

#### Overview:

Most of the software industries that are part of PS-2 make use of Microsoft platforms. We do not have any elective exclusively to train the students in Microsoft platforms. Microsoft Tech club was formed to impart the knowledge of major Microsoft products to the students using Tech Leads of the club so that they can apply the tools and acquire valuable knowledge that will be of immense help when they join PS-2 as well as when they appear for placement interviews.

S. No	Name	Position
1	Ahmad Uzair	president
2	Haritha Hariskrishnan	Acting president
3	Mirdul Bhandari	Vice president
4	Tech Lead	Anubhav Gupta
5	AAKANSHA MATHUR	Membership Chair
6	Piyush Khandelwal	Tech Lead
7	Parth Poply	Web Lead
8	Mohammed Shoaib	Web lead

Name of the event	Date	Name of the Activity	No of Participated Students
CodeBlitz(Enginuity)	13-02-18	Each participating team (2 Members per team) is given a series of programs with very trivial and subtle errors (bugs). The participant would have to identify the bugs and debug the code to get the correct output for all valid test cases	10 teams (20 students)
Frynapse(Enginuity)	15-02-18	A virtual scavenger hunt where the teams have to decode the answer from the given clues. Teams can make use of the internet	14 teams (28 students)
Introduction to Azure(Enginuity)	14-02-18	Introduction to Cloud computing platform by Microsoft and services offered by the platform with a hands-on lab session	30
Introduction to GitHub and Visual Studio Code	05-03-18	An introduction to Github – repository and source control versioning platform and Visual Studio Code – a Code editor by Microsoft	15
Introduction to Web Development with Angular	Semester long in Second Semester	Introduction to web development with Angular	15
Global Azure Bootcamp	21-04-18	A set of sessions on Microsoft Azure covering different topics like Business Intelligence, Web Apps, Mobile App Development, Web Development	35

**Linux Users Group:**

The Linux Users group was started in Oct. 2005. The registrations are free and open to all BPDC students. The group also provided resource material on UNIX Commands and Editor for first year students and Installation related assistance for UBUNTU OS. This is being mentored by Prof B. Vijayakumar.

**BPDC ACM Student Chapter:**

Association for Computing Machinery – BPDC Chapter

Chapter Review – I Sem 2018-19

Chapter active since: 2010-2011

No. of members (2010 till present): 200

Active Paid Members: 37 (Student Membership Fee: AED 80 ; Professional Membership Fee: AED 300)

**Office Bearers:**

Faculty-in-Charge: Dr. Sujala D. Shetty

S. No	Name	Position
1	SHALEEN BENGANI	Chair
2	AYUB AMIR	Co-Chair
3	ESHWARAN V	Vice Chair
4	SHAIK SABIHA	Secretary
5	AAKANSHA MATHUR	Membership Chair
6	ANUBHAV GUPTA	Webmaster
7	CHETTUTHARA SULAIMAN TANZEEHA	Executive Council
8	NILANCHAL NILAMADHAB	
9	RISHABH KAUSHIK	
10	VIVEKANANDAN S	
11	VENKATA PRASANTH SAI KONDA	

**Events Organised:**

- During the month of March 2018, a series of workshops were conducted on the following topics:
  - March 5th – Monday (8,9) : Coding For Google Summer Of Code- *Ritwick D'Souza(IV CS)*
  - March 6th - Tuesday (8,9) : Peek Into Blockchain Technology & Ethereum Platform – Saugaat(IV CS) and Gayathri (III CS)
  - March 12th - Monday (8,9) : VR Development - Varun Sangani (IV CS)
  - March 13th - Tuesday (8,9) : Introduction to Game Development – Rewant Verma (IV CS)
  - March 19th - Monday (8,9) : Excel as a Business Tool – Sanjana Manoj, Sanjeev Gopalkrishna, Kunal Mehta (IV CS)
  - March 20th - Tuesday (8,9) : Hackathons-All you need to know – Jaskanwar Singh ,Tushar Agarwal (IIInd CS)
  - March 26th - Monday (8,9) : Introduction to Linux – Adhitya R (IV CS), Amir Ayub (III CS)
  - March 27th - Tuesday (8,9) : Hackathon on Game Dev - Rewant Verma (IV CS)
- ACM conducted an interactive chat with Mr Zaidali Khoja. Mr. Zaidali Khoja, is an alumnus of BPDC batch of 2013-17, he was be on campus on 15th March 2018 and he had an informal interaction with the students. Zaidali graduated as the gold medalist from BPDC in 2017 and is currently studying at Indian Institute of Management Bangalore.
- ACM conducted a 36 Hour workshop on Competitive coding starting from) October 2017 – February 2018.
- ACM conducted a 10 week Python workshop from September 2018-December 2018.

5. A roadshow was arranged to Emirates Innovation Lab on November 19th 2018, where students were exposed to the innovative ideas used in Emirates.
6. Build your PC workshop conducted on October 29th 2018.

Association Name: Flummoxed Quizzing Association

Activities : Flummoxed 2018

S.No.	Event Name	Date/Duration	Description
01	Triviance	February 2018	Held during Engenuity'18. Saw over 80 participants from various universities compete in a quiz focused on all things science, technology, and business.
02	Chai Pe Challenge	February 2018	Organized in association with the Cochin Quiz Club and the Dubai Quizzing Association. Professionals as well as Amateur Quizzers from the university and elsewhere took part in this event. The winners flew to Cochin for the finals.
03	Marvel vs DC – A Comic Affair	April 2018	Held during Jashn'18, this quiz was based on the overall theme of the festival, La Comic Fiesta. An innovative take on quizzing, this event saw over 100 students from across the UAE.
04	Quiz Festival	April 2018	A 3 day quizzing festival was organized right towards the end of the semester, culminating in our annual B'Quizzed event.
05	League of Champions	January 2018 – May 2018	This was a continuation of the online quizzing league which saw over 300 participants from across the world compete against each other on a variety of quizzes.
06	Weekly Sessions	February 2018 - Present	The club organizes weekly sessions to train students for upcoming competitions.
07	TATA Crucibles	May 2018	Helped the team from TATA Crucibles conduct and organize this event at our campus. Our teams secured first and third place in this event which saw over 500 participants from across the UAE compete for cash prizes worth 30,000 AED.
08	Pop Fiesta	October 2018	Conducted during Sparks 2018, this event saw over 50 participants compete against each other in a fun quiz with the central theme being Pop Culture.
09	TAPMI Quiz on the Beach	October 2018	Helped promote this event, in partnership with TAPMI and Manipal. Our team secured first place in the event and shall compete in the International Finals this January.
10	The Wolf of Wallstreet	September 2018	Added a quizzing aspect to the annual stock simulation event organized by CIIED where the finalists could bid on questions and use the money to buy stock.

B4.15.3: Center for Innovation, Incubation and Entrepreneurship, Dubai (CIIED)

Report for the year 2018 is appended below

New Venture Creation course was offered to the students 1st Sem 2018 -19

Five students (3 teams) from dubai campus enrolled for the NVC course. Its was heartening to know three of the students secured A grade with one student topping the course across the four campuses.

Orientation (17th September)

CIIED conducted its introduction session on 17th September, 2018. This year, rather than the traditional enrolment drive led each year, a work area was set up for about more than 4 hours, wherein the 'Marketing and



**Content Writing team'** , persistently resolved every one of the questions and inquiries of intrigued and imminent individuals. Accordingly, this year we have around 20 new individuals enlisted.

#### **Interaction with Rizwan Sajan(18 September )**

The University hosted an interactive session with Rizwan Sajan, Founder and Chairman of Danube on 18th of September. The program took place for an hour and shed light into various subjects ranging from the inception of the company to the initial struggles that it had to overcome over the years before meeting and gaining the success it does today.

Mr. Sajan shared his knowledge, born out of years of experience in the field, and enlightened the audience by providing insights on various topics. **The talk underscored many key points for today's youth with the highlight** being the emphasis on education. He cited many instances from his own life that served as lessons for the audience, especially the budding entrepreneurs. The session also comprised of participation from the audience who asked an array of questions and played a key role in making the event a success.

#### **The Wolf of WallStreet (15th October to 28thOctober)**

Round 1 – Around 51 teams from various universities participated in the Online round that enveloped live trading based on the U.S.A stock market. Followed by the initial week of long stretches of virtual exchanging, the top 20 teams shortlisted at the end of 5 days were further promoted to Round 2.

Round 2 – The 2nd round facilitated about 20 groups, from various campuses all around Dubai, the shortlisted members put resources into the USA Stock Market guided by the brokers. Furthermore, Round 2 witnessed the dispatch of 6 Pioneering Projects and 2 mindboggling Quiz Sessions. The Quiz Sessions provided the participants a fair chance to get a bonus score based on their general knowledge.

#### **Interaction with Alumni on Startups (28th October)**

Mr. Ganesh Shankar visited the campus on October 28 for an interaction with the students. He is the Managing director at FluxGen Engineering Technologies and also an Alumnus of BITS Pilani, Goa. His interaction assisted the current students involved in various projects in the University and also gave them the insight to improve and leverage the projects further. Moreover, his talk on entrepreneurship highly benefited the students and shed light on the process of developing a startup and accelerating the initiative within a period of time.

#### **#SomedayIwill – Instagram Initiative (February -December 2018)**

'#SomedayIwill' initiative by CIIED on Instagram was pursued further this month, in order to shed light on the inspirational people that reside within our own college. For every one of those with a dream for the future, or presumably only an inspirational story to tell, this endeavour was and still is turned out to be very fruitful in inculcating creativity by broadening horizons of the basic mindset. This activity not only changes ones' perception about the future, but also does its part by being the best medium for conveying ideas about the future. The featured students were:

- 1) Sarthak Sethi
- 2) Vrushali Patil

#### **HULT Prize 2017 -2018 (6th December)**

The Hult Prize, a renowned non-profit initiative held its 10th Annual Challenge, with the objective of discovering promising, driven, ambitious and innovative social entrepreneurs. It encourages young and imaginative personalities to crack solutions to various pressing global challenges, with pioneering ideas to nurture sustainable start-up ventures.

The 2018 challenge was “For Us, By Us” Youth Unemployment, intriguing the minds of young budding engineers, to find alternative solutions to bridge the gap between education and learning.

The first round was held in BITS Pilani, Dubai Campus on December 6, 2018, with 10 zealous and skilled teams in participation.

The distinguished panel of judges included: Sridhar Venkataraman, Relationship Marketing Coach and Franchise Owner, Accelerate Asentive UAE, Nikhil Soneja, Director at Halcyon Technologies FZC Act. Harsha Joseph, Audit Associate at KPMG Lower Gulf, Abdul Matheen Yousuf, founder and CEO at Airspace Block chain Company, Director at Project You who took time off their busy schedules, to give the participating teams constructive feedback and suggestions to transform their ideas into reality.

Three teams, exhibited massive potential, and outperformed, the other participating teams with their prospective viewpoints and strategies:

The first position was secured by Team Wildcats(Sameeksha Amin, Ismath Illiyas,Naman Sharma and Anagahnanda SantoshKumar).

Team Metamorph (Urvashi Satwani, Jaskanwar Singh, Tushar Agarwal and Somil Mathur).

bagged the second position.

The third place was won by Team Engineered Solutions ( Urvashi Sharma , Ishaq Shakir and John Reymond ) . These teams, will face the winners of the various Campus Rounds in the Regionals that is tentatively scheduled to be held, early 2019. In all, HULT Prize 2018, yet again, provided a platform to like-minded young individuals, to collaborate and identify pertinent solutions, to the numerous concerns, around the globe.

#### **KREGZO INTERNSHIP OPPURTUNITIES:**

Kregzo is an online incubator and they are looking to give opportunities to the students of BITS Dubai , for the roles of Marketing , Designing and a brand ambassador.

#### **MANTRA AWARDS 2018:**

**The winners of this year's Mantra Awards from Bits Dubai are as follows:**

- 1- Outstanding Leadership Male - Rahul Jain
- 2- Outstanding Leadership Female -Sharon John
- 3- Entrepreneur of the year - GowthamSundaresan
- 4- Social leader of the year - Harshal Mittal
- 5- Innovator of the year - MihirPrabhudesai.

#### **AUS SHARK TANK PITCH COMPETITION:**

The American University of Sharjah had hosted an inter university pitching competition on 12th April 2018. The mail had been forwarded to all the CIIED Members and a maximum of 2 teams could represent each university .

Two great teams – 1) SarthakSethi ,ChiragGarg and NeteeshBhati.

2) ShivangGulati, KartickSultania, Rahul Manickam and SaugaatAllabadi.

The CIIED team had arranged for the transport for the students from Bits Pilani Dubai to AUS Sharjah and back.

#### **BPDC CASE CHALLENGE 2018**

Like last year we had a preliminary round where the teams that registered for the challenge received the case on 13th March 2018. There were 6 teams which registered for the competition. Each team comprised of 2 members. The teams were given a whole week to work and develop an effective solution to the case presented to them. **The case 'DeBeers's Diamond Dilemma' for the preliminary was taken from MIT Sloan School of Management.** On 20th March the last entry for the prelims was taken in and the results announced the following week. The teams that made it past the prelims were called for the final which was held on April 8<sup>th</sup> 2018 in G23.

4 teams made it to the final and they were-

- 1) Shivang Gulati and Kartik Sultania
- 2) Athul Krishnan and Tejas Kulkarni
- 3) Nawaz Muallim and Sidra Raihan
- 4) Rajdeep Ghosh and Sarthak Booshan

For the final round the teams were given 2 hours to work on a new case study and given 5 minutes to pitch the idea followed by 3 minutes for the Q&A session. **The case was based on 'Facebook** taken from the Stanford Business School and present it to the judging panel which comprised of Dr Trupti, Dr Natesa and Dr Srinivas.

The teams were evaluated on Feasibility of the idea, Innovation, Competitive advantage, Effectiveness in terms of Customer Attraction and Overall Presentation. After an excellent set of presentations, Shivang and his team-mate Kartik won the BPDC Case Challenge 2018. They got a cash prize of AED 150 as well as certificates.

Marketing Strategy:

Posting on social media platforms and posters around campus.

A post on what a case challenge is all about and the benefits of solving one.

Also shared to the CIIED Members and other students through the mailing list and webmaster.

**BITScoin CHALLENGE – 7th February'18**

CIIED conducted its first event for the semester called the BITScoin challenge. The team brainstormed on several ideas before finalizing on this. Participants would get a fixed amount of BITSnote which could be used to purchase BITScoin, whose price fluctuated using supply and demand curves. We wanted to engage more of the CIIED members into the association and hence gave them the first 1000 BITSnote for free, after which subsequent 1000 was charged AED5. The team/participant who had made the most money would be declared winner.

Marketing – Posters had been put up on various locations on campus as well as on the facebook pages(rules as well).

A stall was put up near the vending machine. for 2 days – Monday and Tuesday(5th and 6th Feb) for people to register and clear any queries).

25 people took part from which Mahathi Kishore emerged victorious and walked away with a cash prize of AED 100.

**B4.15.4 PRACTICE SCHOOL****Practice School Programme**

All first degree students have the option of Practice School. The past statistics show that almost all the students opt for this programme. PS-II was conducted at 89 stations with 203 students and 32 faculty during January – July 2018 and at 57 stations with 192 students and 27 faculty during August 2018 -January 2019. PS-I was conducted at 80 stations with 310 students and 22 faculty during June - August 2018.

Categorization of PS stations is given below:

S. No.	Category of Organizations	No. of Organizations	
		PS-II	PS-I
1	Banks & other Financial Institutions	00	00
2.	Design, Development, Consultancy and Software Organization.	30	32
3	Trading	08	09
4	Production, Manufacturing and Maintenance	32	30
5	Other	00	09
<b>Total</b>		<b>70</b>	<b>80</b>

With the present annual PS intake of 705 students, the PS programme covers almost entire eligible student population of the Institute. It is worthy to note that the Practice School operation at the Dubai Campus has been conducted successfully since 2002. The statistical details of the distribution of students and faculty at PS-I stations are given in Annexure B4-15 followed by the details of the Statistics of PS-II are given in Annexure B4-16. The Growth statistics of PS-I, PS-II are given in Annexure B4-17, while facilities available at various PS-II stations are given in Annexure B4-18. The growth of PS stations is depicted in the graph 1.

Following is the breakup of students who were registered in PS-I, PS-II.

PS-I	Summer Term 2018	310
PS-III	Semester 2017-2018	203
PS-III	Semester 2018-2019	192
<b>Total</b>		<b>705</b>

### PS-II Assignments: Institute's Contribution to Industrial Development

Apart from developing skills in Professional judgement, data-handling, documentation, decision making ability etc. in students, the PS-II assignments also relate to real life problems of the host organisation. PS-II assignments listed in Annexure B4-19 were completed by the students at their respective PS-II stations during the year 2018.

These assignments have been implemented to fulfil the ongoing production, modernization, design, development and research needs of the participating industries; thus, directly contributing to the requirements of industrial R & D.

#### Stipend

In appreciation of the contribution made by our students towards the professional wellbeing of the organization, a stipend / out of pocket allowance is paid to the students by the organizations. In addition, other facilities like accommodation, subsidized lunch, transportation, insurance, TA & DA, foreign travel expenses are also provided by some of the organizations.

During the year under review, the PS activities grew further with the some new PS II stations (Table1).

Graph 1

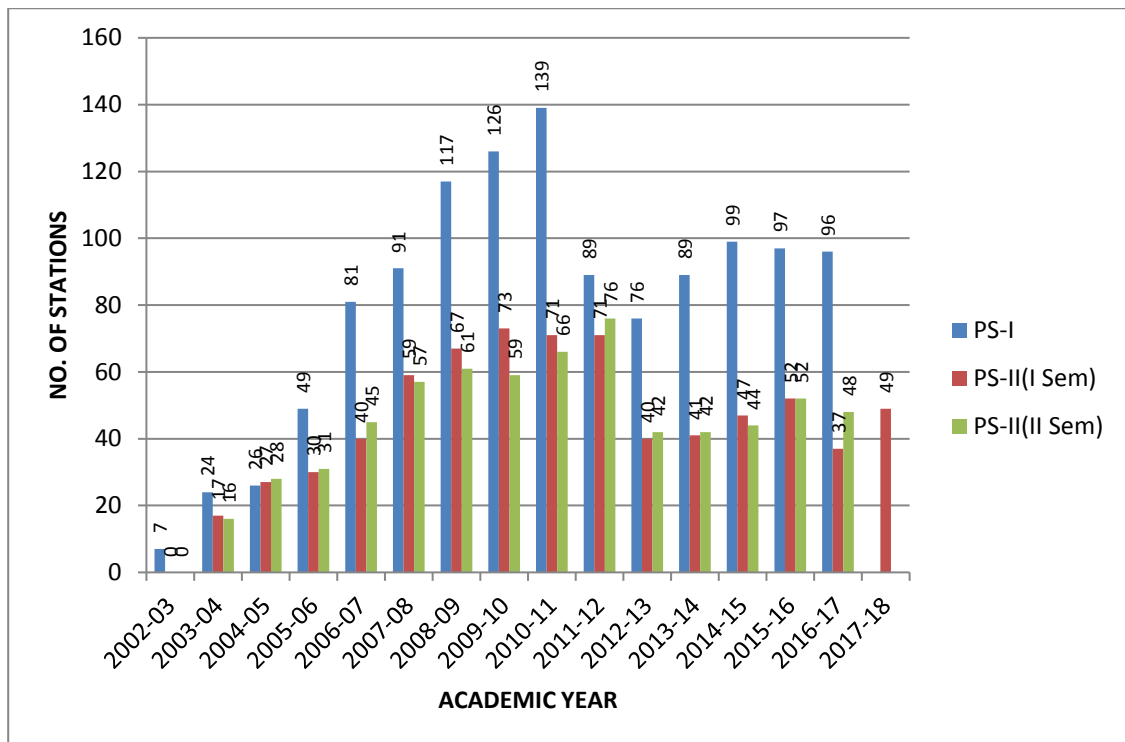


Table1 PS-II Stations Added during the year 2018

S. No.	Name of the PSII Station	Out of pocket allowance in AED & Others Facilities
1	Arc Engineering LLC, UAQ	1500
2	Aries Marine Engineering Services, Sharjah	-
3	Astrid Oasis, Dubai	500
4	Berkeley Group, Dubai	2000
5	Centena Group, Dubai	1500
6	Deloitte, Dubai	2000
7	Dlink, Dubai	1000
8	Dubizzle, Dubai	3000

S. No.	Name of the PSII Station	Out of pocket allowance in AED & Others Facilities
9	Huawei, Abu Dhabi	1000
10	IQVIA (IMS Health), Dubai	4000
11	Kantar World Panel, Dubai	1000
12	Kyoto Technologies, Dubai	1000
13	McWane Gulf, Abu Dhabi	1000
14	MDS TS, Abu Dhabi	1000
15	Medley Capital, Dubai	1000
16	MMIC, Dubai	1000
17	Thomson Reuters, Dubai	4000
18	Xerox Emirates, Dubai	1500
19	Zomato Media Pvt. Ltd., Dubai	3700

## B4.16 CENTRAL FACILITIES

### B4.16.1 Central Library

BITS Pilani, Dubai Campus Library, a gateway to knowledge resources, is located in a separate building spread over two floors and area of about 29,680 sq. ft. It has a contemporary design with reading halls, reference section, stacking area, faculty lounge and digital library with 22 computers, internet browsing centre with 20 computers. The Library operations are fully automated and all the resources secured with RFID security system. Library catalog (OPAC) can be accessed through exclusive 8 computers. Library has a seating capacity of more than 300 and 60 individual study carrels.

The Library hours are : Sunday to Wednesday from 7.30 AM to 10.00 PM, Thursday from 7.30 AM to 7.00 PM, Friday from 4.00 PM to 6.00 PM and Saturday from 1.30 PM to 8.30 PM. The Library hours are extended till Midnight during all the evaluation components including comprehensive examinations. The Library remains closed on national and Institute holidays.

The mission of the Library is: to collect, organize, preserve and provide access to the information necessary for the institute, to achieve its educational, research and service goals; to improve and enhance access to information in all forms, using innovative technology thereby having a broad based collection, to assist in meeting the needs of students, faculty and staff. The Library renders standard services such as borrowing / lending, reference, **referral services, etc.**

#### Acquisition Section

At present, the library has a collection of 21870 books. The collection of the library is growing continuously on a regular basis. 1210 books were added to the existing collection during the year in major disciplines of engineering and sciences. The Library procured a good number of Fiction and General Aptitude books on TOEFL, GMAT, GRE, IELTS, GATE. Books on Arabic language have also been added.

#### E-resources

1. The Library caters to the users' needs with the collection of abundant e-journals from the following e-databases: IEL Online IEEE Xplore Digital Library, American Society of Mechanical Engineers (ASME) digital collections, ACM Digital Library, JSTOR e-journals, EBSCO Engineering Source and EBSCO Humanities International Complete. The e-databases have full text of e-journals with back issues, conference proceedings, e-books and reports.
2. The Library acquired MIT Press eBooks with Perpetual Access to 692 titles which are accessible through IEEE Xplore Digital Library.
3. The latest question papers have been digitized and made available through the library online catalogue which can be accessed through Library OPAC.
4. The Library subscribes to e-paper of "Khaleej Times" and "The Hindu".

### Electronic and Digital Services

- i. Federated Search for Online databases (e-journals), E-books and OPAC through e-library portal which enables the users to access from anywhere at any time.
- ii. Library Digital Repository which contains the digital contents of BPDC Magazine, BPDC News, Practice School Reports, Project Reports, Research Publications of BPDC faculty, Thesis / Dissertations.
- iii. RFID enabled security system and Self Service Kiosk for issue and return of books which enables for quick and easy service to the user community.
- iv. Web enabled Online Public Access Catalogue (Web OPAC) wherein the users can access the catalogue remotely to search the resources and check their account.
- v. The Library has Wi-Fi facility within the library which enables the users to use their personal devices for internet browsing / project / thesis work.

### Reference Section

1. The Library procured latest editions of Encyclopedias, Dictionaries and Hand books on core disciplines of Engineering, Technology, General Sciences and General Knowledge.
2. The Library subscribes to print version of 47 international journals, 60 magazines and 4 local newspapers.
3. The Library has 712 back volumes of journals.
4. Library has more than 1552 CD-ROMs on engineering courses and there are 5 computer terminals exclusively meant for the accessing these.
5. Library has 470 thesis reports, 868 project reports and 2369 practice school reports submitted by students are available for reference.
6. The Library has an MOU with the Al Ain University of Science and Technology in UAE for the mutual benefit of both the institutions to facilitate the users to avail Inter Library Loan (ILL) of resources.

### Other Services

1. The Library provides Selective Dissemination of Information (SDI), Conference Alert Service, Competition for students alert service and Latest arrival service to the patrons and users.
2. Library provides network based printing, scanning, photocopy and binding facilities to the library users.
3. Useful articles, news, newspapers clippings related to education are being displayed on the library notice board for the benefit of students and faculty.
4. Library has separate discussion rooms for students and a faculty reading room.
5. The computers tables in the Library have been replaced with new modern tables in the digital library section.
6. 25 new Kik Step Stools have been procured for easy access to books placed on shelves at higher and lower levels.

### Facts about the Library

The library collection has grown steadily. Some of the significant statistical data about the library are as follows:

SNo.	Items	Total
1	Number of books	21,870
2	Average number of books circulated per day	149
3	Books added during the year 2017	1210
4	Number of print periodicals subscribed	111
5	Online Databases made available on library site	6
6	CD-ROM collection	1552
7	Total no of back volumes of journals	712
8	Total no. of Reports (Thesis and Project Reports)	1348

**Library Staff Achievements:**

7. World Book and Copyright Day: The event was celebrated by organising Book Exhibition, Talk by Author and Free distribution of books. Library team organized the event with the objective to promote reading habits among the Institute's students, faculty and staff. Script Writer and Debut Author Ms. Daniela Tully, delivered a talk on "Writing Fiction and Reading Habits" on Sunday, 15th April 2018. She shared her experience about writing her debut novel "Hotel on Shadow Lake", script writing and working on critically-acclaimed projects especially the Oscar-winning The Help. At the end of the session she spoke about the importance of reading. The event concluded with a Read Aloud of the first chapter of her book by the author herself and brief book signing and interactive session. Book exhibition was held on 15th and 16th April 2018. Several Vendors displayed books from a wide range of academic subjects and other genres. The Book Exhibition provided a platform for faculty and students to browse the books and purchase. World Book and Copyright Day celebrations concluded on 23rd April 2018 with free distribution of Books and magazines to Students, Faculty and Staff in order to encourage reading habits.
8. R. Sivakumar, Librarian was awarded PhD in Library and Information Science on 12th July 2018 from M. S. University, Tamilnadu, India
9. R. Sivakumar, Librarian presented a paper titled "Information Literacy Programmes in Higher Educational Institutions in UAE - A Survey Results" in ILN GCC SPRING SYMPOSIUM at Zayed University, Abu Dhabi, United Arab Emirates, 1st March 2018.
10. R. Sivakumar, Librarian completed a training course on Training Course in Basic Fire Safety Training Level 1 (Fire Safety) held at BITS Pilani, Dubai Campus, Dubai, UAE, 18th February 2018.
11. R. Sivakumar, Librarian attended the Seventh Annual GCES Symposium conference Workshop on Using International Assessments to Achieve Your Education Goals held at Al Qasimi Foundation, Ras Al Khaima, UAE, 7th April 2018.
12. R. Sivakumar, Librarian and K. Jayachandran, Assistant Librarian attended Attended the Librarians Forum held at Al Maktoum Medical Library, Mohammed Bin Rashid University of Medicine and Health Sciences, UAE, 26th September 2018.
13. Librarians R. Sivakumar and Jayadev P Hiremath visited the GITEX technology week on 18th October 2018 held at Dubai World Trade Centre, Dubai. and explored the technologies for BPDC Library.
14. The BPDC Library staff visited World's biggest book Sale, Big Bad Wolf, Dubai on 24th and 25th October 2018 and procured general reading titles for the Library.
15. Library Staff and Committee Members visited Sharjah International Book Fair held at Expo Centre, Sharjah, UAE on 1st November 2018 and purchased books for Library.
16. Librarians R. Sivakumar and Jayadev P Hiremath attended the KnE Learning Short Course: Introduction to Boosting Citations ; KnE Learning Short Course: Introduction to Teaching Excellence in Higher, Organized by Knowledge E, UAE held at Dubai Knowledge Park, Dubai, UAE, 17th December 2018.

**B4.16.2 Infrastructure and Facilities**

The campus has world-class, state-of-the-art facilities with well-equipped labs and workshops, separate Library block, Academic Block, Sports Complex, Canteen, Clinic, Gymnasium, etc. The Campus has hostel facility for both boys and girl student with single occupancy, central air-conditioned furnished rooms and a full-fledged mess which serves both vegetarian and non-vegetarian food.

In addition with the above to improve the infrastructure further, we are working on the refurbishment of the campus. Part of that in 2017 we have added the Tennis Court in the campus facility and in 2018 a 6 lane running track and 4no's turf pitch is been added.

**B4.16.3 Laboratories**

The Institution's laboratories are of international standards and they have grown from 2 to 45 in the last 16 years, each well-equipped with the latest equipment and machines. The following table gives the discipline wise details of various laboratories:

S.No	Discipline	Laboratory
1.	Biotechnology	Biology Laboratory
2.		Instrumental Methods of Analysis Laboratory
3.		Genetic Engineering Laboratory
4.		Microbiology Laboratory

S.No	Discipline	Laboratory
5.		Industrial Microbiology Laboratory
6.		Research Laboratory
7.		Microscopy and Imaging facility
8.	Chemical Engineering	Chemical Engineering I Laboratory
9.		Chemical Engineering II Laboratory
10.		Petroleum Laboratory
11.	Chemistry	Chemistry Laboratory
12.	Computer Science	Computer Programming Laboratory
13.		Object Oriented Programming Laboratory
14.		Microprocessors Programming & Interfacing Laboratory
15.		Data Structures and Algorithms
16.		Computer Architecture Laboratory
17.		Database Systems Laboratory
18.		Compilers Laboratory
19.		Computer Networks Laboratory
20.		Web Services Laboratory
21.		Software Systems Laboratory
22.	Electrical and Electronics	Electrical Machinery Laboratory
23.		Introduction to MEMS Laboratory
24.		Power Electronics Laboratory
25.	Electronics and Communication	Signal Processing Laboratory
26.		Communication Systems Laboratory
27.		Digital Electronics And Analog Electronics Laboratory
28.	Electronics and Instrumentation	Process Control Laboratory
29.		Electronic Instruments & Instrumentation Technology Laboratory
30.		Virtual Instrumentation Laboratory
31.	Mechanical	Workshop Practice
32.		Prime Movers And Fluid Machines Laboratory
33.		Engineering Graphics
34.		Production Techniques Laboratory
35.		Computer Aided Design Laboratory
36.		Heat Transfer Laboratory
37.		Material Science Laboratory
38.		Mechatronics Laboratory
39.		Fluid Mechanics Laboratory
40.	Physics	Physics Laboratory
41.	Civil	Soil Mechanics Laboratory
42.		Surveying Laboratory
43.		Transportation Engineering Laboratory
44.		Concrete Technology
45.		Environmental Engineering



#### B4.16.4 Engineering Services

##### 1. Communication and allied facilities

The following facilities are available for the benefit of students and staff:

###### i. IT Infrastructure Facilities and Support Services

- a) The Campus and the hostels are covered with the latest Cisco network Infrastructure of both wired and wireless hotspot environment which provides the internal and external connectivity to fulfill the computing needs of the students.
- b) We have Cisco sponsored networking research lab equipped with the required network components such as routers, switches, firewall, wireless controllers and access points to build the network from the base level to high level of networking. The Cisco lab has all the paper and soft copy material to help the students to learn and start the practical training on Cisco. This Cisco lab will lead the students to achieve the Cisco certifications and software defined Network projects.
- c) The data centre equipped with the following servers and Network components.

###### ii. Servers

- a) HP DL 380 series new generation
- b) HP Storage serve (SAN)
- c) QNAP NAS for Backup
- d) Dell M1000 Blade Enclosure with Three Blade servers
- e) Dell Power Edge R740XD GPU server

###### iii. Network Components

- a) Cisco Core switches Nexus series
- b) Cisco Edge switches
- c) Cisco Firewall
- d) Cisco Prime system
- e) Cisco Wireless controller
- f) Cisco Network admission control and access control system
- g) Cisco IP Telephony system
- h) Utopia Internet access control
- i) Panasonic IP camera setup
- j) Most of our key critical applications are configured in Virtualized environment with load balancing and cluster mode. We have Business continuity and disaster recovery plan in place and we have a disaster recovery site is configured in different location to continue our operation in case of any unforeseen scenario. Periodic backup is scheduled by disk to disk method to backup the data as snapshots.
- k) We have Cisco Telepresence system (under BITS Connect 2.0 project) is implemented in our campus which is interconnected to all our campus in India. The Cisco Telepresence classroom, capacity of 160 seating will help the students to participate the online classroom sessions.
- l) The software tools like AUTOCAD, MATLAB, CATIA, SYNOPSIS, ANSYS, SPSS and ASPEN are available to the students along with a variety of compilers and operating systems.
- m) Smart print solution is implemented as a part of the E-campus solution project.

S.No.	Hardware Equipment	QTY	SOFTWARE
1	HP ProLiant DL380 Gen9 Intel Xeon E5-2620v3 6-Core (2.40GHz 15MB) ,16GB (1 x 16GB) PC4-17000P-R 2133MHz RDIMM ,3 x 300GB (10k rpm) Hot Plug 2.5in Small Form Factor Smart Carrier ,SAS Smart Array P440ar/2G HP Embedded 1Gb Ethernet 4-port 331i Adapter ,HP 2U SFF - Easy Install Rail Kit w/CMA, DVD-RW 2 x 500W ,3/3/3	2	ESXI 5.5 update 2,Windows Server 2003/2008/2012 R2-Enterprise x64 edition,CentOS,REDHAT Linux Enterprise, Domain Controller, Web Server
2	HP DL 380 G7 Single Processor / Base Server, 32 GB Memory / 300 GB x 2 Hard drives & 600 GB x 6 Hard Drives	1	ESXI 5.5 update 2,Hypervisor,VMware,Replication server
3	HP DL 380 G7 Dual Processor / Base Server, 32 GB Memory / 300 GB x 2 Hard drives	1	ESXI 5.5 update 2,Hypervisor, Windows Server 2003/2012 R2-Enterprise x64 edition/Linux,Vcenter
4	HP MSA 2040 FC 6x900 SAS SFF Bndl/TVlite, HP MSA 900GB 6G SAS 10K 2.5in DP ENT HDD,	1	HP Storage server
5	12-Bay TurboNAS, Xeon E3-1200 v3 family, 4GB ECC RAM(max. 32GB RAM), 4-LAN, 10G-ready, iSCSI, RAID 0,1, 5, 6, 10, 5+spare, 6+spare, 10+spare, global hot spare, max 8-LAN, PCIe expansion slot x2, redundant power supply, Seagate NAS 4TBx12	1	NAS Backup Server
6	DELL PE M1000e Blade Enclosure Chasis (includes 1xCMC and 9x12V High Efficiency Fans) + 3 x 300W redundant Power supply and Fans + 3 x C19 / C20 power cords, Front Media Tray DVD + SD card for CMC + Integrated Analog KVM Switch, Select Brocade M5424 FC8 Switch Redundant (FI) 12 Ports with 2x 8Gb SFPs,	1	
7	PowerEdge M630 Blade Server for M 1000 with 2 x Intel Xeon E5-2640 v3 2.6GHz,20M Cache,8.00GT/s QPI,Turbo,HT,8C/16T (90W) Max Mem 1866MHz (135W) Max Mem 2133MHz, 128GB RAM \8 x 16GB RDIMM), 2133 MT/s, Dual Rank, x4 Data Width, 2 x 600GB 15K RPM SAS 12Gbps 2.5in Hot-plug Hard Drive. QLogic 57840S 10Gb Quad Port KR Blade Network Daughter Card, Emulex LPE1205-M 8Gbps Fibre Channel I/O Card for M-Series Blades	2	ESXI 5.5 update 2,Windows Server 2003/2008/2012 R2- Enterprise x64 edition,CentOS, Ubuntu,Debian
8	PowerEdge M630 Blade Server for M1000, 2 x Intel Xeon E5-2698 v3 2.3GHz,40M Cache,9.60GT/s QPI,Turbo,HT,16C/32T (135W) Max Mem 2133MHz, 2 x 600GB 15K RPM SAS 12Gbps 2.5in Hot-plug Hard Drive, 64GB RAM (4 x 16GB RDIMM), 2133 MT/s, Dual Rank, x4 Data Width, QLogic 57840S 10Gb Quad Port KR Blade Network Daughter Card, Emulex LPE1205-M 8Gbps Fibre Channel I/O Card for M-Series Blades	1	ESXI 5.5 update 2,Windows Server 2003/2008/2012 R2- Enterprise x64 edition, CentOS
9	Dell Power Edge R740XD GPU Server,2X,Intel Xeon Gold 2.1G,16C,480GB SSD,2.4TB SAS,32GB RAM,2XNVIDIA Tesla V100 GPU	1	Ubuntu 16.0
10	Cisco ASA Firewall, ASA5585-S20-K9	2	Cisco IOS
11	Cisco Core Switch Cisco Nexus 9300 Series- N9K-C9372PX, 48 x 1/10-Gbps SFP+ and 6 x 40-Gbps fixed QSFP+ ports,	2	Cisco IOS
12	Cisco Edge switches- WS-C2960X-48FPD-L	3	Cisco IOS
13	Sonicwall NSA 5600 Series	2	Wan optimization
14	Cisco AIR-CT5760, AIR-CT5760 (H/A)	2	Cisco IOS
15	Cisco Unified Communication System,UCS-BE-6000	1	Vcenter
16	Cisco Voice Gateway ,CISCO2901/K9	1	Cisco IOS

## B4.17 PROCUREMENT AND MAINTENANCE

Facility Management Department is in charge of Maintenance and modification of the infrastructure and facilities in the campus. Any modifications to the infrastructure are taken up by FM Department as per the approval of the Director, BITS Pilani, Dubai Campus. Procurement actions are initiated after the approval by the Purchase Committee, with respect to new equipment, spares, consumables, repairs and modifications of the existing equipment.

During the year 2018, the following jobs of up-gradation / repairs of the existing facilities were done.

1. Painting all common area for institute and hostel.
2. Façade cleaning of complete hostel block was carried out.
3. All the Main LV panel Testing and servicing done.
4. **Replaced the old fluorescent lights to LED's.**
5. Replacement of Auditorium carpet.
6. Installation & commissioning of new access system in the main gate.
7. Installation of new furniture for Civil and IMA labs.
8. **Installation of 2no's of new air conditioners for the Auditorium.**
9. Installation & commissioning 5kw solar system in library roof.
10. Construction of a 6 lane running track.
11. Construction of **4no's of Turf cricket pitch.**
12. **Purchased and replaced 22no's of Hot & Cold water purifier in Hostel.**
13. Procurement of office furniture for the new faculty and staff.
14. Repair and construction work on the kitchen drainage line was carried out.
15. **Replaced 12 no's of Wash basin counter and granite top in Hostel B Block.**
16. Procurement of bed, mattress and pillow for the hostel rooms.

## B4.18 EQUIPMENTS AND ACCESSORIES

A large number of equipments and accessories were purchased for BITS Pilani, Dubai Campus. The list of major equipments is included in the Annexure B4-21.

## B4.19 STUDENTS ACTIVITIES, ACHIEVEMENTS, SCHOLARSHIPS, CULTURAL AND ACADEMIC FESTIVALS

### B4.19.1 Student Council

President	Ammam Agarwal
Vice President	Abaan Ahamed
General Secretary	Samaksh Jhalani
Ex Officio Member	Syed Arafath

### B4.19.2 Day Scholar Representatives

1st Year	Sai Hruday
2nd Year	Abhishek Nair
3rd Year	Gunja Mehta
4th Year	Mohammed Ibrahim

### B4.19.3 Hostel Committee

Block A	Goutham Manikonda
Block B	Rishabh Bhati
Block C	Raj Patel
Block D	Yatharth Kher
Block G	Divya Daswani

**B4.19.4 Clubs**

Dance (GROOVE)	Gautham Sahoo
Art (SHADES)	Zoha Arif Ansari
Social & Environment (MAKE A DIFFERENCE)	Navisha Daga
Drama (PARIBHASHA)	Sidharth Sashikumar
Public Speaking & Literary Club (EXPRESSIONS)	Indraneel Patil
Photography (REFLEXIONS)	Atul Vijay
Music (TREBLE)	Shivangi Sharma
Sports	Navaneeth Tudi
Design (Oh, Crop!)	Yashika Gupta
Fashion Club (Allure)	SyedRazaaAli
Quiz Club (Flummoxed)	Jitesh Gurav and Shaleen Bengani.

**B4.19.5 Student Activities**

BITS Pilani, Dubai Campus encourages student to participate in different extracurricular activities to build team spirit. Professional/scientific activities such as intrauniversity technical festival, Technofest and interuniversity technical festival, Enginuity are organized every year. Students also participate in scientific and professional bodies of international repute such as Student Branch of IEEE, SAE, ASME, ACM, ASHRAE as well as local associations such as MEA, CHEMERA, Linux Users Group, Microsoft Tech. Club etc. Students are equally encouraged to be involved in Sports, cultural and social activities. There are 12 clubs namely Dance Club, Arts Club, Public Speaking & Literary Club, Music Club, Drama Club, Social & Environment's Club, Photography Club, Sports Club, Design Club, Fashion Club, Quiz club and Astronomy Club. The following were some of the important activities held during the year 2018:

**B4.19.6 The Social and Environment Club**

Social and Environment club organized many activities during the year 2018, the activities are given below:

**World Teachers' Day** - Also known as International Teachers Day, it is held annually on September 5th. This was the first event organized by the Social and Environment club for the new academic year 2018. The club gifted every teacher a poster to express their gratitude. A photo frame was gifted to the director for his constant efforts to make the campus a better place for students. The reception was also decorated to showcase their gratefulness.

**Organic Farming** - Organic Farming is held weekly in the organic farm and ladyfingers, cucumbers, potatoes, chillies, tomatoes, beans, bottle gourds, etc were grown near the tennis court. The students are educated about the benefits of growing food organically. The produce is distributed among the volunteers and the faculty members. Every week, new seeds are planted or maintained, and the current crops are harvested.

**Newspaper Paper Bags** - Through this initiative, the club aims to replace the plastic bags present in the grocery shop of campus, mini mart with newspaper bags handmade by the dedicated group of student volunteers.

This ambitious initiative is currently in its 15th week and the students are receiving excellent responses from the people thanks to the support from the minimart staff and of course from the group of volunteers.

The volunteers are asked to make 5 bags minimum every week and they are submitted in a batch of 25 bags every 4 days to the minimart. Students also meet up in a common hour every week to make the bags together.

**Mental Health Awareness \_Workshop** - A mental health awareness workshop was organized by the club on 15<sup>th</sup> September 2018. The workshop aimed to promote conversations about mental health and help in ending the stigma surrounding mental health. Students were invited to come and engage in an open discussion with topics ranging from anxiety, peer pressure, self-harm, substance abuse and how to deal with these issues.

**Daan Utsav – Joy of Giving Week** - Daan Utsav, or the Joy of Giving week was held from 30th September to 4th October 2018. The event was organized by the Social and Environment Club. The club organized a clothes and detergents collection drive throughout the week. All the commodities donated by the students and faculty members will be given to the Red Crescent Society. A blood donation camp was also organized in association

with Latifa Hospital during this week in which a lot of people volunteered to donate blood. At least, 100 units of blood were donated by the students and the faculty members.

**English Classes** - English classes are organized regularly to help the supporting staff improve their language skills. These classes help encourage and empower their communication skills. The enthusiasm shown by the supporting staff through their regular attendance and also by the student volunteers is commendable.

**Dandiya Night** - Dandiya Night, one of the most important events of the club was held on 18th October 2018. A fundraiser for Spectrum, around 300 students were a part of it. All the funds generated would be spent for the kids from special needs schools who would be visiting our campus the next semester for Spectrum. It was a fun night filled with dance and music along with a photo booth. All attendees were provided food boxes after the event. All this could only be possible due to the tremendous efforts put in by the club members and volunteers and the constant support of the faculty.

**'MINDFULNESS' Workshop** - A workshop on 'MINDFULNESS' was conducted by the Social and Environment Club on the 25<sup>th</sup> of November 2018. The main aim of the workshop was to spread awareness among students regarding mental health and encouraged them to take care of themselves. Activities like chocolate tasting, impromptu theatre and coloring were conducted by life coach Shreya Maheshwari. Students also had a personal one to one session with the life coach to discuss about any other personal issue.

**Pink Day** - The Social and Environment Club spread awareness about Breast Cancer as part of 'Pink Day' on October 31st 2018. Brochures about Breast Cancer Awareness and ribbons were distributed among all faculty members. Students were also given ribbons as a symbolic gesture and they wore a pink or a white outfit to show their support. Many stalls for games and a nail art stall for students was put up by students.

MAD club also collaborated with other clubs on this day to raise awareness. 'Shades' held a pink card making competition for cancer patients. 'Expressions' kept a stall where students could write letters or words of support to breast cancer patients. 'Groove' and 'Trebel' also performed and showcased their support. Cupcakes with Pink frosting were also sold to students as part of 'Pink Day'.

**Christmas Breakfast** - On 25th December, the club hosted a Christmas Breakfast for around 45 members of the supporting staff of the institute as a token of appreciation. Food boxes were distributed along with tea to each one of them to spread the "Festive Joy".

**Spectrum** - On 26th April 2018, The Social and Environment Club of BITS Pilani, Dubai campus organized one of the most inspirational events, Spectrum 2018. An event to spread happiness amongst the special needs students, it gave BPDC students an opportunity to view and be a part of the world through someone else's eyes. The theme for Spectrum was based on Winnie the Pooh and his friends in the Hundred Acre Wood. The event was inaugurated with the lighting of the auspicious lamp by the Dean of Student Welfare, Dr. Priti Bajpai, the faculty in charge of the club, Dr. Geetha and the office bearers of the club. It was followed by a short welcoming speech. The campus students also sang and danced for the little ones. Over 120 students volunteered to organize activities such as games, singing, sketching, dancing and painting in which 140 students from Senses Centre, Al Noor training Centre, Manzil Centre, stepping stones Centre and National Institute of Vocational Education- participated and won several prizes. Smiles erupted on the faces of the children when they were awarded goodie bags full of exciting things and medals to appreciate and recognize their efforts. The event was a great success as it was able to achieve its primary goal of bringing happiness amongst those little princes and princesses and it also taught BPDC students, the virtue of showing gratitude and love.

**Bag of Love** - Bag of love, an initiative by The Social and Environment club was held on 1st May 2018. It was an event to appreciate the efforts of the support staff and security, throughout the year. They ensure that the campus is kept in safe hands, so that it functions smoothly. The event was held under the presence of the Director Prof. Dr. R. N. Saha, Dr. Geetha, office bearers and members of the club. The Director and the President of the club, shared a few words to appreciate the efforts of the support staff and security members. It was followed by the distribution of gift bags, containing everyday items such as snacks, juices and other household items. The purpose of the event was to bring smiles on the faces of the support staff and club members ensured that they were able to achieve that.

**Valentine's Day**- On 14th February 2018, the club had set up a stall to spread love and raise funds for 'Spectrum' as well. A stall was set up by the students which sold handmade cards, roses, donuts, cupcakes and chocolates. One could decorate the cupcakes themselves and send it to their loved ones anonymously as well!

#### B4.19.7 The Public Speaking and Literary Club

Toastmasters debate contest : In the Inter Club Debate Contest, a division level toastmasters debate contest which was conducted on 16th November in American University in the Emirates. There were a total of 18 teams participating, including five star clubs such as ICAT Toastmasters Club, Emirates Toastmasters Club and Friends of Yoga Toastmasters Club. Among the participants were also teams from advanced clubs like Dubai Advanced Toastmasters Club and DIC Advanced Toastmasters Club. All contestants were not only much older than us but also more experienced toastmasters. Our team from BITS Dubai Toastmasters Club was the youngest team. The event had a preliminary round with 18 teams. Top 8 teams qualified for the next round, including the team from BITS. Next, the top 3 teams with the highest scores were shortlisted. After intense debating with just 10 minutes to prepare, BITS Dubai team was announced as the champions of the Division-F Inter Club Debate Contest.

#### BITSMUN 2018

Model United Nations (MUN) is a student simulation of the proceedings of the United Nations in the form of a two day conference. Students, referred to as **Delegates, are assigned a country to represent in one of the UN's numerous committees with pre-set topics to debate.** The goal is to identify solutions, by negotiation and consensus, on which many countries can agree. For the first time ever, Expressions brought the BITSMUN to BITS Pilani Dubai on the 17th and 18th of October 2018. The conference lived up to all the expectations and also stayed true to the foundational qualities of BITS Pilani, namely Innovate, Achieve and Lead. Conference hosted 6 schools and 5 universities from Dubai and Sharjah with a total of 150 participants including our BPDC students. **The three UN committees which were simulated in this year's conference were the General Assembly which discussed and proposed a Draft Resolution for China's One Belt One Road initiative, the Security Council which dreamt of and succeeded in introducing renewed control over the Conflict in the Arctic Region and also the UNESCO which labored to push new ideas of rehabilitation during post war efforts.** Every participant in the conference went through the rigorous process of researching his/her country's foreign policy, drafting a position paper on the agenda at hand, giving the opening address to the respective committee, lobbying with fellow delegates, drafting an exhaustive Draft Resolution which resolved the matter at hand and passing it in his/her committee with a winning majority. The exercise proved to be extremely fruitful for all students and each one of them took back many memories, lessons and experiences to cherish from the two days.

Debate Competition: A debate competition was organized by American University in Emirates. Amongst the 16 colleges participating and over 25 teams, the BITS team of Abirami Baalaji and Athul Krishnan came fourth. Sameeksha Amin and Karthik Vasudevan further continued the season of good performances by making it to the Semi-finals of the NYUAD regional debate championships. This team not only almost reached the finals, but their debates and personalities further the reputation of BITS Pilani Dubai Campus in the debating circuit. They also **received special mention in the debate hosted by SP Jain University. Devils Advocate" was well received during** Enginuity. However, during Jashn, the Expressions event – Poetry Slam, had 18 teams participating from over 6 universities. We have received a lot of positive feedback about the event and plan on hosting another one next semester. The judges of the event have also been very supportive and offered to mentor the participants and help further their literary aspirations. The last event of the semester – the BITS Debating Championship- saw 20 participating teams from 6 universities. A BPDC team also participated in a competition in Heriot Watt University, Dubai during II Sem 2018-19.

**Emirates Environmental Group Speaking Competition** : Urvashi Sharma, Zaidan Umar, Shivank Gupta, Mahwish Kaur and Meeru Sudhir represented Expressions and EEE Department at the Emirates Environmental Group Speaking Competition during 27-28 November 2018 and spoke on the theme "The Future of Agriculture in the Middle East".

#### B4.19.8 Dance Club

The year 2018 was one where groove proved it's passion for dance by winning many laurels at intra and inter university level. Activities kicked off in style during the clubs introduction during Icebreakers followed by auditions for interested students for both, the eastern and western teams. Dance club activities during different months is as follows:

**February 2018** In the month of February with an entertaining performance at the Global Millennium Annual Meet held at BPDC. Shortly after, the auditions were announced and club gave a warm welcome to all the new members. Club performed at the Indian Consulate during the maiden interactive session between the consulate and the Indian students studying in the UAE.

**April 2018** The dance club team secured 1<sup>st</sup> and 3<sup>rd</sup> position in Eastern and Western category respectively during annual Inter-University cultural festival, Jashn (16<sup>th</sup> -19<sup>th</sup> April 2018) organized by BPDC. They also secured 1<sup>st</sup> position in the duet category. Dance club participated for Spectrum 2018 on 26<sup>th</sup> April 2018. They had the privilege to entertain and bring smiles to the faces of all the children who came during Spectrum hosted by the Social and Environment Club.

**May 2018:** Dance club bid adieu to their beloved seniors at **Diro's Tea Party (10th May 2018)** who nurtured us to become better as a team and keep taking the club to greater heights. Club members gave special thanks to the Director Prof. R N Saha, Dr.Priti Bajpai, Dean Student Welfare and Dr. V.Kalaichelvi (Faculty In-charge) for giving them the guidance and all the possible opportunities for making it a successful academic year for the club.

**October 2018** Sparks 2018, an intra-college event was held between 23<sup>rd</sup> -25<sup>th</sup> October, 2018. The dance competition for the fest was divided into 3 categories: Western Group Dance, Eastern Group Dance and Dancing Doubles. There were 11 teams for the eastern category, 2 for western and 8 for dancing doubles. The event was embraced by special performances delivered by the eastern and western team of Groove. There were many brilliant performances that left the audience awestruck. The group event was judged by Atulya Rajendran, Divya Rangunathan, and the Civil department faculty Sreelakshmi Babu. Dancing doubles was judged by Atulya Rajendran and Divya Rangunathan. All of them are brilliant dancers and won countless awards for their breathtaking performances. All the judges were amazed at the splendid performances of the students. The non-stop cheering and support from the audience throughout depicted that they thoroughly enjoyed the event. The hard work, effort and time put in to making this event a success was both prominent and commendable. To sum it all up Sparks 2018 was a platform that displayed a colorful pallet of varied performances, where individuals and teams stepped out from the silhouette into the limelight. To say that an event so magnanimous in dance and spirit was merely a success would be an understatement.

**November 2018** In the month of November 2018 Groove also gave few entertaining performances during the EEE department Meet and Greet held on nov 19<sup>th</sup> 2018 and also for Inaugural Ceremony of the BITS Sports Festival held on 25<sup>th</sup> November 2018 .

**December 2018:** In the month of December 2018, students performed in ENGAGE 2018 held at BPDC on Dec 8<sup>th</sup> 2018 and an entertaining performance was given by dance club students during this Alumni meet function.

#### **B4.19.9 Drama Club**

The Drama club, Paribhasha, hosted 5 events in the year 2018. **Three events, "Proscenium", "Nukkad Natak" & "One-man show" were held during Jashn 2018. In Proscenium, teams staged a 20 minute play, Nukkad Natak- Teams performed streetplay on social causes. In One-man show ,comedians from universities all over dubai performed their standup acts. During Sparks 2018 an event called "Nukkad Natak" was organized. Other events like "A Twist in a Tale" were also held. In "A Twist in a Tale"-teams were given a scene from a famous movie and then showcased it to the audience with a twist. The members of the club took part in "Short & Sweet", a theatre festival held across dubai in which the team secured 3<sup>rd</sup> place in the audience choice category. In addition, the club also performed on Important days like Gandhi Jayanti etc.**

#### **B4.19.10 Art Club**

The Art Club "**Shades**" had been active in every major event of BITS Pilani Dubai campus in 2018. The major events and activities by the Art club are as follows:

**Trip to Louvre Museum** , Abu Dhabi (9<sup>th</sup> March, 2018): Art club arranged a trip to Louvre the first universal museum in the Arab world , Abu Dhabi on 9<sup>th</sup> March, 2018 to explore the works of historical, cultural and sociological significance from ancient times to the contemporary era. A group of 25 students visited the Louvre and were accompanied by the Faculty-in-charge Dr.Vijaya Ilango.

**Holi milan** (25<sup>th</sup> March, 2018): The students from art club volunteered for the decor work of 'Holi Milan' which was celebrated on 25<sup>th</sup> March, 2018.

**ARTEX**(26<sup>th</sup> and 27<sup>th</sup> March 2018 ): The annual intra-college art event was conducted by Shades. **It's** main event is Kalakriti, an Art exhibition, a show case of various forms of art like Oil painting, Acrylic painting, Water Colour painting , Poster Colour painting, Digital Art, Classroom art, Pencil Sketching, Oil pastels, Pen/ink art, Pencil color shading, Glass painting, Fabric painting, Embroidery, Pot designs, Best out of Waste (Junk Art) . During Artex, competitions like Rangoli making, Face painting, Henna designing, Origami, Clay modelling, Beg-

borrow-steal, Blind art, Doodle god, etc were conducted for the students. Prizes and certificates were given to the winners.

**Convocation** (1st September, 2018): Art club individually had done Rangoli and all decorations connected with convocation ceremony .

**Gandhi Jayanti** (2nd October, 2018): Shades, The art club organized an art exhibition of portraits of Mahatma Gandhi and a rangoli done by our members to commemorate the 150th birth anniversary of the father of our nation.

**Pink day**(30th October,2018): Shades, The Art Club conducted a monochromatic card competition, "Shades of Pink" on the occasion of Pink Day, organized by the Social and Environmental Club to spread awareness about breast cancer. The participants were asked to make a card about Breast cancer awareness using only one color, pink. Around 22 students participated in the competition. Out of 22 cards, best 5 cards were selected and given prizes. Certificates were given to the winners and volunteers.

**Faculty Get together** (16th November, 2018): A Faculty/ Staff get together was organized by the BPDC Staff recreational club members with family and friends. The art club members had done Rangoli and all decorations for the get together.

**Origami Workshop** (22nd November, 2018): An origami (paper folding) workshop was organized by the Art club. The workshop was conducted by Ms. Neeraja Narayanaswamy, 3rd year CS student. The session began with the basics of paper folding such as the types of folds and some basic structures like frogs, butterflies, lilies, etc. Towards the end, techniques to make a bow and a diamond were taught to the students gathered there. A certificate of appreciation was given to Ms. Neeraja for taking out her precious time to teach the basics of paper folding.

**BITS Alumni Meet**(8th December, 2018): The students from art club was involved in arranging a photo booth for the BITS Alumni Meet which was conducted to cherish their nostalgic memories during the college life of all the members and to reunite them.

#### **B4.19.11 Drama Music Club**

Trebel, the official music club of Bits Pilani Dubai campus, was one of the most successful clubs of the college in the year 2018, continuing its streak of the past few years. The club started off the year with a blast by giving a wonderful performance in the Global Millennial Conference, which was widely appreciated by the audience. Trebel then celebrated Valentines Day by belting out a number of melodious songs, which the students actively participated in and enjoyed. Next, Trebel joined hands with the official design club of the college, Oh Crop to perform at their annual 'Oh Crop Carnival'.

Trebel also represented the college in various inter-university fests namely **IMT Vaudeville** at the Institute of Management and Technology and **Watt-fest** at Heriot Watt University and **Manipal carnival** and the Manipal institute of technology.

For the first time ever, **Trebel Musical Evening** was organized on a platform as big as **JASHN 2018**, providing the members of the club an opportunity to showcase the best of their talents in front of the whole of Dubai. The event was Organized on **16 April – 2018** and witnessed enthralling and jaw dropping performances which were a mixture of both Eastern and Western including Solo, Duet and Group performances by the talented members of Trebel. The performances were widely appreciated by the audience, thus proving the mantle of the talented musicians of BPDC and making their efforts a great success.

Trebel also organized all the Inter-University Musical Events of JASHN 2018, the likes of which included Eastern Singing (Solo and Duet), Western Singing (Solo and Duet), Battle of the Bands and Instrumental Competition. All the Music Events witnessed huge participation from universities across Dubai, with a **maximum of 10 Participating Universities in Western Singing Event**.

The Winners of Sparks represented BPDC at the Inter-University Level in Jashn 2018 and all the participants put their best foot out to make BITS the overall unparalleled champion of JASHN 2018.

The club then performed at the annual **Diro's tea party**, 2018 for the graduating batch, and impressed everyone with their performance.

**Music Cover Videos** is a brand new initiative taken by the club wherein a music cover video is posted monthly from the Club's official Facebook Page. This initiative was not just limited to the members of the club, and was



extended to all faculties and students of the institution. The initiative promoted young and talented musicians who needed a platform to showcase their talent and thus proved to be a great success!

This year also witnessed the commencement of the **Trebel Music Lessons**. The club decided to not limit the classes to students only and therefore, an e-mail notification was sent across to all the students and faculties, inviting them to register for the Music Lessons. The Initiative received great positive response from everyone and proved to another laurels in the trophy bag of the club.

**With the commencement of a new academic session this September, The Club's first activity / performance of the year were on Ice-Breakers '18**, where the club gave its formal introduction to all the Students, most importantly, the first year students. The Introduction was followed by an enthralling performance by the existing members of the club. The end of Icebreakers marked the beginning of the Registrations Process for the new academic year.

**The club then gave a band performance at Engineers' day, which was well appreciated.**

Then came **Sparks 2018**, - The Annual Intra-College Cultural Fest. The Club organized all the Musical Events of **Sparks '17, the likes of which include events such as** – Solo and Duet Singing (Eastern & Western), Beat boxing and Instrumental Competition. The Judges of the events were Reputed Local Artists, BITS Alumni and BITS Faculty.

The performances by the club were one of the main highlights of Sparks, 2018.

The club also performed at the **I-Craft conference, the Annual Alumni meet and Gandhi Jayanti**, all of which was hugely appreciated.

The Club ended the Semester on a high-note with organizing **Christmas Caroling**. The event being a solely Trebel organized event was done to wish everyone good luck for their Exams and celebrate the spirit of Christmas.

In conclusion, the year was a hugely successful one for Trebel, and we hope to keep the spirit of the club alive in the upcoming years as well, by focusing on the soul of the club, i.e. music!

#### **B4.19.12 Design Club**

The club designed the year book for the outgoing batch. The club has been contributing in many ways such as: Graphic Design & Illustration done for various events organized by ACM - BITS Pilani, Dubai Campus, Team IFOR, ASME, Sports Club, Drama club, Astronomy Club, Quiz Club, Fashion club and the Editorial Board - BITS Pilani, Dubai Campus. The club is also involved in designing bulletin, brochures pamphlets etc for various events like Jashn, Sparks BSF etc.

#### **B4.19.13 Fashion Club**

With the increase in popularity of the club and shows along with the burden of maintaining a winning streak among interuniversity competitions, Allure members thrived to entertain the crowd and to teach those who are interested a sense of fashion and style. This academic year kick-started with a debut video during icebreakers which was made by a well know videographer - Haseeb Latheef. The next step by club was making their own Instagram handle "Allure fashion blog" where the followers are given ideas on how to carry themselves and how to dress for a particular event/season. The next event for the semester was Sparks'18 in which the club had organized two events; Drape- which was conducted on 23rd of October was a fashion designer's show where 5 participants brainstormed and came up with innovative designs to portray their ideology.

(1st prize - Anna. 2nd prize - Zoha Ansari. 3rd prize - Mahwish Kaur. Best model - Syed Razaa Ali)

Mr & Ms. Sparks - being one of the most hyped events and the last of Sparks '18(25th October) included 16 participants ( 8 boys and 8 girls) wherein they competed with each other for the title. Other than the main titles there were other awards such as best dressed male/female and best model male/female. The new students were trained and guided by the allure team for 3 weeks so as to prepare them for the show.

Mr.Sparks- Adnan Khan. Ms.Sparks- Meera. Best male model- Haris Patel. Best female model- Sunidhi Kashyap. Best dressed male- Abhishek. Best dressed female- Mary Sheryl All the activities were held under the able guidance of the faculty in-charge Dr. R Swarnalatha. The current members are Syed Razaa Ali, Sagar Chorera, Anushka Singh, Divya Gerra, Nayanika Goje, Raza Ali, Arjun Kamath, Nathan Monteiro, Adnan Khan, Rohan Modak, Meera, Mary Sheryl Winnie, Simran Arora, and Sunidhi Kashyap.

#### B4.19.14 Photography Club

During the year 2018 the club covered many events like Jashn, Sparks, Recharge, Bits Sports Festival, Enginuity, Technofest, and also they covered various Talks and workshops held by all the disciplines. A photography competition that was held during Technofest the intra-college technical festival. A photography competition that was held during ENGINuity and prizes were sponsored by Nikon. First cut was a short film competition organized in collaboration with Paribhasha - The Drama Club, BITS Pilani Dubai Campus.

#### B4.19.15 Quiz Club

The quizzing club of BITS Pilani – Dubai Campus, Flummoxed, had a very fruitful year where the club promoted and created a quizzing culture on campus by conducting numerous quizzing events, weekly quizzing sessions, and organizing quiz competitions in association with multiple corporate and academic entities. Some of them have been listed below:

**League of the Champions** : The club organized a weekly online quiz competition which saw over 300 participants from over 10 universities compete against each other. Every week, a new theme was used based on the recent happenings in the world, which prompted all participants to gain a profound knowledge of the world around them. This was truly a quiz for the people, and by the people.

**Pop Mania** : Held during the Sparks Festival for that year, this event saw over 60 participants from the university compete against each other in a quiz based on the pop culture events which took place in the past decade or so.

**Marvel v/s DC – A Comic Affair** : This event took place during the Jashn Festival which was in line with the theme for the festival, La Comic Fiesta. Over 80 participants from multiple universities across the UAE competed against each other in an innovative quiz competition.

**The Wolf Of Wallstreet Quiz** : An event conducted in collaboration with the Entrepreneurship club of the college saw participants from universities across the Academic City region bid on questions to gain money which they could then invest to make a move on the stock market simulator.

**Tech Fiesta:** A quiz held during the Technofest and Engenuity event for the academic year saw participants compete against each other on a theme based on all things Science, Technology, Innovation, and Business.

**Tata Crucibles** : An event held in partnership with the wildly successful Tata Crucibles Campus Edition team saw over 500 participants from universities across the UAE compete against each other to win cash prizes worth upto 30,000 AED. Our university placed first and third in the competition and represented the region in the International Finals.

**TAPMI Quiz on The Beach: The quizzing club acted as a promoter for this event held at Manipal's Dubai Campus.** Our team qualified for the international final for the fourth year in a row and flew to Manipal, India to compete in the International Finals.

The club partnered up with other clubs and associations on campus such as the Astronomy Club, the Tech Club, and IEI to create multiple themed quizzes to promote their clubs through the medium of quizzing. Multiple weekly sessions were held throughout the year to help teams prepare for the inter- and intra-university quizzing events across the world.

#### B4.19.16 Sports Club

The Sports Club at BITS Pilani, Dubai Campus has always tried to promote, develop and improve the quality of sports as well as the facilities involving these sports. In 2018 sports club organized the following sports activities:-

##### 1) Inter-Year Tournaments:

Sports Club organized Inter Year/Class tournaments for both boys and girls in Cricket, Tennis, Football, Table-Tennis, Throw ball, Badminton, Chess, Carom, Handball, Basketball, Athletics (Field & Track) and Volleyball.

##### 2) Inter BITS Sports Meet:

BPDC participated in the Inter BITS SPORTS Meet held at Hyderabad from 24<sup>th</sup> to 29<sup>th</sup> January 2018. Hashir Faraz won silver in 200m and bronze in 100m track events.

### 3) Inter-University Tournaments:

#### a) Gulf Medical University Sports Meet -

BITS Pilani, Dubai Campus participated in GMU Sports Festival organized by GMU from February 24th to March 1st 2018. Our Throwball (Girls), Cricket (Girls), Volleyball (girls) and Badminton (Girls) secured first place bringing 4 golds for our college.

b) **American University of Sharjah Sports Fest** - BPDC participated in AUS Inter University racquet tournament held between March 5th to 7th 2018, organized by AUS. Our Badminton (Girls) secured the first place, and Table tennis teams (Boys) secured the third place.

c) **Skyline University Sports Fest** - BITS Pilani Dubai Campus participated in the Skyline cup held from February 11th to 22nd 2018. BPDC Throwball (Girls) secured the first place.

d) **Scottish Highland Games** - Our students participated in the SHG Sports cup held at HeriotWatt-Dubai in March 2018. BPDC Volleyball (Girls), Table Tennis (Boys), Badminton (Boys & Girls) teams secured first place.

e) **IMT** - Our students participated in the Sports cup held at IMT-Dubai in the first week of March 2018. BPDC Football team secured the first place, Table tennis (Boys) and Volleyball (Boys) teams secured the second place.

#### f) Higher college of technology Sports day -

BPDC students participated in the HCT Sports cup held at Dubai men's college on 7th March 2018, and our Volleyball (Boys) and Basketball (Boys) teams secured first place.

g) **New York University Abu Dhabi** - BPDC students took part in the NYUAD Swim and track meet held on March 23rd 2018. Hashir Faraz won one gold and one silver in the track events for BPDC.

h) **DIAC Sports Fest** :- 11<sup>th</sup> November – 17<sup>th</sup> November, 2018, BITS Pilani, Dubai Campus participated in DIAC Sports Cup 2018 and secured gold in Throwball (girls), silver in Beach Volleyball (boys) & Beach volleyball (girls), gold in cricket (boys), secured gold in chess (boys), chess (girls), secured silver in badminton (boys).

i) **Ras al-Khaimah Medical and Health Sciences University Sports Fest**: 4<sup>th</sup> November – 8<sup>th</sup> November, 2018, BITS Pilani, Dubai Campus participated in RAKMHSU Sports fest and secured gold in badminton girls, tt boys, tt girls, chess boys, chess girls, volleyball boys, basketball boys, basketball girls, girls long jump, girls 100M, secured silver in chess boys, chess girls, boys long jump and secured bronze in badminton boys.

j) **Amity Sport Fest**: 6<sup>th</sup> May – 9<sup>th</sup> May, 2018, BITS Pilani Dubai campus shined in the Inter University Sports cup 2018, organized for the first time by AMITY University Dubai. BITS Girls Throwball, Badminton and Cricket teams secured the first place and Lawn tennis Boys and Cricket boys were the runners up.

#### k) **BITS Sports Festival 2018** - 25<sup>th</sup> November – 29<sup>th</sup> November, 2018

The 16th edition BITS Pilani Dubai Campus presents BITS SPORTS FESTIVAL, started on the 25th of November and went on until the 29th of November 2018. With a total of 34 participating universities all across UAE and a total of circa 2200 athletes, This BSF was planned to be bigger than ever before. Day 1 began with the official opening ceremony with the infamous athletes march past after which the traditional sports torch was lit and the flag was hoisted by the director of the institute Prof. Dr. R. N. Saha, Dean of Student Welfare Dr. Priti Bajpai and Senior Manager of Student Services and convener of BSF, Dr. M Rafiuddin.

Both indoor and outdoor events started off with full vigor as scheduled. The universities went head to head in the matches and gave it their all. The weather proved to provide an opportunity for the visitors and athletes to enjoy snacks from the food stalls, as they waited for the weather to calm down. All in all, it was a successful day 1 of BSF 2018. Obstacles were faced in terms of the weather conditions- and overcome, in true sportsman spirit. Day 2 and 3 of BITS Sports Festival 2018, kick started bright and early on the 26th and 27th of November 2018 respectively, with the weather being supportive this time around. As a result of the matches that were conducted, the badminton teams from Manipal, Gulf Medical University (GMU), Amity and BITS Pilani Dubai Campus (BPDC), proceeded to the semi-finals. In basketball-boys, the teams from Rochester institute of technology (RIT), **Canadian University Dubai (CUD), Heriot Watt, Manipal and Dubai Men's College; were** one step closer to the quarter finals. In basketball- girls, the teams from University of Sharjah (UOS), University of Wollongong Dubai (UOWD) and BPDC; proceeded to the semi-finals. In cricket boys, BPDC, Manipal University Dubai, American College Dubai, Szabist and EAU proceeded to the next round of competition. In cricket girls, the teams from GMU and Amity proceeded to the finals. Among the football teams, the teams from Amity, UOWD and MODUL **moved forward as a result of the day's matches. In lawn tennis**, in the semi-finals match between Heriot Watt and

BPDC, BPDC stood victorious. In throw ball, the teams from BPDC, BIT RAK and Amity moved forward. In Table tennis boys, UOWD went on to the finals and Middlesex, BPDC went to the semi-finals. Volleyball boys now had the teams from RIT, Manipal and Middlesex, waiting to compete again in the semi-finals. The girls teams who qualified, belonged to UOWD, CUCA and Heriot Watt.

On the Day 4, BITS Pilani organised the first ever athletic track events in its own campus and the track events went on quite smoothly with the races being very professionally organised on the brand new track. Live events were a continuous affair where all stalls had competitions and contests to keep the moving crowd engaged and to also make sure that refreshments were distributed to athletes. The night came to an end with a special edition of karaoke night to slow things down a little bit after an intense day of matches. BSF holds promises of having extremely competitive and much awaited matches and we always hope that the best team wins.

The final day of BITS Sports Festival was the most awaited one, as university teams all over UAE, prepared to face the finals of their respective sport. Right from the morning, up until the closing ceremony, the matches took place with no disruption and with fierceness and passion for the sport. The university also witnessed the finals of the athletics event.

The closing ceremony of the 16th edition of BITS Sports Festival was held on the 29th of November 2018. The BITS Pilani Campus came alive with excitement and vigour as they prepared to welcome the Chief Guest, a international cricketing legend, Mr. Virender Sehwag.

Mr. Virender Sehwag who is known as one of the most destructive batsmen of all time; gave an extremely inspirational speech and had an immense presence, as anticipated. Every athlete in the audience was inspired beyond words.

Following the giving away of mementos to sponsors and those who contributed to the resounding success of BSF 2018; the prize distribution began. Trophies, medals and certificates were awarded to the winners across all the sporting events. The glimmer of excitement and happiness was evident on every face. Middlesex university bagged the Overall Athletics Championship and BITS Pilani Dubai Campus won the Overall BSF Championship.

As these 5 days of BSF 2018 draw to an end, one thing is for certain, sport has the power to unite people from all over the country and can unite hearts and minds towards a common goal. In this case, the goal was to honour sportsmanship and sporting spirit among young students. The breast cancer awareness campaign that ran for a month also shows responsibility towards society. With 170 volunteers working day in and day out to make BSF a success, there was no way it could go otherwise!

They dared to care and dared to dream.

#### **4) Intra-College Staff and Faculty Sports Tournament:**

Staff and Faculty sports tournament was conducted by the Sports Club in April 2018 and featured Badminton, Volleyball, Table-Tennis, Carom and Chess as categories of participations.

#### **5) Inter-Year Boxing Championship:**

Annual sports day, Inter-Year Prize Distribution Ceremony: On 2<sup>nd</sup> and 3<sup>rd</sup> May 2018 organized Mega event Boxing Finals followed by sports awards ceremony. Medals were handed out to the winners of the intra-university sports events including field and track events, cricket, throw-ball, volleyball, football, badminton, chess and table tennis. Director Dr. R.N. Sasha presided the ceremony as the chief guest and gave away the prizes. Also best Sports persons from each Sport were awarded Best Player Trophies. Also, Faculty and Staff Sports Tournaments award ceremony was held the same day.

**Recharge - 2018:** Sports Club was responsible for conducting all the Sports Events for the Hostel Week Celebrations in Recharge- 2018. A total of 20 categories of various sports with over 400 participants were conducted in a span of 5 days.

#### **B4.19.17 JASHN 2018**

JASHN 2018 which is one of UAE largest inter university cultural festival. It started with a bang as Biswa Kalyan Rath took stage and ended with the celebration of the semester as Sunburn transformed BPDC into UAE's first ever Sunburn Campus. A huge crowd of around 2500 students from various universities attended the program. The various clubs of BITS Pilani, Dubai Campus organized different events during the cultural fest which comprised of dance, drama, music, literary and art events to name a few. Participants included students from American University of Sharjah, American University of Dubai, BITRAK, Manipal University, Middlesex

University, and Canadian University of Dubai, Amity University, IMT and Herriot Watt University etc. Events like Dance Drama, E Quiz, Battle of DJs, Battle of Bands, Pixels, **Devil's Advocate**, Singing, Short film, Fashion Show, etc were held.

#### **B4.19.18 Hostel Week Celebrations 2018**

**Hostel Week "Recharge" was celebrated with a lot of fanfare in the Dubai Campus starting from 25<sup>th</sup> to 30<sup>th</sup> March 2018**, it was a week long affair of fun activities for the hostel students. A special menu was prepared for the week for hostel students. Fun activities like Beg Borrow Steal, Blind Hit, Musical Chairs, Tug of Wars, Eating Competition, Antakshri, Tambola, Kho Kho, Bathroom singing and many outdoor sports were organized. Indoor activities such as chess, carom, badminton and table tennis were organized as well. There was a huge response and participation involved by the hostel students, wardens and the staff. On the final day of the celebrations, a programme was organized in the football ground. Prizes were distributed to the winners of the various events and various hostel students displayed their skills by dancing and singing on stage. The hostel staff was also honored during the event. A grand Buffet dinner was organized after the closing ceremony which marked the end of the celebrations.

#### **B4.19.19 Farewell Party 2018**

**The 'DIROS Tea Party 2018', a farewell party to the passing batch was organized by Student Welfare division on 10<sup>th</sup> of May 2018.** The event began with Department photographs being clicked with the respective department faculty. A programme was then organized in the auditorium to bid farewell to the graduating students. The graduating batch and faculty members attended the ceremony. A dance performance by the Dance Club and music performance by music club entertained the gathering. A lot of fun games were arranged and gifts were awarded to the winners of the games. A 15kg cake was cut by the students. The farewell ended with a dinner and on an emotional note. The Party was indeed one that is kept as a memorable and special day to the passing out batch. Students arrived dresses at their very best to Diros Tea Party and the party ended on an emotional note.

#### **B4.19.20 Welcome Party:**

ICE BREAKERS was held on 10<sup>th</sup> September 2018. The program started with a tree plantation by the freshers and a block of ice was broken by seniors and juniors. Seniors welcomed the freshers and they interacted with each other. Presentations by all clubs were done to familiarize with the club activities & associations. There were different performances by the clubs and the freshers also performed.

#### **B4.19.21 SPARKS 2018:**

Sparks, an Intra College Cultural Festival which is organised every year in the month of October. This year, 11<sup>th</sup> Edition of Sparks was organised from 23<sup>rd</sup> October to 25<sup>th</sup> October 2018. The event was a great success with over 350 participants participating in 12 different events organised by over 9 different clubs of BITS Pilani Dubai Campus. The event was organised by Student Council and Event Management Committee, BITS Pilani Dubai Campus with the help of around 70 Volunteers.

##### DAY 1

The event started with the lightning of the lamp which was done by Director Prof. R.N.Saha, Dr. Priti Bajpai, and Student Council, followed by Group Dance. After Group Dance, the Event was followed by the Special Performance by the four stand-up comedians. They all have performed for various college festival across Gulf. They have performed as opening artist alongside famous Indian comedians like Kanan Gill, Biswa Kalayan Rath and Zakir Khan. Last event for the day was the Dancing Doubles.

##### DAY 2

Day 2 started with the musical event - Instrumental and Beat Boxing which was followed by quiz event Pop Fiesta (Prelims and Finals). Next event on the line was Eastern Singing (Solo and Duet) followed by Nukkad Natak - Street play and a fashion club event Drape.

##### DAY 3

The first event of the Last day was The Twist in the Tale organised by the Paribhasha (Drama Club) followed by the Ship Wreak and Stranger Games which was organised by BPDC Unplugged. Next in the line for the day were Western Singing (Solo and Duet) and the most exciting event Mr and Miss. Sparks. Sparks 2018 ended with a

special performance by DJ Ramy who is one of the famous DJ's in Dubai and has performed in various music festivals across UAE.

#### **B4.19.22 Ethnic Day 2018:**

The Student Council and Event Management Committee of BITS Pilani Dubai Campus organized Ethnic Day, one of the most awaited events of the year, on 5 November. Every year, the Ethnic day is celebrated on the occasion of the Foundation day of the Institute. The campus was decked with vivid hues and the multi-cultural environment. The campus was on full display as the students flaunted their ethnic pride with their traditional attires. The day concluded with the vivacious performances of both the students and faculty members of the Institute, apart from the various other fun events lined up throughout the day to keep them mesmerized.

#### **B4.19.23 Talk by Dubai Police**

A talk by Dubai Police was organized by SWD to sensitize students and create awareness on banned substances in UAE on 10th October 2018. As a continuous awareness program Col. Suaad and Sergeant Moosa from Department of Narcotics addressed relevant issues. They discussed why students get involved in banned substances and what are the laws of the land, the punishments awarded, if a student is caught involved in any such activity. It was an interactive talk. They brought samples of banned substances and showed them to the students to create awareness. They informed the students to immediately report to the police if they find anyone involved in banned substances so that the student can be rehabilitated. A large number of students attended the talk.

#### **B4.19.24 Gandhi Jayanti Celebration**

BITS Pilani Dubai Campus celebrated Gandhi Jayanti on 2<sup>nd</sup> October 2018, to commemorate the 150th birth anniversary of the father of nation "Mahatma Gandhi". The event started with the lighting of the lamp. It was followed by one of Gandhiji's favorite bhajan "Vaishnav Jan To" by music club (Trebels). Next the drama club of the campus Paribhasha, presented a street play idolizing the values and principles of Gandhi ji. It reflected the life of Gandhi ji, his struggle for Indian independence through nonviolent resistance, his fight against racism and his love for the country. The event ended with floral tributes and prayers to Gandhiji's portrait by the Director, Prof. R.N Saha, faculty, staff and students. The portrait of Gandhi ji was painted by a student of the Campus. Apart from this Social and Environmental Club (Make a Difference) organized blood donation camp and Detergent & soap collection as a part of Dan Utsav. There was also an Art exhibition & Rangoli put up by Art Club (Shades) on the theme of Gandhi ji's ideology of truth and nonviolence. There was a huge involvement from students as a mark of respect to the Father of Nation.

#### **B4.19.25 Health Drive**

To sensitize students on ill effects of junk food, many measures have and are being taken by BITS Pilani Dubai Campus. The Mess menu was revised and items like Burgers and Cutlets which are prepared from frozen food were removed from the menu. A presentation and interactive session was conducted on 4 Oct'18 by Ms Jinu Mary Prasad (Nutritionist & Dietician) guiding students and faculty on how to live a healthy lifestyle. Ms Jinu being an inspiring personality has given various talks and regularly conducts workshops & sessions on healthy diet. She has participated in surveys conducted in different schools and colleges acknowledging deeper into the fact that where today's youth nutrition is lacking and how can they cope up with it. She started with brief introduction on balance diet further adding importance of proteins and carbs in our daily diet. She advised students about having meals in regular intervals, drinking minimum two and a half liters of water and long term effects of eating healthy food etc. She also suggested some ways to deal with stress and anxieties. During the she covered all aspects of living healthy and positive lifestyle. She also answered some of the questions put up by students and faculty. Apart from this a BMI measuring machine was placed in the clinic around 80 faculty, staff and students measured their BMI. This talk was a great advantage to students as they got to understand that being healthy is not about having perfect body or losing weight it's about living healthy. October 18<sup>th</sup> to 18<sup>th</sup> November 2018, as part of BITS Pilani, Dubai Campus commitment to the Dubai Fitness Challenge, Sports Club of BPDC is organizing various group fitness activities for 30 Minutes every day (from 3:30 pm to 4:00 pm). To take the Fitness Challenge to a whole new level, Sports Club has called on board Naveen Arya- finalist of Dil Se Naache India Vale and of Dance India Dance fame, renowned fitness trainer- Rob Edmond- all the way from UK and Yoga

teacher Victoria from IAHV(International Association for Human Values) to show us how the fitness challenge is really done.

#### **B4.19.26 Scholarships**

Financial Assistance to Students- 637 students received financial assistance of AED: **4,538,690/-** under different categories for the Academic Year 2017-18, the details of which are given below:

S.No	Particulars	Students Nos.	Amount in AED
1	Institute Merit Scholarship	535	3,288,190
2	Higher Degree and Doctoral Scholarship	29	116.400
3	Need-based Scholarship (Physically challenged, Bereaved family discount)	6	1,07,400
4	Others (Staff, Siblings, Sports, Special Concessions)	67	1,026,700
<b>Total</b>		<b>637</b>	<b>4,538,690</b>

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Annexure B4-1  
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### SENIOR OFFICERS OF THE INSTITUTE

#### DIRECTOR

Senior Prof. Dr. R. N. Saha

#### ASSOCIATE DEANS

1. Academic – Undergraduate Studies	Dr. KUMAR KARUPPUSAMY
2. Academic - Graduate Studies and Research	Dr. RAMANUJAM KARTHIKEYAN
3. Practice School	Dr. MURALIDHARAN BALADHANDAPANI
4. Student Welfare	Dr. PRITI BAJPAI

#### ASSISTANT REGISTRAR

Mr. Akshay Chutani

#### HEAD OF THE DEPARTMENTS

<u>DEPARTMENT</u>	<u>NAME</u>
1. Chemical	Dr. NISHANT HARISHBHAI PANDYA
2. Civil	Dr. RAMANUJAM KARTHIKEYAN (Acting)
3. Electrical and Electronics	Dr. RAMACHANDRAN ANAND KUMAR
4. Mechanical	Dr. RAMANUJAM KARTHIKEYAN
5. Computer Science	Dr. SUJALA DEEPAK SHETTY
6. Biotechnology	Dr. DAWOOD JALALUDDIN SHARIFF
7. General Sciences	Dr. VIJAYA ILANGO
8. Humanities and Social Sciences	Dr. SHAZI SHAH JABEEN

#### HOSTEL WARDENS

	<u>NAME</u>
Chief Warden	Dr. SANTHOSH KUMAR VASUDEVAN
<u>BLOCK</u>	
A	Mr. VENKATESH NAGAR ANTHEL
B	Mr. HAROLD FRANKLIN
C	Dr. SANTHOSH KUMAR VASUDEVAN
D	Dr. SHASHANK KHURANA
G	Dr. KARTHIYAYINI SRIDHARAN

Annexure B4-2  
(2 pages)**DETAILS OF THE ADMISSIONS MADE DURING THE YEAR 2018****I. First Semester 2018-2019****Admission to Integrated First Degree Programmes****B. E.**

Biotechnology	: 17 (12)
Chemical Engineering	: 09 (03)
Civil	: 09 (03)
Electrical and Electronics Engineering	: 16 (04)
Mechanical Engineering	: 58 (05)
Electronics and Instrumentation Engineering	: 04 (01)
Computer Science	: 157 (57)
Electronics and Communication Engineering	: 25 (11)

**Admission to Higher Degree Programmes****M. E.**

Microelectronics	: 00 (00)
Electrical PED	: 05 (00)
Design Engineering	: 04 (02)
Software Systems	: 08 (03)
Biotechnology	: 00 (00)
M.B.A	: 09 (02)
Ph.D	: 10 (07)

<b>TOTAL</b>	<b>: 331 (110)</b>
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**II. Second Semester 2017-2018****Admission to Integrated First Degree Programmes****B. E.**

Biotechnology	: 01 (01)
Chemical Engineering	: 01 (01)
Electrical and Electronics Engineering	: 01 (00)
Mechanical Engineering	: 01 (00)
Electronics and Instrumentation Engineering	: 00 (00)
Computer Science	: 02 (01)
Electronics and Communication Engineering	: 01 (00)

**Admission to Higher Degree Programmes****M. E.**

Microelectronics	: 00 (00)
Design Engineering	: 03 (00)
Software Systems	: 00 (00)
Biotechnology	: 00 (00)
M.B.A	: 06 (01)
Ph.D	: 05 (03)

<b>TOTAL</b>	<b>: 21 (07)</b>
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**SUMMARY**

	<b>II Semester 2017-2018</b>	<b>I Semester 2018-2019</b>
Integrated First Degree Programmes	07 (03)	295 (96)
Higher Degree Programmes	09 (01)	26 (07)
Ph.D	05 (03)	09 (07)
<b>Total</b>	<b>21(07)</b>	<b>330 (110)</b>

Annexure B4-3  
(1 page)**STATEMENT SHOWING THE NUMBER OF CANDIDATES WHO HAVE BEEN PERMITTED IN THE ACADEMIC YEAR 2017-2018 TO PURSUE VARIOUS DUAL DEGREE PROGRAMMES UNDER VARIOUS PRIORITIES**

S.NO.	ID NO	NAME	PERMITTED TO DUAL
1	2017A7PS0155U	SIMRAN MORE	MECHANICAL

**LIST OF CANDIDATES WHO HAVE BEEN PERMITTED TO TRANSFER WITHIN THE FIRST DEGREE IN II SEMESTER 2017-2018**

S.NO.	ID NO	NAME	PERMITTED TO TRANSFER	
			FROM	TO
1	2017A1PS0012U	MOHAMMED SIYAAM	CHE	MECH
2	2017A2PS0245U	SHRUTHI RAVINDRAN	CIVIL	CHE
3	2017A4PS0047U	VINIITH SARAWATE	MECH	CHE
4	2017A7PS0082U	KAMNA SACHDEV	CS	ECE
5	2017A7PS0207U	ANCHAL NAHATA	CS	MECH
6	2017A7PS0237U	VARSHINI RAJESH	CS	ECE
7	2017A7PS0258U	MOHAMED MUZAMMIL MOHAMED ANWAR	CS	EEE
8	2017A7PS0267U	NIKSHITA SARANGI	CS	MECH
9	2017A7PS0271U	SIMRATJEET SINGH KALAIR	CS	BIOT
10	2017A9PS0138U	ANITA MAHIL INBANATHAN	BIOT	ECE
11	2017A9PS0265U	KAUSHIK PAVULURI	BIOT	ECE
12	2017A9PS0904U	RIGVEDA JANAI	BIOT	CHE
13	2017AAPS0021U	NATASHA KONDATIL KHADER SHANAVAS	ECE	CHE
14	2017AAPS0063U	KARRI SUMANTH REDDY	ECE	CS

## NUMBER OF STUDENTS REGISTERED IN SECOND SEMESTER 2017 – 2018

PROGRAMME	Year of Admission							Total
	2011 and earlier	2012	2013	2014	2015	2016	2017	
<b>A. Integrated First Degree Programmes</b>								
<b>B.E. (Hons.)</b>								
CHE	-	-	1(0)	43(18)	41(23)	28(15)	13(5)	126(61)
CIVIL	-	-	-	-	-	17(4)	12(4)	29(8)
EEE	-	-	3(0)	39(11)	38(16)	17(8)	23(8)	120(43)
MECH	-	1(0)	2(0)	129(7)	128(10)	72(8)	61(4)	393(29)
CS	1(0)	-	1(0)	129(50)	140(64)	126(57)	129(55)	526(226)
EIE	-	-	1(0)	12(9)	5 (2)	2(0)	5(3)	25(14)
BIO	-	-	-	21(13)	31(25)	15(13)	32(23)	99(74)
ECE	-	1(0)	-	54(27)	33(18)	32(15)	25(11)	145(71)
<b>Sub Total</b>	<b>1(0)</b>	<b>2(0)</b>	<b>8(0)</b>	<b>427(135)</b>	<b>416(158)</b>	<b>309(120)</b>	<b>300(113)</b>	<b>1463(526)</b>
<b>B. Higher Degree Programmes</b>								
<b>M.E.</b>								
Software Systems	-	-	-	-	-	7(4)	3(3)	10(7)
Microelectronics	-	-	-	-	-	6(1)	2(2)	8(3)
Design Engineering	-	-	-	-	1(0)	9(0)	7(0)	17(0)
Master of Business Administration	-	-	-	-	-	14(3)	13(3)	27(6)
<b>Ph.D.</b>	1(0)	1(1)	7(3)	7(3)	6(2)	1(0)	9(4)	32(13)
<b>Sub Total</b>	1(0)	1(1)	7(3)	7(3)	7(2)	37(8)	34(12)	94(29)
<b>Total (On Campus)</b>	<b>2(0)</b>	<b>3(1)</b>	<b>15(3)</b>	<b>434(138)</b>	<b>423(160)</b>	<b>346(128)</b>	<b>334(125)</b>	<b>1557(555)</b>

Number of female students is given in brackets.

**NUMBER OF STUDENTS REGISTERED IN FIRST SEMESTER 2018 - 2019**

PROGRAMME	Year of Admission								Total
	2011 and earlier	2012	2013	2014	2015	2016	2017	2018	
<b>A. Integrated First Degree Programmes</b>									
<b>B.E. (Hons.)</b>									
CHE	-	-	-	4(0)	38(23)	28(15)	15(7)	9(3)	94(48)
CIVIL	-	-	-	-	-	17(4)	11(3)	9(3)	37(10)
EEE	-	-	1(0)	10(2)	38(16)	17(8)	23(8)	16(4)	105(38)
MECH	-	1(0)	1(0)	5(0)	128(10)	69(8)	61(5)	58(5)	323(28)
CS	-	-	2(0)	7(1)	137(64)	123(57)	121(52)	156(58)	546(232)
EIE	-	-	-	-	5 (2)	2(0)	5(3)	4(1)	16(6)
BIO	-	-	-	2(1)	31(25)	15(13)	32(22)	17(12)	97(73)
ECE	-	1(0)	-	4(1)	30(18)	31(15)	26(13)	25(11)	117(58)
<b>Sub Total</b>	-	2(0)	4(0)	32(5)	407(158)	302(120)	294(113)	294(97)	1335(493)
<b>B. Higher Degree Programmes</b>									
<b>M.E.</b>									
Software Systems	-	-	-	-	-	2(2)	3(3)	8(3)	13(8)
Microelectronics	-	-	-	-	-	2(0)	2(2)	-	4(2)
Power Electronics	-	-	-	-	-	-	-	5(0)	5(0)
Design Engineering	-	-	-	-	-	2(0)	7(0)	4(2)	13(2)
Master of Business Administration	-	-	-	-	-	7(1)	13(3)	9(2)	29(6)
<b>Ph.D.</b>	2(1)	1(1)	8(4)	3(2)	6(2)	1(0)	8(4)	10(7)	39(21)
<b>Sub Total</b>	2(1)	1(1)	8(4)	3(2)	6(2)	14(3)	33(12)	36(14)	103(39)
<b>Total (On Campus)</b>	<b>2(1)</b>	<b>3(1)</b>	<b>12(4)</b>	<b>35(7)</b>	<b>413(160)</b>	<b>316(123)</b>	<b>327(125)</b>	<b>330(111)</b>	<b>1438(532)</b>

Number of female students is given in brackets.

Annexure B4-5  
(1 Page)**STATEMENT OF DEGREES AWARDED**

Degrees	No. of degrees	
	82 <sup>nd</sup> Award (01 <sup>st</sup> March 2018)	83 <sup>rd</sup> Award (07 <sup>th</sup> July 2018)
<b>B.E. (Hons.)</b>		
Chemical	0	3(1)
Chemical (with PS)	5(0)	38(17)
Electrical & Electronics	0	2(0)
Electrical & Electronics (with PS)	1(0)	27(9)
Computer Science	2(0)	18(4)
Computer Science (with PS)	9(2)	102(44)
Electronics & Instrumentation	0	1(0)
Electronics & Instrumentation (with PS)	1(0)	12(9)
Mechanical	2(0)	9(2)
Mechanical (with PS)	9(0)	117(5)
Biotechnology	0	7(4)
Biotechnology (with PS)	1(0)	12(8)
Electronics & Communication	0	7(3)
Electronics & Communication (with PS)	1(0)	42(23)
<b>Sub Total</b>	<b>31(2)</b>	<b>397(129)</b>
<b>Higher Degree</b>		
M.E. (Software Systems)	0	3(2)
M.E. (Software Systems) (with PS)	0	2(0)
M.E. (Microelectronics)	0	0
M.E. (Microelectronics) (with PS)	0	2(0)
M.E. (Design Engineering)	2(0)	8(0)
Master of Business Administration	4(2)	9(2)
Master of Business Administration (with PS)	0	0
<b>Sub Total</b>	<b>6(2)</b>	<b>24(4)</b>
<b>Ph. D.</b>	<b>2(2)</b>	<b>0</b>
<b>Total</b>	<b>39(6)</b>	<b>421(133)</b>

**SUMMARY**

	82 <sup>nd</sup> Award (01 <sup>st</sup> March 2018)	83 <sup>rd</sup> Award (07 <sup>th</sup> July 2018)	Total
<b>Integrated First Degrees</b>	<b>31(2)</b>	<b>397(129)</b>	<b>425(131)</b>
<b>Higher Degree</b>	<b>6(2)</b>	<b>24(4)</b>	<b>30(6)</b>
<b>Ph. D.</b>	<b>2(2)</b>	<b>0</b>	<b>0</b>
<b>Total</b>	<b>39(6)</b>	<b>421(133)</b>	<b>460(139)</b>



Annexure B4-6  
(1 Page)**82<sup>nd</sup> AWARD OF DEGREES APPROVED BY THE 182<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS**

<b>Programme</b>	<b>Dist.</b>	<b>I</b>	<b>II</b>	<b>Total</b>
B.E. (Hons.) (Chemical)	0	0	0	0
B.E. (Hons.) (Chemical) (with Practice School)	0	1	4	5
B.E. (Hons.) (Mechanical)	0	0	2	2
B.E. (Hons.) (Mechanical) (with Practice School)	0	3	6	9
B.E. (Hons.) (Computer Science)	0	1	1	2
B.E. (Hons.) (Computer Science) (with Practice School)	0	5	4	9
B.E. (Hons.) (Biotechnology)	0	0	0	0
B.E. (Hons.) (Biotechnology)(with Practice School)	0	1	0	1
B.E. (Hons.) (Electronics and Instrumentation)	0	0	0	0
B.E. (Hons.) (Electronics and Instrumentation) (with Practice School)	0	0	1	1
B.E. (Hons.) (Electrical and Electronics)	0	0	0	0
B.E. (Hons.) (Electrical and Electronics) (with Practice School)	0	0	1	1
B.E. (Hons.) (Electronics & Communication Engineering)	0	0	0	0
B.E. (Hons.) (Electronics & Communication Engineering) (with Practice School)	0	0	1	1
<b>Sub Total</b>	<b>0</b>	<b>11</b>	<b>20</b>	<b>31</b>
M.E. (Software Systems)				0
M.E. (Software Systems) (with Practice School)				0
M.E. (Microelectronics)				0
M.E. (Biotechnology)				0
M.E. (Design Engineering)				2
Master of Business Administration				4
Master of Business Administration (with Practice School)				0
<b>Sub Total</b>				<b>6</b>
<b>Ph.D. Degree</b>				<b>2</b>
<b>Total</b>				<b>39</b>

**83<sup>rd</sup> AWARD OF DEGREES APPROVED BY THE 183<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS**

<b>Programme</b>	<b>Dist.</b>	<b>I</b>	<b>II</b>	<b>Total</b>
B.E. (Hons.) (Chemical)	0	2	1	3
B.E. (Hons.) (Chemical) (with Practice School)	5	18	15	38
B.E. (Hons.) (Mechanical)	1	6	2	9
B.E. (Hons.) (Mechanical) (with Practice School)	12	57	48	117
B.E. (Hons.) (Computer Science)	3	11	4	18
B.E. (Hons.) (Computer Science) (with Practice School)	14	56	32	102
B.E. (Hons.) (Biotechnology)	4	2	1	7
B.E. (Hons.) (Biotechnology)(with Practice School)	1	4	7	12
B.E. (Hons.) (Electronics and Instrumentation)	0	1	0	1
B.E. (Hons.) (Electronics and Instrumentation) (with Practice School)	2	6	4	12
B.E. (Hons.) (Electrical and Electronics)	1	1	0	2
B.E. (Hons.) (Electrical and Electronics) (with Practice School)	2	13	12	27
B.E. (Hons.) (Electronics & Communication Engineering)	2	3	2	7
B.E. (Hons.) (Electronics & Communication Engineering) (with Practice School)	5	20	17	42
<b>Sub Total</b>	<b>52</b>	<b>200</b>	<b>145</b>	<b>397</b>
M.E. (Software Systems)				3
M.E. (Software Systems) (with Practice School)				2
M.E. (Microelectronics) (with Practice School)				2
M.E. (Biotechnology)				0
M.E. (Design Engineering)				8
Master of Business Administration				9
Master of Business Administration (with Practice School)				0
<b>Sub Total</b>				<b>24</b>
<b>Ph.D. Degree</b>				0
<b>Total</b>				<b>421</b>

Annexure B4-8  
(3 pages)

**LIST OF ORGANISATIONS WHICH CONDUCTED CAMPUS INTERVIEWS AT  
BITS PILANI, DUBAI CAMPUS**

S NO	Name of the Company	Number of Students Interviewed	Number of Offers	Streams
1	Cerebra Middle East	3	1	M.E (Software Systems)
2	Sunsmart Inc	4	2	M.E (Software Systems) & MBA
3	Taurani Holdings	5	4	M.E (Design Engineering) & MECH
4	Metrohm	2	1	MBA
5	ETA Melco	2	1	MBA
6	Directi	2	0	CS
7	Innominds	2	0	CS
8	Deshpande Foundation	2	0	All Streams
9	Driveline Group	2	1	MECH, M.E. (Design)
10	Tatweer	3	2	CS, M.E (Software Systems)
11	Essentially Precise	2	0	CS, M.E (Software Systems)
12	Adventure HQ	7	4	CS, ECE
13	Project Logistics Services - ABB	2	1	All Streams
14	ICC Loyalty	4	0	CS
15	Fernas	3	0	CS, M.E (Software Systems)
16	Donivo Industrial Solution	3	0	EEE,ECE,EIE,MECH
17	Delta Controls	2	0	EEE,ECE,EIE,MECH
18	HSBC	4	1	CS
19	Orbees Consulting	3	1	All Streams
20	Torreid	2	0	All Streams
21	MAB Facilities	2	0	CS, M.E (Software Systems)
22	Pactive	2	0	MECH, EEE, ECE, EIE
23	Reda Chemicals	2	0	Chem, Mech
24	Prince Worldwide	4	0	EEE,ECE,EIE
25	Taqeef	4	1	MECH
26	Takshashila Consulting	2	0	All Streams
27	Century Financial	2	0	All Streams
28	Ramco Dubai	3	1	All Streams (Except CS)
29	Damac Properties	7	3	All Stream
30	Century Mechanical Systems	2	0	CS and Mech
31	Liberty Building Solutions	4	2	Mech and EEE
32	Lighting Trading Dubai	3	0	EEE,ECE,EIE
33	Scienetechnic Dubai	4	4	EEE,ECE,EIE
34	Al Shirawi	5	3	EEE,ECE,EIE, MECH
35	Bhatia Brothers	2	0	All Streams
36	Medley Capital	2	0	All Streams
37	Sibca	2	0	EEE,ECE,EIE
38	Raymond Sports	2	0	All Streams
39	Swiss Arabian Group	1	0	CS, EEE,ECE,EIE,MECH,BIO,CHEM, MBA

40	Inteligent Partners	2	0	All Streams
41	Talabat	5	2	All Streams
42	Caspian Chemical	4	2	Chemical
43	Captain and Company	2	0	Chemical
44	Waypoint Systems	1	0	CS
45	Crystal Gallery	2	0	All Streams
46	Roamworks	3	1	CS
47	Zomato	4	1	All Streams
48	Dubizzle	5	3	Computer Science
49	MSD	5	3	Computer Science
50	HelpAG	4	1	EIE
51	Unilever	3	1	MECH
52	PwC	12	8	CS,ECE
53	Frontline IT	1	0	CS, M.E (Software Systems)
54	Oriental Dynamic Solutions	5	3	EEE, M.E (Microelectronics)
55	Mittco	2	0	CS, ECE, M.E (Software Systems), M.E (Microelectronics), MBA
56	Epillars	2	1	CS, ECE, M.E (Software Systems), MBA
57	ARJ Group	2	1	MECH
58	Accenture	5	2	CS
59	Emerson	6	4	ECE, EIE
60	Game Change	3	1	CS
61	IBM	3	1	CS
62	Schindler	7	4	MECH, ECE,EEE,EIE,CS
63	Daikin	6	4	MECH, ECE,EEE,EIE,CS
64	Delloitte	4	1	CS
65	CECO	2	0	All Streams
66	Consent Group	2	0	Mechanical
67	BNC networks	2	1	CS
68	WSP	2	1	EEE
69	AI Green Environment Consultant	2	0	CHEM
70	Precise Technologies	2	0	CS, ECE, Software Systems, Microelectronics
71	Ferco Shutters	3	1	MECH
72	Aspire Controls & Solutions	3	1	EEE
73	Advance Building constructions	2	0	CS
74	Unique Computers LLC	3	1	CS
75	Desert Cart	2	1	M.E (Design Engineering)
76	OYO Rooms	1	1	MBA
77	EIC Global	2	1	CHEM
78	ESRI	2	1	CS /IT
79	Intertec systems	2	1	IT
80	Masafi	2	1	ET,Mech
81	Xerox	5	2	CS /IT
82	Hopp Dubai	3	1	CS /IT
83	Spectrum	2	1	CS /IT
84	Carrier Middle East	3	1	Mech, Electrical
85	Elfit Arabia	4	3	Mech, Electrical
86	Metadata Technologies	3	1	All Streams

87	City Solar	2	0	Mech, Electrical
88	Kingsmen	2	0	Mech, Electrical
89	UrbanClap	2	0	All Streams
90	Cox Gomyl	3	1	Mech, Electrical
91	Granteq LLC	2	1	CS/IT
92	Procal Measuring	3	2	Mech, Electrical
93	Protiviti	4	2	CS/IT
94	German Imaging Technologies	3	1	Mech
95	Align Tech	2	0	CS/IT
96	Lamprell	4	1	CS/IT
97	Danway	2	0	Electrical
98	Skyvalue Global FZE	2	0	All Streams
99	DOTS Tech	3	1	CS/ECE/EIE/EEE
100	Emirates SkyCargo	2	0	CS/ECE
101	Febno Technologies	4	2	CS/ECE
102	ESAB	3	2	MECH
103	Pivot Technologies	2	0	CS
104	Wire Card	2	1	CS
105	TUV Nord	3	1	EEE/Mech
106	Arya Engineering	3	2	Mech
107	Ajmal Perfumes	2	0	Chem
108	Polarise ME	2	0	CS
109	Inaya Facilities	2	0	CS/IT
110	Siemens	3	1	CS/IT
111	Dubai Technologies	3	2	CS/IT
112	Kuehne+Nagel	2	1	CS/IT
113	Sika Middle East	2	1	Chem
114	Nuplas Industries	2	1	Mech
115	Zio Tech	2	1	IT
116	NII Consulting	2	1	CS/IT
117	Monaco Engineering Services	2	1	Chem
118	Kone	2	1	Mech

### Summary

Total No. of Companies:	118
Total No. of students interviewed:	345
Total No. of appointments offered:	124
Total No. of PPO Companies:	20
Total No. of PPO:	49

### \*Legend

CHEM: Chemical, CS/IT: Computer Science, EEE: Electrical & Electronics, EIE: Electronics & Instrumentation, MECH: Mechanical, BIOT: Biotechnology, ECE: Electronics & Communication, PPO: Pre Placement Offer

Annexure B4-9  
(21 Pages)

<b>List of First Degree Projects Second Semester 2017-2018 (January 2018 to June 2018)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
1	Aparna Anil	Power System Analysis Using ETAP	Gomathi Bhavani .R	DP
2	Shirsat Ayush Ashish	Modelling Of Robotic Arm To Distinguish And Sort Different 3-D Shapes	Gomathi Bhavani .R	DP
3	Astrid Jerald	Energy Audit Procedures And Levels Of An Academic Building	Gomathi Bhavani .R	DP
4	Jayanti Shyamal	Power System Operation And Protection	Gomathi Bhavani .R	DP
5	Aadhyaa Rai	Sales Analysis And Forcast Prediction Using MS Excel	Sujala Deepak Shetty	DP
6	Miral Apurva Shah	Bpdc Chatbot	Sujala Deepak Shetty	DP
7	Mehta Hiloni Hiteshbhai	IOS Application Development For A Social Cause	Sujala Deepak Shetty	DP
8	Reuben Menezes	Home Automation Using Arduino/Rasberry Pie	Sujala Deepak Shetty	DP
9	Simran Narang	College Chatbot	Sujala Deepak Shetty	DP
10	Vanshika Sharma	Machine Learning Used In Image Classification	Sujala Deepak Shetty	DP
11	R Adhitya	Intrusion Detection In Real-Time Systems	Vadivel .S	DP
12	Bharanidharan R S	Emotion Recognition From Speech Using Deep Learning	Vadivel .S	DP
13	Anchit B Pandey	Mapping Similar Features Of An Image With Other Images	Vadivel .S	DP
14	Ankita Jayprakash Rane	Implementation Of Improved Ship-Iceberg Classifier Using Deep Learning	Vadivel .S	DP
15	Bhuvesh Gaind	Machine Learning	Vadivel .S	DP
16	Chirag Asarpota Anup Kumar	Emotion Detection Using Speech Analysis	Vadivel .S	DP
17	Parv Khandelwal	Identifying Objects In Satellite Images	Vadivel .S	DP
18	Sejal Chopra	Implementation Of Breast Cancer Detection Machine Learning	Vadivel .S	DP
19	Shaleen Bengani	Content-Based Music Recommendation	Vadivel .S	DP
20	Susheel Nath	Image Recognition Using AR Vuforia	Vijayakumar .B	DP
21	Aditya Narendra Papat	SOA And Reflection For Dynamic Aspects - Generate Architectural Specification Abd Comparison With Existing Adls	Vijayakumar .B	DP
22	Aatrayee Bhattacharjee	IMAGE RETRIEVAL FROM DISTRIBUTED DATABASE On INTERNET/INTRANET	Vijayakumar .B	DP
23	Akansha Das	Content Based Video Retrieval From Distributed Database On Intranet/Internet	Vijayakumar .B	DP
24	Amrutha Seshadri	Software Architectural Design And Evaluation For Application Systems With Changing Requirements -Attribute Correctness Using JAVA, JAVASCRIPT Or PYTHON	Vijayakumar .B	DP
25	P Sai Sudharshan	Distributed XML Retrival Using Content	Vijayakumar .B	DP
26	P Vidyadhari	Distributed Audio Retrieval Using Content	Vijayakumar .B	DP
27	Raagashree Ravi	Software Architectural Design And Evaluation For Application Systems With Changing Requirements - Attribute Modifiability	Vijayakumar .B	DP
28	Malvika Sridhar	Design And Implementation Of Biosensors	Dawood Jalaluddin Shariff .D	DP
29	Radhika Jayachandran	Design And Implementation Of Bioelectronics	Dawood Jalaluddin Shariff .D	DP

<b>List of First Degree Projects Second Semester 2017-2018 (January 2018 to June 2018)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
30	Desai Vivek Jayesh	Investment Portfolio Analysis Using R Simulation	Maneesha	DP
31	Sanjeev Gopalakrishnan Thyagaram	Forecasting And Predictive Analytics	Maneesha	DP
32	Vaidya Satyarth Samir	Recurrent Neural Networks For Topic Modeling	Maneesha	DP
33	Neeraja Padman	Monitoring Of Parkinson's Disease Severity Based On Speech Signal Analysis	Swarnalatha .R	DP
34	Daliya George	Fire And Gas Mapping And It's Assessments In Oil And Gas Industries Using PHAST Software	Muralidharan .B	DP
35	Hamza Hussain Khan	Eco Friendly Modernised Society	Tapan Kumar Datta	DP
36	Anketha Kannan	Smart Sustainability Community	Tapan Kumar Datta	DP
37	Abhijeet Guha Roy	Adaptive Density-Based Traffic Control System	Tapan Kumar Datta	DP
38	Rahul Saxena	Age Group Classification With Contrast Control Techniques	Kumar .K	DP
39	Gaur Priya Deepak	Hearing Aid System For Impaired People	Thoppil George Thomas	DP
40	Reshma Mohideen Padiyath	Biometric Authentication Systems	Ramadoss Roop Kumar	DP
41	Arvind Rangarajan	Design And Analysis Of Plate Type Heat Exchangers	Udayakumar	DP
42	Dipak Das	Design And CFD Analysis Of A Cyclone Separator	Udayakumar	DP
43	Vinit Jain	Study Of Steering Systems And Design Of Four Wheel Active Steering	Udayakumar	DP
44	VIVEK J SHAH	Performance And Emission Characteristics Of A Biofuel In SI And CI Engine	Udayakumar	DP
45	Achuyth Somadas Kottayil	Usage Of Variable Geometry In Twin Scroll Turbo System	Udayakumar	DP
46	Jasmitha Johnson Mendonca	Design And Analysis Of Intake And Exhaust Manifolds In Ic Engines	Udayakumar	DP
47	Sai Vijay Venkatesh	Performance And Emissions Of A Si Engine With Octane Boosters.	Udayakumar	DP
48	Zoheb S Razak	Design And Analysis Of An Anti Roll Bar In An Automotive Suspension System	Udayakumar	DP
49	Pankaj Ketan Kumar Solanki	Air Cooling In Automobiles Using Vortex Tube Refrigeration System	Udayakumar	DP
50	Aparna Anil	Closed Loop Pwm Control For Induction Motor Drive Using Dual Output Three Phase Inverter	Adhir Baran Chattopadhyay	DP
51	Mary Shana Thankam	Unified Power Quality Conditioner(Upqc) With Storage Device For Power Quality Problems	Adhir Baran Chattopadhyay	DP
52	Faizal Haris Punnilath	Rfid Technology In Everyday Life	Adhir Baran Chattopadhyay	DP
53	Adith Cheshan	Effect Of Non Linearity In Electrical Machines	Adhir Baran Chattopadhyay	DP
54	Ratul Dhamija	Using Mechanics Of Solids To Design Gears	Venkatanaga Sankaram .M	DP
55	Shivam Mathur	Using Mechanics Of Solids To Design Mechanism Trains	Venkatanaga Sankaram .M	DP
56	Gauri Khanna	Design Optimisation Of Parameters In Sintering Process	Venkatanaga Sankaram .M	DP
57	Rashmi Badri	Application Of Rfid Technology In Contemporary World	Abdul Razak .A.R	DP

<b>List of First Degree Projects Second Semester 2017-2018 (January 2018 to June 2018)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
58	Rohit Vasu	Performance Analysis Of Adaptive Sensing In Cognitive Radio Networks With Hybrid Interweave-Underlay	Abdul Razak .A.R	DP
59	Patil Indraneel Rajeev	Autonomous Self Driving Car Prototype	Abdul Razak .A.R	DP
60	Akshay Niranjana Gidwani	Dynamics And Stiffness Analysis Of Tal Robot	Karthikeyan .R	DP
61	Sagar Vilas Jagtap	Forward And Inverse Kinematics Modeling Of Tal Robot	Karthikeyan .R	DP
62	Siddanth James George	3d Printing Of Tribo Corrosion Attachment For A Wear Test Machine	Karthikeyan .R	DP
63	Abdul Shahid	Simulation Of Tribological Behaviour Of Tool Steel	Karthikeyan .R	DP
64	Kirubakaran Tiroumourougane	Digital Image Correlation Analysis Of Dis-Similar Metal Welded Joints	Karthikeyan .R	DP
65	Afraa Siraj Hussain	Classification And Functions Of Antioxidants In Stress Regulation	Ramachandran .S	DP
66	Nourin Nawshad	Role Of Rubisco Like Proteins In Biological Systems.	Ramachandran .S	DP
67	Maliha Wajahat	Role Of Formate Acetyltransferase In Stress Regulation	Ramachandran .S	DP
68	Nishank Singhal	Application Of Deep Neural Network For Binary Visual Question Answering	Kalaichelvi	DP
69	Mohammed Altaf Ali	Hardware Design Of Four Wheeled Robot Using Arduino	Kalaichelvi	DP
70	Srishti	Visual Based Question Answering Using Deep Neural Network Approach	Kalaichelvi	DP
71	Sushmitha Mani	Mobile Application Development For Bluetooth Controlled Robot Using Arduino	Kalaichelvi	DP
72	SHREYANSH DWIVEDI	Latent Dirichlet Model Application	Suhel Ahmad Khan	DP
73	Abishek M	Design Of A Chemical Solar Model Automobile To Reduce Carbon Footprint In Substitution To Conventional Automobiles	Rusal Raj Francis	DP
74	Harish Karthikeyan	Design And Analysis Of Non Eroding Rocket Nozzle Aiming To Reduce Environmental Impact	Rusal Raj Francis	DP
75	Nikkita Singh	Artificial Intelligence To Diagnose Depression Patients	Kavita Sunil Jerath	DP
76	Mohamed Nawaz Muallim	Designing Effective Engagement In Instructional Techniques & Resource Based Learning	Kavita Sunil Jerath	DP
77	Tarun Krishna Jayachandran	Customer Behavioural Psychology On Experience Design	Kavita Sunil Jerath	DP
78	Joel Stephen	Illuminating The Differences And Similarities In Philosophical Ideas And The Philosophers Of The 20th Century.	Kavita Sunil Jerath	DP
79	Vilkhu Ravneet Inderjeetsingh	Applications Of Smart Grid	Sunil Thomas	DP
80	Ishank Jain	Ddos Mitigation Technique	Santhosh Kumar Vasudevan	DP
81	Velma Donson Panakkal	Motion Activated Security Camera	Santhosh Kumar Vasudevan	DP
82	Manan Mehta	Implementation Of Logic In Gaming Engines	Santhosh Kumar Vasudevan	DP
83	Shourya Kheterpal	Blockchain Technology	Santhosh Kumar Vasudevan	DP
84	Anisha Thankachan	Ehealthcare Management System	Santhosh Kumar Vasudevan	DP



**List of First Degree Projects  
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S.No	Name	Topic	Instructor	Type
85	Abhijeet Guha Roy	Deep Learning Using Neural Network Models	Santhosh Kumar Vasudevan	DP
86	Aishwarya Singh	Epileptic Seizure Prediction And Prevention	Santhosh Kumar Vasudevan	DP
87	Mohamed Aadhif Abdullatheef	Smart Trash Bin Using Arduino Uno	Amaranath .G	DP
88	Ahmed Uzair	Application For Data Collection And Analysis Of Lab Experiments	Amaranath .G	DP
89	Tummala Vudaya Sankar	Recycling Of Plastic	Karthiyayini .S	DP
90	Uthara Sharath	Waste Management	Karthiyayini .S	DP
91	Mohd Nadeem Gouri	Designing An Earthquake Sensor In Comsol	Anand Kumar	DP
92	Anushka Ashok Poojary	Vehicle Emission Tracking Using Iot	Jagadish Nayak	DP
93	Rashmi Badri	Classification Of Diabetic Retinopathy Using Convolutional Neural Networks	Jagadish Nayak	DP
94	Ameena Mohammed Sulaiman	Hardware And Interfacing Of Autonomous Watering System	Jagadish Nayak	DP
95	Gulamaliwala Juzar Hatim	Iot Based Autonomous Watering And Manuring For Plants-Programming	Jagadish Nayak	DP
96	Shaik Afreen Aarza	Iot Based Autonomous Watering And Manuring System For Plants- App Designing	Jagadish Nayak	DP
97	Mayank Minda	Wireless Solar Power Transfer Using Iot	Jagadish Nayak	DP
98	Simran Kaur Bhatia	Gaining Deep Understanding Of Ios Swift3 By Cloning A Social Media Application	Nand Kumar	DP
99	Sahil Sharma	Android Application For Bpdc	Nand Kumar	DP
100	Gowtham S	Design And Development Of Algorithms For Feature Extraction Of Sheet Metal Parts	Nand Kumar	DP
101	Aman Shaikh	Indoor Navigation Using Wifi Fingerprinting	Nand Kumar	DP
102	DIVYANK GUPTA	Strategies for Industrial Growth	Srinivasa Rao	DP
103	Palaparathi Divya	Improvising And Implementing Corporate Social Responsibility (Csr) In Various Modern Businesses Of Uae Region.	Srinivasa Rao	DP
104	Pratyaksh Rohatgi	Designing A Hall Effect Sensor Based Thickness Measurement Device For Sheet Metal Forming	Vilas Haridas Gaidhane	DP
105	Deepak Harinath P G	Object Recognition And Path Planning For Rodego I-Chair	Vilas Haridas Gaidhane	DP
106	Rudhra Seetharam	Automatic On/Off Switch	Vilas Haridas Gaidhane	DP
107	Mukund Chowdhary	Blanking Of Aluminium Sheets	Vishal Gangadh Naranje	DP
108	Abhiraj Singh	Blanking Of Aluminium Sheets	Vishal Gangadh Naranje	DP
109	Saif Zishan Ahmad	Innovation In Hubs And Uprights Design Using Ansys And Solidworks For An F1 Prototype.	Vishal Gangadh Naranje	DP
110	Futane Aneesh Nilesh	Blanking Of Aluminium Sheets	Vishal Gangadh Naranje	DP
111	Krishnaraj Muthukumar	Analysis Of Tube Forming Process	Vishal Gangadh Naranje	DP
112	Prabhudesai Mihir Pralhad	Application Of Deep Learning Techniques For Prediction Of Cement Strength	Vishal Gangadh Naranje	DP
113	Dasari Sai Krishna Kishore	Design And Simulation Of Hearing Aid	Raja Muthalagu	DP
114	Anudeep Sekhar Bolimera	Design Of Unmanned Ground Vehicles For Airports	Raja Muthalagu	DP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
115	Nihal Naineni	Simulation Of A Mimo-Ofdm System	Raja Muthalagu	DP
116	Amrin Jameel Shanaz	Real Time Facial Recognition	Raja Muthalagu	DP
117	Narula Saakshi Rajiv	Implementation Of Real Time Facial Recognition Using Matlab	Raja Muthalagu	DP
118	Mridul Bhandari	Using Data Analysis For Improving The Monetary Benefits In The Financial Market	Siddhaling Urolagin	DP
119	Pranjal Pandey	Sentiment Analysis	Siddhaling Urolagin	DP
120	Sanccheta Sudhakar	Analysis Of Data Using Machine Learning Approaches And Data Analysis	Siddhaling Urolagin	DP
121	Tanisha Jalan	Analysis Of One Dimensional Signals Using Deep Learning	Siddhaling Urolagin	DP
122	Yuvraj Borkhade	Applications Of Data Analytics In The Finance Industry With The Objective Of Wealth Maximization	Siddhaling Urolagin	DP
123	Yashodhan Nitin Naik	Research And Design To Convert A Internal Combustion Automotive To Energy Efficient Electric Vehicle.	Vincent Shantha Kumar	DP
124	Piyush Ajay Batra	Building A Social Media Application For Bits Community.	Shilpee Srivastava Saxena	DP
125	Zubin Sayeed Ahmed Khalfay	Experimental And Simulation Based Study Of Topely-Smith Effect	Eldhose lype	DP
126	Vaibhav Arora	Species Separation Using Graphite Carbon Nitride: A Molecular Dynamics Study	Eldhose lype	DP
127	Dipak Das	Design And Analysis Of Aerodynamic Properties Of Dimpled Surface On Aerofoil.	Priyank Upadhyaya	DP
128	Kartik Krishna	Large Deformation Analysis Of Cellular Structures	Priyank Upadhyaya	DP
129	Ayush Kabra	Lightning Induced Delamination Of Aircraft Composites	Priyank Upadhyaya	DP
130	Milton Gangopadhyay	Analysis Of Cell Structure For A Vehicle	Priyank Upadhyaya	DP
131	Aishwarya Roy	Carbon Dot: Properties, Characterization And Synthesis Of Carbon Dots	Rajib Ghosh Chaudhuri	DP
132	Yash Ashwani Kapoor	Aerodynamic Analysis Of Bodies With Aerospike And Aerodisks	Shashank Khurana	DP
133	Nidhi Lathi	Importance Of Tax Havens And Offshore Financial Centers In International Banking Activity	Natesa Prasad	DP
134	Nikhil Sharma	Business Valuation Of Apple Inc And Qualcomm Technologies Inc	Natesa Prasad	DP
135	Shyamil Gopinathan Nair	Design On Using Solar Panels On Car Body Using Ansys	Gudipadu Venkatesh	DP
136	Varun Vinay Kothari	Design And Development Of Microbial Fuel Cell	Naveen Kumar Shrivatsava	DP
137	Priyanka Venkataraman	Surge Analysis In Pipelines Caused By Water Hammer	Naveen Kumar Shrivatsava	DP
138	Harish Karthikeyan	Design And Analysis Of Disc Brake	Sridhar Gangaputhiran	DP
139	Sohail Atiq Ahmed	Arduino Based Portable Incubator	Mainak Dutta	DP
140	Potdar Shaunak Vikram	Creation Of A Portable Incubator	Mainak Dutta	DP
141	Sandhya Ramaseshan	Estimating Phillips Curve For Gcc Countries	Sartaj Rasool Rather	DP
142	Tejas Shiva Kumar	Ailment Detection App	Gaurav Saxena	DP
143	Jitesh Prasad Gurav	Sentiment Analysis Of Twitter (Social Media) Data To Make Predictions On Changes In Stock Market Prices	Gaurav Saxena	DP
144	B B Balasreevatsan	Kinetics Of Pulverized Coal Combustion	Snehaunshu Chowdhury	DP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
145	Kalvala Rohan Sai	Nox Formation In A Spark Ignition Engine – A Comparison Of Predicted And Experimentally Measured Values	Snehaunshu Chowdhury	DP
146	Arshiya Jamadar	Study Of Cyber Attacks And Proposed Algorithms As Counter Measures	Angel Jothi	DP
147	Carol Sachdeva	Implementation Of Wired Tcp Variants And Study Of Network Intelligence For Iot	Angel Jothi	DP
148	Rishika Mini Thulasi	Detection And Segmentation Of Brain Tumors Using K-Means And Fuzzy C-Means	Angel Jothi	DP
149	Yashika Gupta	Study Of Image Features And Content Based Image Retrieval	Angel Jothi	DP
150	Akanksha Pulin Parikh	Biochemical Analysis Of Salicornia Seeds	Dawood Jalaluddin Shariff .D	LP
151	Rubitha Souresh	Biochemical Analysis Of Salicornia Defatted Seeds And Oil	Dawood Jalaluddin Shariff .D	LP
152	Zainab Fatima Juddy	Laboratory Techniques To Test Body Fluids, Body Samples And Other Substances For Forensic Analysis	Dawood Jalaluddin Shariff .D	LP
153	Syed Razaa Ali	Analysis Of Body Samples And Other Substances Related To Forensic Aspects	Dawood Jalaluddin Shariff .D	LP
154	Kishen Sunil Kumar Parekh	Re-Refinement Of Used Lube Oil	Vijaya Ilango	LP
155	Anoushka Pirta	Simulation Of Ecg Signal Using Mat-Lab.	Swarnalatha .R	LP
156	Nikshita Ranganathan	Analysis And Signal Processing Of Eeg Signals Using Matlab	Swarnalatha .R	LP
157	Sritama Banerjee Gourdas	Monitoring And Parameter Calculation Of Three Phase Ac Motor Using Aurdino	Swarnalatha .R	LP
158	Akshayaa Sridhar	Study Effect Of Environmental Factors On Growth Of Microbial Isolates Associated With Root Nodules Of Acacia Ampliceps.	Neeru Sood	LP
159	Cleo Murali	To Study The Effect Of Temperature And Metal Tolerance On Rhizobial Isolates Isolated From Acacia Sp	Neeru Sood	LP
160	Gitanjali Anil Nair	Development And Validation Of Analytical Method For Selected Drug(S) For Estimation In Bulk And Formulations.	Neeru Sood	LP
161	Manali Parag Phawde	Development And Validation Of Analytical Method For Selected Drug(S) For Estimation In Bulk And Formulations.	Neeru Sood	LP
162	Nitya Bhardwaj	Biological Synthesis Of Zno Nano-Particles And Their Effect On Plant Growth	Neeru Sood	LP
163	Reem Munawar Kaware	Development And Validation Of Analytical Method For Selected Drug(S) For Estimation In Bulk And Formulations.	Neeru Sood	LP
164	Disha Prakash Shahani	Development And Validation Of Analytical Method For Selected Drug(S) For Estimation In Bulk And Formulations.	Neeru Sood	LP
165	Manali Nilesh Korgaonkar	Development And Validation Of Analytical Method For Selected Drug(S) For Estimation In Bulk And Formulations.	Neeru Sood	LP
166	Junia Kadugula	Head Motion Controlled Electronic Wheelchair	Abdul Razak .A.R	LP
167	Aswin Mohandas Narayanan	Materials Characterization Of Various Alloys Prepared Through Casting Machine	Periasamy .C	LP
168	Siddharth Sajjan George	Friction Stir Welding	Periasamy .C	LP
169	Umashankar Nayan Kotharu	Testing Of Friction Stir Welding	Periasamy .C	LP
170	Yash Vijay Zarekar	Microstructural Analysis Of Friction Stir Welding	Periasamy .C	LP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
171	Snehil Rajeev	Incremental Sheet Forming Using Cnc Milling Machine	Karthikeyan .R	LP
172	Mikhail Lalit Chandnani	Dissimilar Metal Welding Of Stainless Steel/Monel Alloy	Karthikeyan .R	LP
173	Deepak Bhatia	Tool Path Planning For Incremental Sheet Forming Using Cnc Machine	Karthikeyan .R	LP
174	Nathean Simon M Gonsalves	Microstructural Analysis And Tensile Behavior Of Dis-Similar Metal Welded Joints	Karthikeyan .R	LP
175	Kapil Hitesh Gohil	Biomass And Its Energy Potential	Prakash Kumar .B.G	LP
176	Rudra Suresh	Analysis Of Biochemical Components In Plants Under Saline Conditions	Ramachandran .S	LP
177	Sharon Elsa Oommen	Analysis Of Biochemical Components Of Plants Used In Animal Feeds	Ramachandran .S	LP
178	Theresa Paul	Development Of Animal Feed For Camel	Ramachandran .S	LP
179	Ayub Amir	Application Of Machine Learning For Solving Inverse Kinematics Problems Of Robotic Manipulator	Kalaichelvi	LP
180	Syed Humaid Bin Haroon	Cloud Connected Sensors Using Arduino	Kalaichelvi	LP
181	Gopika Karanayil Anil	Comparison And Study Of The Efficiency Of Solar Cells With Different Nano Materials	Kavita Sunil Jerath	LP
182	Monica Isukapalli	Evaluation Of Bio Char For Soil Amendment	Geetha	LP
183	Mohamed Shazin	Optimisation Of Mfc On Electrode, Source And Organism.	Geetha	LP
184	Potdar Shaunak Vikram	Harvesting Energy From Microorganisms	Geetha	LP
185	Debashish Sachin Chitnis	Effects Of Metal Nanoparticles On Plant Fungi	Gokhale Trupti Swarup	LP
186	Namisha R Bohara	Effect Of Nanoparticles On Pathogenic Plant Fungi	Gokhale Trupti Swarup	LP
187	Angel Mathew	Study On The Effects Of Metal Nanoparticles On Fungi	Gokhale Trupti Swarup	LP
188	Sidra Raihan	Optimisation Of Process Parameters For Preparing Nanoparticle Systems And Evaluation	R N Saha	LP
189	Rohit Vasu	Designing A Socially Assistive Companion Wheel Chair That Monitors Persons Vitals And Navigates Using Bluetooth Signals	Vilas Haridas Gaidhane	LP
190	Josh Elias Ninan	Analysis Of Incremental Sheet Metal Forming	Vishal Gangadh Naranje	LP
191	Khamarudheen. K.A	Building A 3d Printer	Vishal Gangadh Naranje	LP
192	Deepak Harinath P G	Gsm Based Smart Irrigation System	Sazia Hasan	LP
193	Anudeep Sekhar Bolimera	Simulation Of Smart Inventory Management System Industrial Warehouse Automation	Sazia Hasan	LP
194	Nihal Naineni	Networking Systems For Material Tracking In Industrial Automation	Sazia Hasan	LP
195	Shivank Gupta	Extraction Of Essential Oils For Production Of Bio-Additives Using Vacuum Distillation.	Nishant Pandya	LP
196	Arulkumaran Ajay	Material Selection For Aeronautical Structural Application	Vincent Shantha Kumar	LP
197	Shresh Kumar Mathur	Biocorrosion And Cytotoxic Studies On Zr-Based Bulk Metallic Glasses	Vincent Shantha Kumar	LP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
198	Tarun Krishna Jayachandran	Bio Compatibility Study On Metallic Glasses (Synthesized Materials)	Vincent Shantha Kumar	LP
199	Jithin Gopakumar	Prediction Of Atomic Forces Using Machine Learning	Eldhose Iype	LP
200	Rohen Bhandari	Analysis And Control Of Nonlinear Dynamical Systems	Priyank Upadhyaya	LP
201	Ali Asgar Fazal Abbas Dholfad	Photocatalytic Degeneration Of Phenol From Water(Kinetics)	Rajib Ghosh Chaudhuri	LP
202	Anugraha Pattamukkil Renny	Synthesis Of Pure Copper Catalyst And Hydrogenation Of Used Oil To Increase Calorific Value	Rajib Ghosh Chaudhuri	LP
203	Soares Muriel Perpetual	Modified Copper Catalyst Synthesis And Hydrogenation Of Used Oil To Increase Calorific Value	Rajib Ghosh Chaudhuri	LP
204	Anketha Kannan	Nox Emissions Analysis From Engine Or Manufacturing Plants	Shashank Khurana	LP
205	Syed Ali Abdullah	Experimental Investigation Of Rock-Wool Insulation As Insulator In Concrete Blocks	Shashank Khurana	LP
206	Mohamed Nawaz Muallim	Utilisation Of Organic Wastes And Optimal Waste Management	Shashank Khurana	LP
207	Kosuri Siddhant Sampath	Development Of In-Situ Composite Using Stir Casting Process	Gudipadu Venkatesh	LP
208	Tummala Vudaya Sankar	Abrasive Flow Machining	Gudipadu Venkatesh	LP
209	Akshay Pradeep Kumar	"Further Analysis Of In-Situ Microwave Casting Of Metals"	Gudipadu Venkatesh	LP
210	T Navaneeth Reddy	Thermal Analysis Of Memory Foam	Gudipadu Venkatesh	LP
211	Mohammed Wasif Ansari	Metal Sintering Using The Microwave Oven Furnace	Gudipadu Venkatesh	LP
212	Rachit Mishra	Experimental Studies In Direct Liquid Fuel Cell	Naveen Kumar Shrivatsava	LP
213	Divyansh Sachdeva	Cryptography And Its Relations With Vedic Era	Priti Bajpai	SOP
214	Shaaran Sehgal	Delay Differential Equations	Priti Bajpai	SOP
215	Ammam Agarwal	Prime Number Digitization Using Number Theory	Priti Bajpai	SOP
216	Sidharth Raj Agarwal	Cryptography And Its Applications In Network Security	Priti Bajpai	SOP
217	Murarka Yash Vishnuprasad	Mathematical Analysis Of Brain Drain In India	Priti Bajpai	SOP
218	Malka Yasasvi	Mathematical Analysis Of Green Marketing	Priti Bajpai	SOP
219	Aadhya Rai	Study Of Customers' Preference Of Equine Drugs In Gcc	Shazi Shah Jabeen	SOP
220	Husein Hassan Elhaj	Origin And Development Of Music In Arab World	Shazi Shah Jabeen	SOP
221	Saqin Feby Ashraf	Shyness In Adults: Causes And Effects	Shazi Shah Jabeen	SOP
222	Bhavishya Vishnu Paryani	Stress Management Through Therapeutic Recreation	Shazi Shah Jabeen	SOP
223	Raghav Sardana	Implementation Of Csr In Corporations In Ncr(India)	Shazi Shah Jabeen	SOP
224	Vijaya Gajanan Buddhavarapu	Implementation Of Portable Technology To Aid Those With Autism Spectrum Disorder (Asd)	Shazi Shah Jabeen	SOP
225	Agarwal Tushar Sudhir	Sociolinguistic Variation And Change In Sign Languages	Shazi Shah Jabeen	SOP

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226	Vinayak Sengupta	Implementation Of Video-Games In Assisting The Elderly In Operating Today's Technology	Shazi Shah Jabeen	SOP
227	Krishna G	Nanorobotics	Mary Lourde .R	SOP
228	Himanshu Tyagi	Deep Learning For Image Processing	Sujala Deepak Shetty	SOP
229	Reshma Mohideen Padiyath	Mental Illnesses And Their Early Detection	Dawood Jalaluddin Shariff .D	SOP
230	Rishika Piskala Ravikanth	The Perception Of Diabetes-Free Style Of Life	Dawood Jalaluddin Shariff .D	SOP
231	Anushka Lydia Issac	Study On The Deficiency Of Vitamin D And Human Health.	Dawood Jalaluddin Shariff .D	SOP
232	Sagar Agarwal	Game Theory And Its Applications In Ai	Maneesha	SOP
233	Harshit Gajjar	Application Of Factorial Design And Partial Factorial Design	Maneesha	SOP
234	Meenakshi Sivaramakrishnan	Methods Of Reduction Of CO2 In Environment	Vijaya Ilango	SOP
235	Bidhan Rajesh Jain	Green Buildings And Net-Zero Homes	Vijaya Ilango	SOP
236	Eshwaran V	A Fundamental Study Of Quantum Information Systems	Krishna Kumar Singh	SOP
237	Kodavala Prathyusha	Analysis And Assessment Of Risk Management	Tapan Kumar Datta	SOP
238	Gupta Dev Shahbhudayal	Investment Valuation And Study Of Alternative Investments-A Computer-Based Approach	Tapan Kumar Datta	SOP
239	Parth Poply	Nutrition, Health And Fitness - A Meta-Analysis .	Neeru Sood	SOP
240	Aravindan I	Microwave Sensor For Measurement Of Blood Creatinine Concentration Levels	Ramadoss Roop Kumar	SOP
241	Shruti Arippara Vinodh .	A Study On Project Scheduling Problems	Somasundaram Arumugam	SOP
242	Kelvin Piety Decosta	A Study On Application Of Mathematics In Feed Forward Neural Networks	Somasundaram Arumugam	SOP
243	Mohammed Shoaib	A Study On Application Of Mathematics In Neural Networks	Somasundaram Arumugam	SOP
244	Duseja Dhruv Anant	A Study On Application Of Matrices And Vector Spaces In Machine Learning	Somasundaram Arumugam	SOP
245	Arshad Ahamed	Dual-Source Fed Multi-Phase Induction Motor Drive For Fuel Cell Vehicles: Topology And Control	Adhir Baran Chattopadhyay	SOP
246	Urvashi Kamal Satwani	Water Desalination Using Alternate Forms Of Energy	Bharat Bhushan Gulyani	SOP
247	Mohamed Raashid A	Study & Evaluation Of Mechanism Of Locks	Periasamy .C	SOP
248	Reuben Mathew Thomas	Feasibility Study On Friction Stir Welding Of Aluminium Alloys	Periasamy .C	SOP
249	Arunachalam Abinaya	An Overview On Conversion Of Biomass To Energy	Prakash Kumar .B.G	SOP
250	Amaan Fathima	Methods To Increase Calorific Value Of Biomass	Prakash Kumar .B.G	SOP
251	Aisha Abdul Raouf	Methods To Enhance Efficiency Of Biochar	Prakash Kumar .B.G	SOP
252	Samantha Rachel Ferrao	Current Developments In Diagnosis, Treatment Methods & Prevention Of Genetic Disorders	Ramachandran .S	SOP
253	B B Balasreevatsan	Integrated Waste Management	Rajan Ramaswamy	SOP
254	Ishan Shastri	Recognizing Hand Written Digits Using Neural Networks	Suhel Ahmad Khan	SOP
255	Aastha Anil Jha	Hydrogen Powered Car Using Solar Energy	Kavita Sunil Jerath	SOP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
256	Yash Sinha	Tidal Energy	Kavita Sunil Jerath	SOP
257	Nikhil Jayakumar	Plug-In Hybrid Electric Vehicle Hvac Optimization	Sunil Thomas	SOP
258	Subin John Varghese	Electric Cars With Supercapacitor Batteries	Sunil Thomas	SOP
259	Sandhya Ramaseshan	Big Data Platform And Internet Of Things For Smart City	Santhosh Kumar Vasudevan	SOP
260	Malavika Anand	Robust Optimization Models In Finance	Baskaran .S	SOP
261	Karan Sulekh .	Scm Optimization	Baskaran .S	SOP
262	Palancha Dilipkumar	Aerodynamics Of Bird Flight	Amaranath .G	SOP
263	Saif Zishan Ahmad	Study Of Performance Characteristics Of Using Biodiesel As An Alternative Fuel And Maximising Its Efficiency	Karthiyayini .S	SOP
264	Kosuri Siddhanth Sampath	Advances In Renewable Energy	Karthiyayini .S	SOP
265	Mohd Nadeem Gouri	Energy Generation And Consumption Sources In India	Karthiyayini .S	SOP
266	Abdul Hadi	Selection And Placement Of Solar Panels At Bpdc	Geetha	SOP
267	Abhishek Ajith Kumar	Procurement And Installation Of Solar Panels In Bpdc	Geetha	SOP
268	Muthusrinivaas K	Maintainence And Performance Check Of Solar Panels In Bpdc	Geetha	SOP
269	Solanki Akshar Deepakkumar	Cloud Computing And Its Security	Nand Kumar	SOP
270	Jainis Palkeshkumar Shah	A Hybrid Cloud Approach For Secure Authorized Deduplication.	Nand Kumar	SOP
271	Malvika Sridhar	Ethical Concerns In Doping By Athletes	Srinivasa Rao	SOP
272	Shreea D Mehra	A Study On Employee Engagement - Why And How Companies Should Make It A Strategic Priority	Srinivasa Rao	SOP
273	Radhika Jayachandran	Analysis Of Sports Management	Srinivasa Rao	SOP
274	Goutham Rama Rao Manikonda	Impact Of Sports On Economy	Srinivasa Rao	SOP
275	Abishek M	Inventory Management And Storage Space Planning	Vishal Gangadh Naranje	SOP
276	Sanjeev Gopalakrishnan Thyagaram	Predicting Heart Disease Using Twitter Data	Siddhaling Urolagin	SOP
277	Jaskanwar Singh	Using Computer Vision For Gesture Recognition	Siddhaling Urolagin	SOP
278	Ansari Aadil Shahzad	Microstructural And Mechanical Properties Of Incolloids And Nickel Coated Metals	Vincent Shantha Kumar	SOP
279	Harsith Rani Ashokkumar	Evaluation Of Mechanical Properties On Aerospace Materials	Vincent Shantha Kumar	SOP
280	Siddanth James George	Mathematical Modelling And How It Relates To Various Biological Processes	Shilpee Srivastava Saxena	SOP
281	Snehil Rajeev	Prediction Of Vehicles Required By A Company In Sharjah For The Coming Year.	Shilpee Srivastava Saxena	SOP
282	Mikhail Lalit Chandnani	Minimizing Transportation Cost Of Dispensing Products Manufactured By Sure International L.L.C. Using Transportation Module	Shilpee Srivastava Saxena	SOP
283	Kriti Sharma	Behavior Of Solution Of Delay Differential Equation	Shilpee Srivastava Saxena	SOP
284	Mir Osman Ali Hamza	Turbo Mechanics	Priyank Upadhyaya	SOP
285	Jayant Panwar	Design Landing Gear Capable Of Supporting Impact Of A Drone Dropped From An Approximate Height Of 1 Meter While Minimizing Shock.	Priyank Upadhyaya	SOP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
286	Kaushal Bhagwan Sharma	A Study On Zero-Energy Buildings	Shashank Khurana	SOP
287	Mohammed Yousufuddin Azeem	A Study On Heating,Ventilation And Air Conditioning(Hvac) Systems	Shashank Khurana	SOP
288	Samreen Khan	A Study On Passive Flow Control Using Open Cavity	Shashank Khurana	SOP
289	Ayesha Mohammed Yusuf K	A Study On Electric And Hybrid-Electric Cars	Shashank Khurana	SOP
290	Divyasree V	Study Of Light Pollution, Its Effects And Control Measures	Ms. Sreelakshmi Babu	SOP
291	Abhishek Anil	Study Of Carbon Sequestration On Ocean Beds: Case Study	Ms. Sreelakshmi Babu	SOP
292	Deepak G Nath	Study On Harnessing Solar Power Energy And Its Effects- Sheikh Mohammed Bin Rashid Al Maktoum Solar Park	Ms. Sreelakshmi Babu	SOP
293	Mohamed Anees Zubair	Harnessing Solar Energy For Power Supply • Case Study: Cochin International Airport (Cial)	Ms. Sreelakshmi Babu	SOP
294	Kaustubh Singh	Cryptocurrency Market	Natesa Prasad	SOP
295	Mohammed Abrar Khalid	Mechanical Braking System	Gudipadu Venkatesh	SOP
296	Koripally Akhil Kumar	Cfd Analysis	Gudipadu Venkatesh	SOP
297	Sadhna Jagannathan	Design Of An Energy Efficient Casing For Overhead Tanks	Meghana Charde	SOP
298	Kishen Sunil Kumar Parekh	Composting Of Waste From Hostel: A Case Study Of Bits Pilani Dubai Campus.	Meghana Charde	SOP
299	Dhariyal Rahul Vijay	Waste Management System In Hostel	Meghana Charde	SOP
300	Mary Shana Thankam	Design Of An Energy Efficient Cooling System For Overhead Tanks Based On Off Grid Solar Power	Meghana Charde	SOP
301	Kenish Vipul Shah	3d Printed Buildings(Method And Design Of Buildings Using 3d Printers)	Meghana Charde	SOP
302	Prajna S Athreya	Energy Efficent Retrofit; Case Study: Girls Hostel	Meghana Charde	SOP
303	Dev Khare	Design And Development Of Dmfc	Naveen Kumar Shrivatsava	SOP
304	Mohammed Zafar Ali Khan	Toxicity In Landfills And Other Waste Areas.	Sridhar Gangaputhiran	SOP
305	Vishal Pratap Rayan	Cost Effective And Innovative Housing Technology	Sridhar Gangaputhiran	SOP
306	Mohamed Fayad Aboobacker	Cost Effective Implementation Of Green Energy	Sridhar Gangaputhiran	SOP
307	Faizal Haris Punnilath	Automation In Everyday Life	Sridhar Gangaputhiran	SOP
308	Patil Vrushali Bhausaheb	State-Of-The-Art Study On Pressure And Radio Frequency Sensors	Sridhar Gangaputhiran	SOP
309	Avani Mishra	Study On Generation And Management Of E-Waste	Sridhar Gangaputhiran	SOP
310	Manan Mehta	Urban Development Projects In Ahmedabad: Issues And Challenges	Mrutyanjaya Sahu	SOP
311	Shivang Gulati	Impact Of Digitization And Internet On Smbs In India	Mrutyanjaya Sahu	SOP
312	Varun Sachdeva	Swach Bharat Misson Yojana: An Analysis Of Policy Design And Implementation Gaps	Mrutyanjaya Sahu	SOP
313	Junia Kadugula	Cryptocurrency And Blockchain Analysis	Nilesh Goel	SOP
314	Ismath Haakifa Illiyas Mohamed	Hot Carrier Injection- A Drawback In The Reliability Of Semi-Conductor Devices?	Nilesh Goel	SOP
315	Swathini Thirugnanasambandam	Negative Bias Temperature Instability - A Drawback In The Reliability Of Semi-Conductor Devices ?	Nilesh Goel	SOP
316	Priyanka Venkataraman	Estimating Phillips Curve For Gcc	Sartaj Rasool Rather	SOP



<b>List of First Degree Projects Second Semester 2017-2018 (January 2018 to June 2018)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
		Countries		
317	Rajdeep Ghosh	Forecasting The Prices Of Crypto Currencies	Sartaj Rasool Rather	SOP
318	K Mahathi	How Monetary Policy Works During Recession And Specifically How It Failed During 2008 Financial Crisis.	Sartaj Rasool Rather	SOP
319	Anubhav Gupta	Asymmetric Effects Of Monetary Shocks On Output And Inflation:Evidence From India	Sartaj Rasool Rather	SOP
320	Tawfeeq Tassen	Estimating Foreign Exchange Reserve Demand In India	Sartaj Rasool Rather	SOP
321	Sahil Sharma	A Study On Cellular Automata By Stephen Wolfram	Gaurav Saxena	SOP
322	Amit Kumbhar	Big Data Analysis	Gaurav Saxena	SOP
323	Rhea Remesh Kumar	Big Data Analysis	Gaurav Saxena	SOP
324	Srijeev Sarkar	Data Mining & Analysis - Biomedical	Gaurav Saxena	SOP
325	Nathan Marcus De Castro Monteiro	Fingerprint Authentication For Attendance	Gaurav Saxena	SOP
326	Nikita Ahuja	Data Mining And Analysis - Finance	Gaurav Saxena	SOP
327	Somil Mathur	Using Optical Flow To Analyze Hand And Body Gesture Recognition	Gaurav Saxena	SOP
328	Azfar Hameed	Calculation Of Equilibrium Composition Of Combustion Products	Snehaunshu Chowdhury	SOP
329	Burhanuddin Fakhruddin Surati	Stratification Of Flames For Various Composition And Mixture	Snehaunshu Chowdhury	SOP
330	Syed Mohammad Furqan	Flame Speed In (Aliphatic Hydrocarbon + Air)	Snehaunshu Chowdhury	
331	Kunal Amit Mehta	Cyber Audit And Crypto-Consultancy	Saurabh Jain	SOP
332	Naman Sharma	Android Security And Malware Analysis	Saurabh Jain	SOP
333	Piyush Khandelwal	Network Pen-Testing Techniques	Saurabh Jain	SOP
334	Prachish Pandey	Prevention Of Exploitation Of Vulnerabilities On A Website.	Saurabh Jain	SOP
335	Sujith S	Building Blockchain Based Dapps And Best Practises	Saurabh Jain	SOP
336	Pranav Kaul	Ethical Hacking Tools For Mobile Platforms	Saurabh Jain	SOP
337	Palaparthi Divya	Predicting Stock Markets Using Artificial Neural Networks	Sujala Deepak Shetty	SP
338	Abhishek Anil Mungekar	Measurement Of Temperature In A Weather Station Using Arduino	Swarnalatha .R	SP
339	Yashraj Kalpesh Solanki	Measurement Of Light Intensity In Weather Station Using Labview	Swarnalatha .R	SP
340	Harini M	Effect Of Foliar Application Of Biologically Synthesized Zinc Nanoparticles On Plants.	Neeru Sood	SP
341	Anand Maheshwari	Face Recognition Based Attendance System	Suhel Ahmad Khan	SP
342	Divya Daswani	Face Recognition Based Attendance System	Suhel Ahmad Khan	SP
343	Desai Vivek Jayesh	Prediction Of Stock Market Using Deep Learning/Big Data Analytics	Anand Kumar	SP
344	Reeny J	Eeg Analysis	Anand Kumar	SP
345	Tanishq Rupaal	Penetration Testing For Information Security	Nand Kumar	SP
346	Divyank Gupta	Managing Sport And Entertainment Using Data Analytics	Siddhaling Urolagin	SP
347	Adhitya Durai Rajan Natarajan	Hvac Design Calculation Of A New Four Story Mixed Use Restaurant, Retail, Lodging, And Office Building	Vincent Shantha Kumar	SP

<b>List of First Degree Projects Second Semester 2017-2018 (January 2018 to June 2018)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
348	Pranay Addepalli	Integrable Sustainable Design For A Small Building	Vincent Shantha Kumar	SP
349	Rohit Beriwal	Learning About Ibm Quantum Computer	Angel Jothi	SP

<b>List of First Degree Projects First Semester 2018-2019 (August 2018 to January 2019)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
1	Prabhudesai Mihir Pralhad	Effective Use Of Linguistic Feature For Sentiment Analysis	Shazi Shah Jabeen	DP
2	Nikita Bhargava	Design Of Portal For Hss Department.	Shazi Shah Jabeen	DP
3	Aman Shaikh	Auto Generation Of Code	Sujala Deepak Shetty	DP
4	Avani Gupta	Game Development On Unity	Sujala Deepak Shetty	DP
5	Gayathri Beena Sudheeshkumar	Image Labelling And Description Using Machine Learning	Sujala Deepak Shetty	DP
6	Ambika Jain	Chatbot Using Deep Nlp	Sujala Deepak Shetty	DP
7	Harshit Gajjar	Ios App Development	Sujala Deepak Shetty	DP
8	Aatrayee Bhattacharjee	Network Intrusion Detection Using Deep Learning	Vadivel .S	DP
9	Amrutha Seshadri	Fingerprint Classification Using Deep Neural Networks.	Vadivel .S	DP
10	Mehta Hiloni Hiteshbhai	Sentiment Analysis Using Rnn And Lstm	Vadivel .S	DP
11	Parv Khandelwal	Machine Learning Applied To Attendance Monitoring	Vadivel .S	DP
12	P Vidyadhari	Building Extraction From Satellite Images Using Neural Networks	Vadivel .S	DP
13	Reuben Menezes	Facial Recognition Using Deep Learning	Vadivel .S	DP
14	Sidharth Raj Agarwal	Applied Probability And Stochastic Processes And Its Applications	Maneesha	DP
15	Jayanti Shyamal	Speed Control Of A Squirrel Cage Induction Motor Using Pole Amplitude Modulation	Swarnalatha .R	DP
16	Eshwaran V	Programming With Quantum Computing Paradigms	Krishna Kumar Singh	DP
17	Kartik Shivsharnayya Math	Cost Estimation And Profitability Analysis Of A Chemical Plant	Tapan Kumar Datta	DP
18	Akshayaa Sridhar	Salt Tolerant Rhizobia - Eps Production & Plasmid Isolation From The Bacterial Isolates Associated With Root Nodules Of Acacia	Neeru Sood	DP
19	Hana Aslam Shaikh	Computational Analysis Of Anti Icing System Implemented In Aircraft Wing	Udayakumar	DP
20	Jayasurya Karthik P	Design And Optimization Of Brake Rotors For Disc Braking Systems In An Automobile	Udayakumar	DP
21	Kaushal Bhagwan Sharma	Study Of Turbo Efficiency With Different Exhaust Manifold Designs	Udayakumar	DP
22	Mohammed Ibrahim	Design Analysis Of Landing Gear System Of An Aircraft	Udayakumar	DP
23	Syed Mohammad Furqan	Performance And Simulation Of Ic Engines Using Ricardo Wave	Udayakumar	DP
24	Varun Sachdeva	Designing And Working Of The Hcci Engines	Udayakumar	DP
25	Yadu Garg	Designing Piston Of Hcci Engine	Udayakumar	DP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
26	Pankaj Ketan Kumar Solanki	Design Of Various Combustion Chambers & Fuel Injectors	Udayakumar	DP
27	Adith Cheshan	Extension Of Transient Analysis In Ac Machine (Induction Motor)	Adhir Baran Chattopadhyay	DP
28	Mohammed Anfas Thayyil	Control Aspect Of Multilevel Inverter Based On Modulation Index For Harmonic Redution.	Adhir Baran Chattopadhyay	DP
29	Mohammed Shehzad Sulaiman	Simulation Aspect Of Multilevel Inverter For Harmonic Reduction	Adhir Baran Chattopadhyay	DP
30	Namratha R Dath	Automatic Irrigation System Using A Soil Moisture Sensor	Adhir Baran Chattopadhyay	DP
31	Amrin Jameel Shanaz	Design Of Micro-Strip Patch Antenna	Abdul Razak .A.R	DP
32	Jatin Sangtani	To Develop Real Time Face Tracking System	Abdul Razak .A.R	DP
33	Mahendra Kumar Gurjar	Voice Over Bluetooth System	Abdul Razak .A.R	DP
34	Muthusrinivaas K	Attendance System Using Bluetooth	Abdul Razak .A.R	DP
35	Narula Saakshi Rajiv	Smart Parking System Using Arduino	Abdul Razak .A.R	DP
36	Haaris Abdul Qayum Patel	Optimization Of Tool Path For The Manufacturing Of Free Form Bodies	Dr Periasamy	DP
37	Pranay Addepalli	Testing Of Different Materials For A Pv Cell	Periasamy .C	DP
38	Sai Mahaan Gannavarapu	Testing Of Different Materials For A Pv Cell	Periasamy .C	DP
39	Ansari Aadil Shahzad	Dissimilar Metal Welding- Joint Design And Analysis	Karthikeyan .R	DP
40	Azfar Hameed	Simulation Of Material Behaviour Using Digimat	Karthikeyan .R	DP
41	Burhanuddin Fakhruddin Surati	Tool Path Planning For Isf And Fea Simulation	Karthikeyan .R	DP
42	Manal Zainul Abedeen	Application Of A Serial Manipulator For Sheet Material Forming	Karthikeyan .R	DP
43	Sharon Elsa Oommen	Extraction Of Cellulose From Pennisetum Purpureum For Industrial Applications	Ramachandran .S	DP
44	Mohammed Shoaib	Object Detection And Implementation Using Keras For Robotic Applications	Kalaichelvi	DP
45	Duseja Dhruv Anant	Applications Of Neural Networks For Autonomous Car	Kalaichelvi	DP
46	Kelvin Piety Decosta	Handwritten Text Recognition Using Convolutional And Recurrent Neural Networks For Robotic Manipulators	Kalaichelvi	DP
47	Patil Vrushali Bhausaheb	Data Acquisition Using Ros For The Control Of Robotic Manipulator For The Incremental Sheet Forming Process	Kalaichelvi	DP
48	Ameena Mohammed Sulaiman	Numerical Solution Of Ordinary Differential Equations Using Matlab	Suhel Ahmad Khan	DP
49	Shaik Afreen Aarza	Numerical Differentiation And Integration Using Matlab	Suhel Ahmad Khan	DP
50	Vanshika Sharma	Use Of Probabilistic Models For Mobile Robot Navigation	Suhel Ahmad Khan	DP
51	Jaskanwar Singh	Understanding The Intricate Mathematics Behind Deep Neural Networks	Suhel Ahmad Khan	DP
52	Rhea Remesh Kumar	Artificial Intelligence Used For The Benefit Of The Environment	Kavita Sunil Jerath	DP
53	Hanna Merin James	Design And Implementation Of Efficient Solar Powered Dc-Dc Boost Converter For Loads	Sunil Thomas	DP
54	Lovneesh Nigam	IoT Based Real Time Transformer Health Monitoring System	Sunil Thomas	DP
55	Ashwin Mohata	Sentimental Analysis Of Twitter Tweets	Santhosh Kumar Vasudevan	DP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
56	Yadu Garg	Development Of Website Generator	Santhosh Kumar Vasudevan	DP
57	Yash Kanodia	Game Design Using Unity And Ai	Santhosh Kumar Vasudevan	DP
58	Kiran Govind Kushal	Hlink Decentralized Healthcare	Santhosh Kumar Vasudevan	DP
59	Vaibhav Arora	Analysis Of Construction Labor Productivity In Ncr; Sem Based Approach	Baskaran .S	DP
60	Mohammad Wajih Humayun	Analysis Of Website Characteristics In Tourism Industry In Dubai: A Structural Relationship Based Approach	Baskaran .S	DP
61	Mohammed Farhan Majid	Investigations On Entrepreneurship Intentions Of University Students In Dubai.	Baskaran .S	DP
62	Abid Zayan	Arduino Plant Watering System	Karthiyayini .S	DP
63	Sumangala Subhash	Need For Inclusive Education For Students With Congenital Mental Disorders	Geetha	DP
64	Arshiya Jamadar	Create And Implement A Blockchain And Propose Its Applications	Anand Kumar	DP
65	Abdul Hadi	Graphene Based Radiofrequency Identification Wearable Sensor For Breath Monitoring	Anand Kumar	DP
66	Abhishek Ajith Kumar	Advances In Computational Modeling Of Electronic Devices Based On Graphene	Anand Kumar	DP
67	Teresa George	Implementation Of Fingerprint Detection Algorithm In Raspberry Pi Using Capacitive Touch Finger Print Sensor	Jagadish Nayak	DP
68	Sujith S	Blockchain Applications In Education Industry For Student Community	Jagadish Nayak	DP
69	Areeba Fatima	Designing A Biochemical Sensor To Measure The Level Of Ethylene Released By Climacteric Fruits During Ripening	Gokhale Trupti Swarup	DP
70	Disha Prakash Shahani	Designing A Chemical Gas Sensor To Measure Ethylene Produced From Fruits And Associate It With Fruit Ripening.	Gokhale Trupti Swarup	DP
71	Jainis Palkeshkumar Shah	Price Comparison Website	Nand Kumar	DP
72	Kunal Sethi	Remote Dns Attack Lab	Nand Kumar	DP
73	Yash Kanodia	Detection Of Fake News Using Machine Learning	Nand Kumar	DP
74	Yashika Gupta	Local Dns Attack Lab	Nand Kumar	DP
75	Usaid Saud Changan	Design Of Near Infrared Led Based Non Invasive Glucometer	Vilas Haridas Gaidhane	DP
76	Muthusrinivaas K	Energy Harvesting Using Thermal Sensors	Vilas Haridas Gaidhane	DP
77	Mahendra Kumar Gurjar	Smart Attendance System Using Fingerprint Scanner	Raja Muthalagu	DP
78	Madhav Punjj	Rfid Based Attendance System	Raja Muthalagu	DP
79	Shaun Fernandes	Application Of Image Processing Techniques For Autonomous Car	Raja Muthalagu	DP
80	George Koshy	Controlling Home Appliances Using Microcontroller Using Iot	Sazia Hasan	DP
81	Sachin Samuel Sanjay	Pid Controller In Robotics	Sazia Hasan	DP
82	Anubhav Gupta	Robotics Using Image Processing	Sazia Hasan	DP
83	Ammam Agarwal	Prediction Of Results Using Data Mining	Siddhaling Urolagin	DP
84	Anjali Anilkumar P	Heart Disease Prediction Using Data Mining	Siddhaling Urolagin	DP
85	Sumangala Subhash	Text Summarization	Siddhaling Urolagin	DP
86	Thasneem Jahubar Sathik	Text Mining And Sentimental Analysis	Siddhaling Urolagin	DP
87	Nikita Ahuja	Text Mining	Siddhaling Urolagin	DP

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<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
88	Agarwal Tushar Sudhir	Sentiment Analysis Of Events Using Deep Learning	Siddhaling Urolagin	DP
89	Somil Mathur	Blockchain Solution For The Automotive Industry	Siddhaling Urolagin	DP
90	Bhavishya Vishnu Paryani	Predictive Data Mining Techniques In Detection Of Heart Diseases	Shilpee Srivastava Saxena	DP
91	Joel Stephen	Stock Market Prediction Using Data Mining Algorithms And Techniques	Shilpee Srivastava Saxena	DP
92	Mohammed Shoaib	Web Application With User-Interface For Unique And Interesting Topics.	Shilpee Srivastava Saxena	DP
93	Piyush Khandelwal	Abstractive Text Summarization Using Deep Learning	Shilpee Srivastava Saxena	DP
94	Pranav Kaul	Text Summarization Using Sequence To Sequence Rnns	Shilpee Srivastava Saxena	DP
95	Sadhya Gulati	Computer Simulation Based Study On Dehydration Of Salt Hydrates	Eldhose Iype	DP
96	Mohammed Zaid	MI Based Prediction Of Electronic Structure Properties Of Molecules	Eldhose Iype	DP
97	Anuj Lilhori	Designing And Simulation Of A Small Scale Rod Bending Machine With Chamfer And Drilling Module.	Priyank Upadhyaya	DP
98	Saad Jameel Ahmed	Optimization Of Manufacturing Of Free Form Bodies	Priyank Upadhyaya	DP
99	Sajjad Azeem	Thermal And Structural Analysis Of Turbine Blade At Varying Temperatures	Priyank Upadhyaya	DP
100	Prateek Pramod Kadkol	District Cooling Design & Case Study	Shashank Khurana	DP
101	Rohan Sharma	Flow Analysis Through Variable Area Nozzle	Shashank Khurana	DP
102	Tejas Virbhaval Kuwar	Building Integrated Heat And Moisture Exchange	Shashank Khurana	DP
103	Usama Mohammed Sajid Ansari	Heat Transfer In Radiators In Automotive Vehicles	Shashank Khurana	DP
104	Vaishak Thiruvankitam	Optimization Of Flow Through A Converging- Diverging Nozzle	Shashank Khurana	DP
105	Gayathri Hariharan	Investigation On Use Of Nano-Refrigerants In Solar Thermal Systems	Shashank Khurana	DP
106	Satyajeet Satish Sharma	Hydraulic Braking System Of Hyperloop	Shashank Khurana	DP
107	Lata Abhishek Anil	Inlet And Exhaust Systems Of Automobiles(Lmv)	Shashank Khurana	DP
108	Kartik Mehta	Simulation And Fabrication Of A Bending Machine With Chamfer And Drilling Module	Naveen Kumar Shrivatsava	DP
109	Mohammed Nabeel Khan	Reduction Of The Processing Time Of Free Form Surfaces	Naveen Kumar Shrivatsava	DP
110	Khan Aadil Sayeed	Atmospheric Water Generator	Naveen Kumar Shrivatsava	DP
111	Sohail Atiq Ahmed	Development Of App For Controlling Vitamin D Deficiency	Mainak Dutta	DP
112	Anna Joselin Payyappilly	Development Of Iot Based Home Automation System	Nilesh Goel	DP
113	Himani Bali	Developing An Algorithm For Large Scale Clinical Databases	Nilesh Goel	DP
114	Ayush Chamoli	Implementing An Algorithm For Large Scale Clinical Databases	Nilesh Goel	DP
115	Chirag Jain	Developing Animation For Improved Learning	Nilesh Goel	DP
116	Hrishikesh Uralath	Development Of Mobile App For Iot Based Home Automation System	Nilesh Goel	DP
117	Atul Vijay	Human To Robotic Arm Interface	Nilesh Goel	DP
118	Rohil Malhotra	Home Automation - Using Touch Screen	Nilesh Goel	DP

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		Interface		
119	Shivnarain Ravichandran	Difficulties In Computational Softwares	Gaurav Saxena	DP
120	Joel Kottackakathu Sajan	Self-Quantification	Gaurav Saxena	DP
121	Shaik Sabiha	Web Based Application To Demonstrate Six Degrees Of Separation	Gaurav Saxena	DP
122	Rubitha Souresh	Genetic Engineering Of Cyanobacteria For Isobutanol	Namita Khanna	DP
123	Rohit Beriwal	Study Of Quantum Computers	Angel Jothi	DP
124	Vinayak Sengupta	Study On Neural Networks And Image Processing	Angel Jothi	DP
125	Vijaya Gajanan Buddhavarapu	Detection Of Cancer From Thyroid Histopathology Images Using Deep Learning Algorithms	Angel Jothi	DP
126	Prateek Pramod Kadkol	Study On Hyperloop Technology And Its Design	Deepthi	DP
127	Tejas Virbhaval Kuwar	Study On Hyperloop Technology And Its Design Concept	Deepthi	DP
128	Kunal Sethi	Proof Of Braess's Paradox Using Simulated Road Networks	Deepthi	DP
129	Jayanti Shyamal	Monitoring And Data Analysis Of A Grid Connected Photovoltaic System	Gomathi Bhavani .R	LP
130	Zainab Fatima Juddy	Analysis Of Minerals And Vitamins Content Of Infused Water From Different Vegetables And Herbs In Relation With Human Health	Dawood Jalaluddin Shariff .D	LP
131	Syed Razaa Ali	Evaluation Of The Mineral And Vitamin Contents Present In Detox Water From A Variety Of Fruits And Spices, And Its Correlation With Human Health.	Dawood Jalaluddin Shariff .D	LP
132	Amrin Jameel Shanaz	App Development To Diagnose Parkinson's Disease	Swarnalatha .R	LP
133	Rohit Beriwal	Dft Based Simulation For Gas Sensing	Krishna Kumar Singh	LP
134	Divya Daswani	Green And Lean Inventory Management	Tapan Kumar Datta	LP
135	Shivangi Sharma	Probabilistic Graphical Methods	Kumar .K	LP
136	Gitanjali Anil Nair	Synthesis Of Metal Nanoparticles From Algae	Neeru Sood	LP
137	Gladys N	Synthesis Of Metal Nanoparticles From Plants - Green Synthesis Approach	Neeru Sood	LP
138	Abhinav Chaudhary	Rf Controlled Robotic Vehicle With Metal Detection Project	Periasamy .C	LP
139	Asad Ali Khan	Mini Windmill Power Generation Project	Periasamy .C	LP
140	Reuben Mathew Thomas	Feasibility Study On Friction Stir Welding Of Aluminium Alloys	Periasamy .C	LP
141	Chinnu Prasannan	Dissimilar Metal Welding - Tensile Testing	Karthikeyan .R	LP
142	Josh Elias Ninan	Incremental Sheet Metal For Composite Materials	Karthikeyan .R	LP
143	Krishnaraj Muthukumar	Polymer Matrix Composites Manufacturing	Karthikeyan .R	LP
144	Mridul Aggarwal Ajay Aggarwal	Friction Stir Welding -Simulation And Manufacturing	Karthikeyan .R	LP
145	Rishabh Aggarwal	Dissimilar Metal Welding- Fatigue Crack Propagation	Karthikeyan .R	LP
146	Shehab Abdul Rahim	Friction Stir Welding - Manufacturing And Testing	Karthikeyan .R	LP
147	Varun Sachdeva	Manufacturing And Analysis Of Composites	Karthikeyan .R	LP
148	Farmeena Zulfikher Zakaria	Treatment Of Rejected Water Using Sea Water As Feed	Prakash Kumar .B.G	LP
149	Anna Joy	To Effectively Reduce The Tds Of Ro Rejected Waste Water In Arid Regions	Prakash Kumar .B.G	LP

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150	Patil Indraneel Rajeev	Application Of Kinect Sensor Data Feedback For Incremental Sheet Forming Using Robotic Manipulator	Kalaichelvi	LP
151	Tawfeeq Tassen	Assessment Of Dietary Intake Of Adults(18-20years) And Its Relation To Diabetes In Dubai.	Rajan Ramaswamy	LP
152	Namratha R Dath	Hybrid Phone Charger	Sunil Thomas	LP
153	Yaser Ahmed Khan	Lab Project On Non Renewable Energy	Amaranath .G	LP
154	Meenakshi Sivaramakrishnan	Experimental Analysis On Biochar Used For Solid Amendment.	Geetha	LP
155	Teresa George	Health Care Monitoring System Using Arduino	Anand Kumar	LP
156	Pranjal Pandey	Detection Of Fake News Using Machine Learning	Nand Kumar	LP
157	Prabhudesai Mihir Pralhad	Visual Question Answering On Surveillance Videos	Nand Kumar	LP
158	Areeba Fatima	Designing Liposomal Carrier For Selected Bioactive Compound For Therapeutic Benefits	R N Saha	LP
159	Pratyaksh Rohatgi	Sheet Metal Thickness Measurement Using Hall Effect Sensor	Vilas Haridas Gaidhane	LP
160	Neeraja Padman	Design Of Glucometer To Analyze Glucose Levels Using Near Infrared Spectroscopy	Vilas Haridas Gaidhane	LP
161	Madhav Punjj	Ardiuno Based Fire Fighting Robot	Vilas Haridas Gaidhane	LP
162	Edwin David	Study Of Micro-Structural, Mechanical And Corrosion Properties Of Incoloy And Zinc Alloys	Vincent Shantha Kumar	LP
163	Aparna Rajendra Kumar	Development Of 2d Photocatalyst For Waste Water Treatment	Rajib Ghosh Chaudhuri	LP
164	Aisha Abdul Raouf	To Study Wettability Property Of Fabric Cotton By Using Nanofluid.	Rajib Ghosh Chaudhuri	LP
165	Amaan Fathima	Nano Fluid Preparation For Water Treatment	Rajib Ghosh Chaudhuri	LP
166	Shilpa Sreekumar	Investigation And Modeling Of Bio-Inspired Locomotion	Shashank Khurana	LP
167	Ansari Aadil Shahzad	Improvisations And Testing Of Fuel Cells	Naveen Kumar Shrivatsava	LP
168	Rachit Mishra	Development Of Fuel Cells	Naveen Kumar Shrivatsava	LP
169	Bidhan Rajesh Jain	Comparative Study Of Settlement Prediction Methods	Sridhar Gangaputhiran	LP
170	Potdar Shaunak Vikram	Metabolomics Analysis Of Urine From Mice Induced With Peritoneal Inflammation	Mainak Dutta	LP
171	Chirag Parag Ghag	A Metabolomics Approach To Study The Health Benefits Of Salicornia Bigelovii	Mainak Dutta	LP
172	Woorood Mohamed Dakhel	Biobutanol Production	Namita Khanna	LP
173	Safiya Aafreen	Production Of Hydrogen Using A Co Culture Of Algae And Bacteria	Namita Khanna	LP
174	Vasudharini Venkataraman	Fermentation Of Hydrogen Gas From Bacteria Using Algae As A Source Of Nutrition	Namita Khanna	LP
175	Sulaf Majdeddin Alnaser	Biofuel Production	Namita Khanna	LP
176	Barai Samruddhi Pramod	Production Of Biodiesesl Using Algae	Namita Khanna	LP
177	Shivani Sivakumar	Intelligent Mobile Robot Navigation In Unknown Environments	Gomathi Bhavani .R	SOP
178	Safiya Shaikh	Analysis Of Causes Of Depression Among College Students	Shazi Shah Jabeen	SOP

<b>List of First Degree Projects</b>				
<b>First Semester 2018-2019 (August 2018 to January 2019)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
179	Saad Jameel Ahmed	Study Of Endangered Languages	Shazi Shah Jabeen	SOP
180	Ahamed Hausen Mahmoud Hamoodah	The Advantages And The Disadvantages Of The Technology In Education	Shazi Shah Jabeen	SOP
181	Thasneem Jahubar Sathik	Analyzing The Causes Of Psychological Disorders Among College Students	Shazi Shah Jabeen	SOP
182	Sulaf Majdeddin Alnaser	Children Care By Domestic Help	Shazi Shah Jabeen	SOP
183	Ashwin Mohata	Stock Prediction Using Arima Model	Sujala Deepak Shetty	SOP
184	Komal Harishbhai Dholwani	A Study On Certified Ethical Hacking	Sujala Deepak Shetty	SOP
185	Aakansha Mathur	Social Network Analysis For Fraud Detection	Sujala Deepak Shetty	SOP
186	Andrea Gigi Varghese	A Study On The Prevalence Of Diabetes In The Younger Indian Expats Of Dubai.	Dawood Jalaluddin Shariff .D	SOP
187	Gitanjali Anil Nair	A Study On The Prevalence Of Diabetes In The Adult Indian Expats Of Dubai.	Dawood Jalaluddin Shariff .D	SOP
188	Mohit Mittal	Probability And Statistics In Economic Development & Development Policies	Maneesha	SOP
189	Ankita Jayprakash Rane	Character Level Language Modelling With Hierarchical Recurrent Neural Networks	Maneesha	SOP
190	Yaser Ahmed Khan	Study On Hydroxyapatite Composite Material And It's Uses	Vijaya Ilango	SOP
191	Nupur Vaswani	Standalone Smart Solar-Powered Streetlamp Light Control System	Swarnalatha .R	SOP
192	Suyash Agarwal	Portable Multi-Para Monitor Loggers For Versatile Applications	Swarnalatha .R	SOP
193	Anand Maheshwari	A Study On Mutual Funds And Capital Budgeting.	Tapan Kumar Datta	SOP
194	Mehta Hiloni Hiteshbhai	Study Of Current Trends In Economics And Comparative Analysis Between Nse And Bse	Tapan Kumar Datta	SOP
195	Varsha Rajan	Empirical Analysis Of Women And Entrepreneurship	Tapan Kumar Datta	SOP
196	Divya Daswani	Cycle Domination In Graph And Its Applications	Kumar .K	SOP
197	Razan Moien Adel Mahmoud	Mental Health- Causes And Control	Neeru Sood	SOP
198	Lujain Khaled Subhi Alsadeq	Data Mining Techniques And Breast Cancer	Neeru Sood	SOP
199	Neeharika Senthilkumar	Bioethics And Their Implications In Genetics And Medicine	Neeru Sood	SOP
200	Ashish Ghoshal	A Study On The Applications Of Graph Coloring In Computer Science	Somasundaram Arumugam	SOP
201	Omkar Singh Bakshi	To Develop An Effective Waste Management And Disposal Strategy	Udayakumar	SOP
202	Mridula Saravanan	Rf Based System Design	Abdul Razak .A.R	SOP
203	Aditya B Gupta	Stress And Wear Analysis On Sports Tyres In A Straight Line.	Dr Periasamy	SOP
204	Mohammed Nabeel Khan	Design And Analysis Of An Atmospheric Vortex Engine	Periasamy .C	SOP
205	Allan Barbosa	Methods To Increase Calorific Value Of Biofuel	Prakash Kumar .B.G	SOP
206	Jasiya Harris	Methods To Increase The Energy Value Of Vegetable Fuel	Prakash Kumar .B.G	SOP
207	Sajida Begum M .	Current Advances In Gene Manipulation Of Fishes And Their Applications	Ramachandran .S	SOP
208	Yashodhan Nitin Naik	Evolution Of The Blockchain Technology	Kavita Sunil Jerath	SOP
209	Renoy John Sony	Electric Multi Motor Drives With Improved Induction Machine For Agriculture Wide Span Implement Carrier	Sunil Thomas	SOP



<b>List of First Degree Projects</b>				
<b>First Semester 2018-2019 (August 2018 to January 2019)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
210	Joshuva John	Artificial Intelligence And Its Application In Different Areas	Santhosh Kumar Vasudevan	SOP
211	Goutham Rama Rao Manikonda	Development In Ai .How Deep Blue Beat Humans?	Santhosh Kumar Vasudevan	SOP
212	Adith Cheshan	Structural Equation Modelling On The Moderating Effects Of It Sophistication On Educational Services Practice And Performance.	Baskaran .S	SOP
213	Suraj Krishnan	Estimating The Impact Of Green Manufacturing Technologies On The Consumer Purchasing Behavior In It Sector In Dubai Market: A Sem Based Approach	Baskaran .S	SOP
214	Krishnaraj Muthukumar	Nano Electrodes And Catalysts Of Fuel Cell	Karthiyayini .S	SOP
215	Hanna Merin James	Inclusivity In The Classrooms Affected By Acquired Mental Disorders	Geetha	SOP
216	Era Parihar	Carbon Sequestration On Biochar For Soil Amendment	Geetha	SOP
217	Zaidan Umar	A Study On 5g Evolution And Comparison To 3g/4g	Anand Kumar	SOP
218	Sarthak Sethi	Smart Piezoelectric Roadways	Jagadish Nayak	SOP
219	Simran Nirmal Arora	Recombinant Antibodies	Gokhale Trupti Swarup	SOP
220	Kartik Shivsharnayya Math	Essential Characteristics Of An Entrepreneur For Setting Up A New Venture	Srinivasa Rao	SOP
221	Pranay Addepalli	Sustainable Commerce	Srinivasa Rao	SOP
222	Aaushi Gupta	Management In Developing Countries	Srinivasa Rao	SOP
223	Raksha Lal	Environmental Supply Chain Management	Srinivasa Rao	SOP
224	Sushmitha Mani	The Impact Of Motivation On Employees Job Performance In Various Organizations	Srinivasa Rao	SOP
225	Shraddha	Hyperspectral Sensors And Imaging With Its Applications In Geographical Surveillance	Sazia Hasan	SOP
226	Abhishek Das	Graphene-Based Supercapacitors	Vincent Shantha Kumar	SOP
227	Adithya Pradeep Nair	Bio-Corrosion And Cytotoxicity Studies On Metallic Glasses	Vincent Shantha Kumar	SOP
228	Samaksh Jhalani	Dynamics Of Partial Differential Equation With Application To Ecological System	Shilpee Srivastava Saxena	SOP
229	Padma Priya Murali	An Investigation On Various Air Crashes And Their Causes	Shashank Khurana	SOP
230	Arsalaan Bilal Saiyed	Conceptual Study Of Advancements Of The Modern Hyperloop	Shashank Khurana	SOP
231	Lovneesh Nigam	Latest Power Technologies: Impacts On The Marine Environment: Case Study On HvdC Lighttransmission Systems	Ms. Sreelakshmi Babu	SOP
232	Anjali Anilkumar P	Life Cycle Assessment Of Computer Chips	Ms. Sreelakshmi Babu	SOP
233	Adarsh Satheesh	Analysis Of The System For Purification Of Water - Case Study In National Drinking Water Supply In Ajan	Ms. Sreelakshmi Babu	SOP
234	Fatma N Z Alyazji	Study On Biomedical Waste Management In Uae	Ms. Sreelakshmi Babu	SOP
235	Gowtham K. J .	Validation Of Insulated Shelter For Overhead Tank Using Softwares Catia And Ansys	Meghana Charde	SOP
236	Namisha R Bohara	Nanoparticle-Protein Interactions With	Pallab Sanpui	SOP

<b>List of First Degree Projects</b>				
<b>First Semester 2018-2019 (August 2018 to January 2019)</b>				
<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Instructor</b>	<b>Type</b>
		Implications In Therapeutics.		
237	Ameena Mohammed Sulaiman	Education Status Of Indian Muslim Women In Uae	Mrutujanaya Sahu	SOP
238	Shaik Afreen Aarza	Employment Status Of Indian Muslim Women In Uae	Mrutujanaya Sahu	SOP
239	Shivangi Sharma	Afspa And Human Rights Violation In Jammu And Kashmir	Mrutujanaya Sahu	SOP
240	Yashika Gupta	Status Of Indian Migrant Women In Dubai	Mrutujanaya Sahu	SOP
241	Vanshika Sharma	Corporate Social Responsibility And Business Performance In India	Mrutujanaya Sahu	SOP
242	Vivekanandan S	Good Governance Through E-Governance	Mrutujanaya Sahu	SOP
243	Sara Tabassi	E-Governance And Public Service Delivery System In India: Study Of E-Seva In Hyderabad.	Mrutujanaya Sahu	SOP
244	Aman Shaikh	Facial Feature Extraction To Analyse Whether Subject Is Lying Or Not	Gaurav Saxena	SOP
245	Shaleen Bengani	Replicator Dynamics As A An Explanation Of Conditioned Behavior Of Species In Nature	Gaurav Saxena	SOP
246	Jemima Grace Francis	A Comparative Study Of Different Types Of Biofuels That Can Be Explored In Uae	Namita Khanna	SOP
247	Anaghananda Santhosh Kumar	Earthquake Resistant Structures	Vivek B	SOP
248	Pugalia Nipun Naresh	A Comparative Study Of The Economic Evaluation Criteria Of Highway Projects In India And Uae	Deepthi	SOP
249	Malka Yasasvi	Modernization And/Or Sustainable Transportation System In Growing Cities	Deepthi	SOP
250	Fahad Khan	Road Safety In Urban Areas	Deepthi	SOP
251	Asjad Ahmad	Road Safety In Urban Areas	Deepthi	SOP
252	Sameeksha Samir Amin	Integration Of Iot In Everyday Appliances Using Arduino And Zigbee	Mary Lourde .R	SP
253	Ismath Haakifa Illiyas Mohamed	Integration Of Iot In Households Using Arduino And Zigbee	Mary Lourde .R	SP
254	Syed Furqaan Arif	Integration Of Iot In Institutions Using Arduino And Zigbee	Mary Lourde .R	SP
255	Krishna G	Integration Of Iot In Workplaces Using Arduino And Zigbee	Mary Lourde .R	SP
256	Ankita Jayprakash Rane	Image Captioning Using Deep Learning	Anand Kumar	SP
257	Shikha Sunil	Implementation Of Encoders And Decoders Using Hardware.	Anand Kumar	SP
258	Potdar Shaunak Vikram	Designing Liposomal Carriers For Selected Drug For Therapeutic Benefits	R N Saha	SP
259	Yashodhan Nitin Naik	Practical Conversion Of An Ic Engine Vehicle To Electric.	Vincent Shantha Kumar	SP
260	Shaleen Bengani	Detection And Segmentation Of Fovea And Optic Disc From Retinal Images	Angel Jothi	SP

Annexure B4-10  
(2 pages)

**Special Lectures by Invited Scholars – 2018**

S.No	Name	Topic	Date
1	Professor Bhaskar Bose, Adjunct Faculty, BITS Pilani, Pilani Campus	Delegation	February 21, 2018
2	Mr. Kavikrut, Chief Growth Officer at OYO Rooms, India	Entrepreneurship in the Consumer Internet Business	06 March 2018
3	Surinder K. Suri, President, Global Economic Management and Associates, Ontario Canada	Global Capital Market Outlook Perspective 2018- 2019	27 March 2018
4	Prof. Brendon Larson, Associate Dean, Undergraduate Studies in the Faculty of Environment, University of Waterloo, Canada	Biodiversity-Why It Matters to the Human Well-Being	17 April 2018
5	Professor S. Irudaya Rajan CDS, Kerala, India	Mapping International Migration Evidence from Kerala Migration Surveys, 1998-2018	03 May 2018
6	Dr. Devasmita Chakraverty, Assistant Professor, Science Education, Washington State University, USA	Why do successful people feel like impostors?	09 September 2018
7	Dr. Ravi Ranjan, Senior Assistant Professor, Zakir Husain Delhi College, University of Delhi, India	Exploring Human Dignity as Human Rights: Perspectives from Gandhi and Ambedkar	30 September 2018
8	Dr. Mohan Agarwal, Professor, Business and Director Continuing Education & Community Engagement, Mena College, Dubai	Inspiring Internal Innovation in Organizations	28 October 2018
9	Dr. Arif Billah Dar, Assistant Professor, SMVD University Institute of Management Technology, Ghaziabad, India	Exchange Rate: Determination and Volatility	06 November 2018
10	Mr. Craig Walker and Mr. Rodel Quintain, Lucy Switchgear FZE	Process plant health and safety	22nd February, 2018
11	Dr. Udo Schwingenschloegl, KAUST, Saudi Arabia	Elemental 2D materials beyond graphene: Insights from Computational Theory	18th April, 2018
12	Mr. Sachin Vaidya, Software Sales Manager at Honeywell Process Solutions	Process simulation using Honeywell Unisim design	27th September, 2018
13	Mr. Christian Cruz, TUV Nord, Abu Dhabi	How to make a CV	15th October, 2018
14	Mr Subhash from Scan Technology along with a team from ZOHO visited and met the CS Department faculty and students.	Using Zoho for Application Development	22nd October 2018
15	Mr Chaturvedi head of IT, Al Sharawi group visited and met Faculty from CS for a discussion on pain points in the industry and Academia Industry collaboration	For a Discussion on Academia addressing Pain points in the Industry	23rd October 2018
16	Mr.Danish Syed is currently at Harvard University, specializing in Education, Human Development and Psychology.	“Inter-Disciplinary Programmes for Computer Science Graduates at the Premier Universities”	30th October 2018
17	David R. Nelson, Research Scientist in New York University of Abu Dhabi	Genomics of newly isolated euryhalophilic and halophilic desert green algae	2nd May, 2018

S.No	Name	Topic	Date
18	Dr Chandra Shekhar, Sr Professor from BITS, Pilani, Pilani Campus	VLSI design principles and Recent trends	28.01.18.
19	Mr. Krishna RS, EEE Engineer, Al Ghandi Electronics	External Talk about Illumination Engineering	03.04.18.
20	Mr. Krzysztof Wolnicki from Arup Middle East	Fire Safety Engineering	17.04.18.
21	Mr Mohammed Abdul Bari, Air Accident Investigator from General Civil Aviation	Investigation of Electrical, Electronics, Instrumentation & Communications Systems in an Aircraft Accident	03.05.18.
22	Mr. Bharath Kamath, Abbott Laboratories	Clinical utility of Point of Care Analyzer in Healthcare setup	18.10.18
23	Mr. Eoin O'Loughlin from Arup Middle East	Fire Safety Engineering	30.10.18
24	Dr Hamad Karki & Dr Amit Shukla, Khalifa University, Abudhabi	Robotics and Smart Sensing in Oil and Gas Industry	15.10.2018
25	Mr. Pir Akram, Proto21, Dubai	Demystifying Additive Manufacturing	21.10.2018
26	Prof. Raynald Gauvin, McGill University, Canada.	Scanning Transmission Electron Microscopy (STEM)	14.08.2018
27	Mr. Khaled, ARUP, Dubai	Building Services	30.10.2018
28	Dr.Nahar, President, Desert Science Institute, Jodhpur, India	Solar Energy Applications	19-11-2018
29	Prof. Debjyoti Banerjee from Texas A & M University, USA	Cheap Nano-Manufacturing Technique (Additives) for Clean Energy" by .	09-07-2018
30	Mr. Abin Thomas, Senior Technical Engineer, DNV GL Digital Solutions	Offshore engineering: Brief Overview of Practices	25.11.2018

Annexure B4-11  
(5 Pages)**LIST OF FACULTY MEMBERS WHO ATTENDED VARIOUS CONFERENCES  
AND PRESENTED PAPERS – 2018****Conference Proceedings**

S. No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
1	Akshai A, Ramachandran S, Geetha K, Rajib Ghosh Chaudhuri, Khalil Ur Rahman and B G Prakash Kumar	Sustainable Energy from Napier Grass	Current Trends in Biotechnology-CTBT 2018	-	April 18-19, 2018, Manipal Academy of Higher Education, Dubai Campus
2	Aishwarya Roy, Rajib Ghosh Chaudhuri	Carbon Dot: An Excellent Agent for in Vivo Application in Bioimaging	Current Trends in Biotechnology-CTBT 2018	-	April 18-19, 2018, Manipal Academy of Higher Education, Dubai Campus
3	Abinaya Arunachalam, Kapil Hitesh Gohil, Ramachandran S, Khalil Ur Rahman and B G Prakash Kumar	An Overview on Conversion of Biomass to Energy	Current Trends in Biotechnology-CTBT 2018	-	April 18-19, 2018, Manipal Academy of Higher Education, Dubai Campus
4	Abinaya Arunachalam and Geetha Kannan	Comparative Study on Extraction and Quantification of Phytochemicals from Biomass	Current Trends in Biotechnology-CTBT 2018, April 18-19, 2018,	-	April 18-19, 2018, Manipal Academy of Higher Education, Dubai Campus
5	Monica Isukapalli Geetha Kannan, Khalil ur Rahman , B.G.Prakash Kumar and S.Ramachandran,	Evaluation of Water Retention Capacity of Soil Amended with Biochar, Monica Isukapalli Geetha Kannan, Khalil ur Rahman , B.G.Prakash Kumar and S.Ramachandran,	Current Trends in Biotechnology-CTBT 2018, April 18-19, 2018,	-	April 18-19, 2018, Manipal Academy of Higher Education, Dubai Campus
6	Charde, M., Gupta, R., Vemuri, A.,	Thermal Performance Evaluation of Designed Passive Building Elements in Composite Climate: An Experimental Study	Ist Latin American Conference on Sustainable Development of Energy, Water and Environment Systems,	-	Rio de Janeiro, Brazil. 2018 January 28 – 31.
8	Rajendran, N., Charde, M., 2018	Smart Technology used for Active Daylighting Techniques mainly based on Smart Windows, Artificial Lighting and Daylight Harvesting	Ist Latin American Conference on Sustainable Development of Energy, Water and Environment Systems,	-	Rio de Janeiro, Brazil. 2018 January 28 – 31.
9	Sartaj Rasool Rather.	Do Prices Rise Faster than they Fall – Evidence from India	Annual Conference of The Indian Econometric Society (TIES)		7-9 March, 2018, SMVDU Jammu, India
10	Akshaya Kalyanaraman, Abbinaya Kalyanaraman and Shazi Shah Jabeen	Language Socialization in Virtual Communities	7th Annual International Conference on Language, Literature and Linguistics (L3) 2018 organized by Global Science and		11-12 June 2018, Singapore

S. No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
			Technology Forum, Singapore		
11	Nandakumar Pillai and Dr. R Karthikeyan	Effect of Deep Cryogenic treatment on AISI A8 Tool steel & Development of Wear Mechanism maps using Fuzzy Clustering	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
12	W Qureshi, S Kannan, S Vincent, N N Eddine, A Muhammed, M Gupta, R. Karthikeyan and V Badari	Influence of silica nanospheres on corrosion behavior of magnesium matrix syntactic foam	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
13	Cherish Mani, R Karthikeyan and S Vincent	A study on corrosion resistance of dissimilar welds between Monel 400 and 316L austenitic stainless steel	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
14	Shamith L Saldanha, V Kalaichelvi and R Karthikeyan	Prediction Analysis of Weld-Bead and Heat Affected Zone in TIG welding using Artificial Neural Networks	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
15	S Kannan, S Pervaiz, S. Vincent and R. Karthikeyan	Tool life and surface integrity aspects when drilling nickel alloy	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
16	S Bojanampati, R Karthikeyan, MD Islam and S Venugopal	Comparative study of manufacturing condyle implant using rapid prototyping and CNC machining	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
17	Nandakumar Pillai and Dr. R Karthikeyan	Prediction of ttt curves of cold working tool steels using support vector machine model	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
18	M C Subin, Jason Savio Lourence, R Karthikeyan and C Periasamy	Analysis of materials used for Greenhouse roof covering - structure using CFD	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 2018, V346	BITS Dubai Campus, Nov 2017
19	Kesar Mal Kothari, Vishweshwar Samba, Kinza Tania, Dr R Udayakumar and Dr Ram Karthikeyan	AUTOMATION OF UNDERGROUND CABLE LAYING EQUIPMENT USING PLC AND HMI	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT)	IOP Conference Series: Materials Science and	BITS Dubai Campus, Nov 2017

S. No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
			2017	Engineering, 2018, V346	
20	Akshay Gidwani and Siddanth James, R. Karthikeyan, S. Vincent,	Effect of Entropy Generation on Wear Mechanics and System Reliability	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science and Engineering, 346 (2018) 012076	BITS Dubai Campus, Nov 2017
21	Shresh Kumar, Rebin Anvar, Wookha Ryu, E. S. Park, and S. Vincent,	Biocorrosion Evaluation on a Zr-Cu-Ag-Ti Metallic Glass	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	OP Conference Series: Materials Science & Engineering 346 (2018) 012009	BITS Dubai Campus, Nov 2017
22	Kiran Thomas, S. Vincent , Dipika Barbadikar, Rebin Anwar, Nevil Fernandes, Shresh Kumar	Corrosion Characterisation In Incoloy 925 And 110 Ksi Low Alloy Steel	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science & Engineering 346 (2018) 012010	BITS Dubai Campus, Nov 2017
23	Dipika R. Barbadikar, S. Vincent, A.R. Ballal, D.R. Peshwe, and M.D. Mathew	Optimization of BI test parameters to investigate mechanical properties of P92 steel	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conference Series: Materials Science & Engineering 346 (2018) 012069	BITS Dubai Campus, Nov 2017
24	Mukesh Tomar, Shashank Khurana and R Singh	Road tunnel fires and tunnel lining material	International Conference on Recent Advances in Materials and Manufacturing Technologies (IMMT) 2017	IOP Conf. Series: Materials Science and Engineering, 346 (2018) 012077	BITS Dubai Campus, Nov 2017
25	A Somasundaram	Secure Domination in Graphs	International Conference on Discrete Mathematics and its Applications to Network Science.		BITS Pilani, Goa Campus, July 7 - 10, 2018
26	A Somasundaram	Domination Subdivision number of a graph	Sixtieth Midwest Graph Theory Conference		Purdue University, Fort Wayne, 28-29 September 2018
27	Trupti Gokhale	Synthesis of metal Nanoparticles for Applications in Sustained Agriculture	International Conference on Microbes for Better Tomorrow 2018 Dr. D.Y. Patil University, Pune, India	n/a	17-19 February, 2018
28	Neeru Sood	Microbes for Better Tomorrow	International Conference on Microbes for Better Tomorrow 2018 Dr. D.Y. Patil University, Pune, India	n/a	17-19 February, 2018

S. No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
29	Namita Khanna	Synthetic Biology meets Synthetic Chemistry: In vivo activation of an apo-metalloenzyme using synthetic cofactors.	Genome Systems VII at Centre for Genomics and Systems Biology	n/a	9 February, 2018
30	Upasana Chakraborty, Mary Lourde R	Feature Extraction and Classification of Epileptic EEG signals using Wavelet transforms and Artificial Neural Networks	Springer International conference in International conference in Computational Vision and Bio-engineering ISMAC CVB 2018	1456-1465	May-18
31	Amrithaa Sheshadri, Mary Lourde R.	Enhancement of M51 Image to extract the Spectral Features for classification of stars using HR diagram”	International Conference on Communication and Signal Processing ICCSP 2018, Chennai, India. Elsevier Publication	662 - 666	April 3-5, 2018,
32	Madhurya Kodialbail Divakara and A.R. Abdul Rajak	Throughput analysis in mobile adhoc network: a literature survey	3rdInternational Conference on Design, Engineering and Science (ICDES 2018) Barcelona, Spain,	7 pages	February 22-25, 2018
33	Srinath Hanumanth Rao., V.Kalaichelvi.,R.Karthikeyan.	Real-Time Tracing Of A Weld Line Using Artificial Neural Network	ICIS 2018.,Singapore	275-280	June 6-8.,2018,
34	Anne Joshy, R Swarnalatha ,Seyed Ibrahim Ali	Moving Object Detection Using PCA Algorithm	International Conference on ISMAC in Computational Vision and Bio-Engineering (ISMAC -CVB 2018) organized by SCAD Institute of Technology, Palladam, Tamilnadu,		16-17 May, 2018.
35	Swetha Sivakumar and R. Gomathi Bhavani	Image processing based system for intrusion detection and home security enhancement	3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2018), Bangalore	1676- 1680	May 18-19, 2018.
36	Steve Lobo and R.Gomathi Bhavani	Performance and Comparative Analysis of a Medium Sized, Grid Connected Photovoltaic System for Some Locations in the UAE	Proceedings of 2018 IEEE PES Innovative Smart Grid Technologies Asia (ISGT Asia), Singapore, IEEE Power & Energy Society,	pp. 1215-1220	May 22- 25, 2018
37	8. A. Mir and Vilas H Gaidhane,	“Deriving energy from far field RF signal,	IEEE Proceeding International Conference on Electrical and Computing Technologies and Applications (ICECTA), American University, Ras Al Khaimah, UAE	p 1-4	2018
38	9. Shamith L Saldanha.,V Kalaichelvi and R Karthikeyan.,	Prediction Analysis of Weld-Bead and Heat Affected Zone in TIG welding using Artificial	IOP Conf. Series: Materials Science and Engineering .,Vo.346., 012038	p.1-8	Mar-18



S. No.	Author(s)	Title of the Paper	Conference	Proceedings Pages/ Paper ID.	Date & Place
		Neural Networks	doi:10.1088/1757-899X/346/1/012038IOP : Materials Science and Engineering		
39	Don Joe Martin., Aaditya Saraiya., V.Kalaichelvi., R.Karthikeyan	Vision-Based Forward Kinematics Using ANN for Weld Line Detection with a 5-DOF Robot Manipulator	Advanced Computational and Communication Paradigms Series Title: Advs in Intelligent Syst., Computing.	309-318	Mar-18
40	11. Ketul Patel, Kalaichelvi,V.,Karthikeyan,R.,& Sriparvathi Bhattathiri	Modelling and Simulation of Incremental Sheet Metal Forming Process using CNC Machine Tool	46th SME North American Manufacturing Research Conference, NAMRC 46, Texas, USA., Procedia Manufacturing ,Vol.26	95-106	Jul-18
41	Srinath Hanumanth Rao., V.Kalaichelvi.,R.Karthikeyan.	Real-Time Tracing Of A Weld Line Using Artificial Neural Network	17th IEEE/ACIS International Conference on Computer and Information Science, ICIS 2018	275-280	June 6-8.,2018,
42	Ankita Rane, Anand Kumar	Sentiment Classification System of Twitter Data for US Airline Service Analysis	2018 IEEE 42nd Annual Computer Software and Applications Conference (COMPSAC)	Paper ID: 8377739 Volume: 01 Pages: 769 - 773	Jul-18
43	S. Rajeswari, A. Somasundaram, Nishrin Abdul Gafoor, Trupti Gokhele Swarup, Neeru Sood and S. Arumugam	A computational approach to identify the role of potassium transporter in barley	International Conference on Therotical Computer Science and Discrete Mathematics		December 03-05, 2018, SSN College of Engineering (SSNCE), Chennai

## LIST OF RESEARCH PUBLICATIONS – 2018

## Journal Publications

S.No.	Author(s)*	Title of the Publication	Journal	Vol.	Pages
1	Rajib Ghosh Chaudhuri, Ashwin Chaturvedi, Eldhose lype	Visible light active 2D C3N4-CdS hetero-junction photocatalyst for effective removal of azo dye by photodegradation	Materials Research Express (IOP Publisher)	5	36202
2	Eldhose lype, Zubin Sayed Ahmed Khalfay, Rajib Ghosh Chaudhuri, B. G. Prakash Kumar	Epsomite dehydration: A molecular dynamics study	Journal of Energy Storage (Elsevier Publisher)	20	337-343
3	Abinaya Arunachalam, Rajib Ghosh Chaudhuri, Eldhose lype, B. G. Prakash Kumar	Surface Modification of Phoenix dactylifera Seeds by Using Potassium Hydroxide for Wastewater Treatment to Remove Azo Dye	Water practice and Technology (IWA Publisher)	doi: 10.2166/wpt.2018.095	
4	N Kumar, VH Gaidhane, RK Mittal	Clustering and analysis of electricity consumption patterns in educational building	Journal of Engineering Technology	6 (2)	537-547
5	Milu Mary Philip, Vaibhav Shah and Vijayakumar	Estimation and Generation of Software Architectural Specification to Handle Variation Points	International Journal of Software Engineering and Knowledge Engineering World Scientific Publishing Company DOI:10.1142/S0218194018500444 World Scientific Publishing Company DOI: 10.1142/S0218194018500444	Vol. 28, No. 10 (2018)	1517-1534
6	Raheena, M., G. Sridhar and R. G. Robinson	Constant Rate of Strain Consolidation Testing using Conventional Fixed Ring Consolidation Cell.	Indian Geotechnical Journal	<a href="https://doi.org/10.1007/s40098-018-0299-1">https://doi.org/10.1007/s40098-018-0299-1</a>	-
7	Sridhar, G., R. G. Robinson and K. Rajagopal	Horizontal Coefficient of Consolidation from Inward and Outward Flow Tests.	Proceedings of the Institution of Civil Engineers - Ground Improvement	171(3)	159-166
8	Sheetal Desai, Srinivasa A. Rao, Shazi Shah Jabeen.	Developing cultural intelligence: learning together with reciprocal mentoring	Human Resource Management International Digest	26(3)	38-40
9	Sheetal Desai, Shazi Shah Jabeen, Waheed K Abdul, Srinivasa A Rao	Teaching cross-cultural management: A flipped classroom approach using films	The International Journal of Management Education	16 (3)	405-431
10	A. Srinivasa Rao	Title of Chapter : A Study on Micro Women Entrepreneurs in U.A.E. Book Title : Entrepreneurship in the MENA : Dynamics in Trends, Policy and Business environment	Springer		449-475

S.No.	Author(s)*	Title of the Publication	Journal	Vol.	Pages
11	Sartaj Rasool Rather	Asymmetric impact of relative price shocks in presence of trend inflation	Applied Economics Letters	<a href="https://doi.org/10.1080/13504851.2018.1494800">https://doi.org/10.1080/13504851.2018.1494800</a>	
12	Debkumar Chakraborty, P. Sankar Ganesh, P. C. Suryawanshi, B. G. Prakash Kumar, S. Ramachandran	Title of Chapter: Thermophilic Biomethanation of Food Waste for the Production of Biogas and Concomitant Use of Biogas as a Fuel Supplement for Cooking Chapter 17 In Bioprocess Engineering for a Green Environment	Taylor & Francis	ISBN: 9781138035973	
13	Nandakumar Pillai, R. Karthikeyan and J. Paulo Davim	Heat treatment effects on tribological characteristics for AISI A8 tool steel and development of wear mechanism maps using K means clustering and neural networks	Tribology - Materials Surfaces & Interfaces	12	
14	N. Pillai, R. Karthikeyan, S. Kannan, S. Vincent	Effect of Cryogenic treatment on VIKING cold working tool steel and development of wear mechanism maps	Procedia Manufacturing	26	329-342
15	Shashank Khurana, Kojiro Suzuki and Ethirajan Rathakrishnan	Simultaneous Control of Vortex-Sizes around Spike Root and Body Base for a Blunt-Nosed Cylindrical Body	International Review of Aerospace Engineering	11	176-185
16	Sundar. K, R. Udayakumar and Shashank Khurana	Experimental Investigations On Emissions Characteristics Of A Variable Compression Ratio Engine Operated On Dual Fuel Mode Using Diesel And Biodiesel (Obtained From Cotton Seed Oil And Rice Bran Oil)	Journal of Mechanical Engineering Research and Developments	41	59-66
17	Naveen K. Shrivastava, Rajkumar B. Chadge, Pritam Ahire, Jayant P. Giri.	Experimental investigation of a passive direct ethanol fuel cell	Ionics	In press	
18	Siddhaling Urologin,	"Sentiment Analysis, Visualization and Classification of Summarized News Articles: A Novel Approach"	International Journal of Advanced Computer Science and Applications (IJACSA)	9(8)	616-625
19	Siddhaling Urologin, Sunil Thomas,	3D Visualization of Sentiment Measures and Sentiment Classification using Combined Classifier for Customer Product Reviews	International Journal of Advanced Computer Science and Applications (IJACSA)	9(5)	60-68
20	Rida Khan, Siddhaling Urologin	Airline Sentiment Visualization, Consumer Loyalty Measurement and Prediction Using Twitter Data	International Journal of Advanced Computer Science and Applications (IJACSA)	9(6)	380-388
21	Yang Yang, Siddhaling Urologin, Abhishek Niroula, Xuesong Ding, Bairong Shen and Mauno Vihinen,	"PON-tstab: Protein Variant Stability Predictor. Importance of Training Data Quality"	International Journal of Molecular Sciences,	19(4)	

S.No.	Author(s)*	Title of the Publication	Journal	Vol.	Pages
22	A Balasubramanian, A Somasundaram, B Vasanthi	Institutional preparedness for e-governance in Indian Affiliating Universities: A study on the views of Administrative Faculty	International Journal of Pure and Applied Mathematics	119(15)	3205-3214
23	Dana Mohamed Asraf, Vijaya Ilango and S. Ramachandran	Characterization of biomass quality of high yielding Napier grass species for forage applications	International Journal of Eco. Env. & Cons.	24 (3) (1430-1434)	
24	Uday Narayan Pan, Pallab Sanpui, Anumita Paul , and Arun Chattopadhyay	Surface-Complexed Zinc Ferrite Magnetofluorescent Nanoparticles for Killing Cancer Cells and Single-Particle-Level Cellular Imaging	ACS Applied Nano Materials	1	2496–2502
25	Mainak Dutta, Brajesh Singh et al.	Metabolomics reveals perturbations in endometrium and serum of minimal and mild endometriosis	Scientific Reports	8	43109
26	Meenu Maan, Jeffrey M Peters, Mainak Dutta, Andrew Patterson	Lipid metabolism and lipophagy in cancer	Biochemical and biophysical research communications	504	582-589
27	Jayashree Acharya, Mainak Dutta, Koel Chaudhury, Bratati De	Metabolomics and chemometric study for identification of acetylcholinesterase inhibitor(s) from the flower extracts of <i>Nymphaea pubescens</i>	Journal of Food Biochemistry	42	43108
28	Devisree, S. and Kumar, A	Fault detection and analysis of bistable rotaxane molecular electronic switch - A simulation approach	The Journal of Experimental Nanoscience, Journal of Experimental Nanoscience	13 (1)	144-159
29	S. Sinha, Mary Lourde R., T. V. C. Sarma, Hiroyuki Hashiguchi and K. R. Tuckley	Doppler Profile Tracing Using MPCF on MU Radar and Sodar: Performance Analysis	IEEE Geoscience and Remote Sensing Letters,	15(4)	508-511
30	3. S. Sinha, Mary Lourde R., T. V. C. Sarma, J. S. Pillai and K. R. Tuckley	Spectral Feature-Based Classification of Wind Profiler Power Spectra	IEEE Transactions on Geoscience and Remote Sensing	56(4)	2138-2146
31	Bibina V C, Upasana Chakraborty, Mary Lourde R	Signal Processing Methods of Diagnosing Alzheimer's Disease Using EEG - A Technical Review	International Journal of Biology and Biomedical Engineering, North Atlantic University Union	12	100-113
32	Praveen Kumar Reddy Yelampalli , Jagadish Nayak , Vilas Gaidhane	Medical image rigid registration using a novel binary feature descriptor and modified affine transform	IET Image Processing	12(3)	337-344
33	Praveen Kumar Reddy Yelampalli ; Jagadish Nayak ; Vilas Gaidhane	Daubechies wavelet-based local feature descriptor for multimodal medical image registration	IET Image Processing	12(10)	1692-1702
34	Praveen Kumar Reddy Yelampalli ; Jagadish Nayak ; Vilas Gaidhane	A novel feature descriptor for multimodal medical image registration	IET Image Processing	online First	

S.No.	Author(s)*	Title of the Publication	Journal	Vol.	Pages
35	Ajay Kamath and R. Swarnalatha,	Intelligent Parking System using Circle Hough Transform	Journal of Engineering and Applied Sciences	13(13)	4981-4986
36	Raja Muthalagu	A Survey on Precoding and Decoding Design in MIMO and OFDM Systems	Journal of Communications	13(2)	45-59
37	Raja Muthalagu	Transceiver Design for MIMO Systems with Individual Transmit Power Constraints	Int. Journal of Electrical and computer engineering, IAES	8(3)	1583-1595
38	Raja Muthalagu, Rahul Sudheer, and Seyed Ibrahim	FPGA Implementation of Optimized QPSK and OQPSK Using VHDL	Journal of Communications	13(4)	182-186
39	Raja Muthalagu and Subeen Jain	Reducing the time required by KASUMI to generate output by modifying the FL and FI functions	Iran Journal of Computer Science, Springer.	Online First.	01-Aug
40	Raja Muthalagu	Non-linear and Non-iterative Based Transceiver Design for SU-MIMO Systems	Journal of Communications and Information Networks, Springer	3(2)	14-22
41	Raja Muthalagu	Both the Single user and Multi user MIMO System Design with Individual Transmit Power Constraint and Improper Constellation	International Journal of Space-Based and Situated Computing, Inderscience Publishers	8(2)	105-114
42	Raja Muthalagu	Mitigation of DME Interference in LDACS1 based Future Air-to-Ground (A/G) communications	Cogent Engineering, Taylor & Francis	5(1)	16 pages
43	Raja Muthalagu and Subeen Jain	Modifying the structure KASUMI to improve its resistance towards attacks by inserting FSM and S-Box	Journal of Cyber Security Technology, Taylor & Francis	2(1)	37-50
44	Aaron D'costa <sup>1</sup> , Abdul Razak, Shazia Hasan	Analysis and comparison of fast multiplier circuits based on different parameters	International Journal of Engineering & Technology	7(3)	1189-1192
45	Shazia Hasan, A.B.Chattopadhyay, Mohammed Abdul Jabbar, Sunil Thomas	Steady State Stability Analysis of a CSI-fed synchronous motor drive using Digital modeling	Journal of Mechanics of Continua and Mathematical Sciences	13(3)	69-86
46	M. Bhuvaneshwari, Dr. Shazia Hasan, Dr. Abdul Razak	Study on soliton pulse and its characteristics for fiber optic communication	International Journal of Engineering & Technology	7(4)	2845-2848
47	Vilas H Gaidhane and Yogesh V Hote	An efficient edge extraction approach for flame image analysis	Pattern Analysis and Applications (Springer)	online first	01-Dec
48	Vilas H. Gaidhane, Y. V. Hote, V. Singh.	"An efficient similarity measure approach for PCB surface defect detection	Pattern Analysis and Applications (Springer)	21(1)	277-289
49	Siddhaling Urologin and Sunil Thomas	3D Visualization of Sentiment Measures and Sentiment Classification using Combined Classifier for Customer Product Reviews	International Journal of Advanced Computer Science and Applications(IJACSA)	9(5)	60-68
50	Shubhankan Mukherjee, Adhir Baran Chattopadhyay, Sunil Thomas	Electrostatic field theoretic approach to analyze the partial discharge phenomenon pertaining to insulation degradation	International Journal of Engineering & Technology	7(2)	842-848

S.No.	Author(s)*	Title of the Publication	Journal	Vol.	Pages
51	Sunil Thomas, K. Nithiyananthan	A Novel Method to Implement MPPT Algorithms for PV Panels on a MATLAB/SIMULINK Environment	Journal of Advanced Research in Dynamical and Control Systems	10(4)	31-40
52	Thomas, S., Rihan Khan, M., & Chattopadhyay, A.	Design and construction of a prototype vertical axis wind turbine (VAWT) for battery charging application.	International Journal of Engineering & Technology	7(2)	621-625
53	Gowrishankar Kasilingam, K.Nithiyananthan, Priyanka Ramesh Mani, Sunil Thomas	GSM based dual power enhanced LED display notice board with motion detector	International Journal of Engineering & Technology	7(2)	559-566
54	Gowrishankar Kasilingam, K.Nithiyananthan, Sunil Thomas	Wireless integrated-sensor network based subsea tunnel monitoring system	Journal of Advanced Research in Dynamical and Control Systems	10(12)	647-658
55	Sunil Thomas, K Nithiyananthan and Ali Akbar Eski	A Novel Linear Braking Control System for a Separately Excited DC Motor Subjected to Dynamic Braking	Journal of Advanced Research in Dynamical and Control Systems	10(11)	230-238

### Books Chapter Publications

S No	Title	Authors	Publishing House	Year and Month of Acceptance/ Publishing
1	Functional Nanomaterials and Nanotechnologies: Applications for Energy and Environment	Authors: Seba Sara Verghese, Saino Hanna Varghese, Sundaram Swaminathan, Krishna Kumar Singh and Vikas Mittal	Central West Publishing, Australia	Feb, 2018
2	Chapter 1: Recent Advances in Nanocarbon-based Polymer Composite Materials as Membranes in Fuel Cell Applications	Authors: Seba Sara Verghese, Saino Hanna Varghese, Sundaram Swaminathan, Krishna Kumar Singh and Vikas Mittal	Springer	Jan, 2018
3	Chapter 2: Theoretical Insights into Gas Molecular Adsorption on Graphene: Implications for Gas Sensing Applications	Authors: Seba Sara Verghese, Saino Hanna Varghese, Sundaram Swaminathan, Krishna Kumar Singh and Vikas Mittal	Springer	Jan, 2018
4	Chapter 3: DFT based Investigation of N <sub>2</sub> O Adsorption on Graphene and Heteroatom doped Graphene	Authors: Seba Sara Verghese, Saino Hanna Varghese, Sundaram Swaminathan, Krishna Kumar Singh and Vikas Mittal	Springer	Jan, 2018
5	Emerging Trends of Nanotechnology in Environment and Sustainability A Review-Based Approach	Editor: Karthiyayini Sridharan	Springer	Jan, 2018
6	Nanotechnology to Sustain a Clean Environment	Shanelle Govekar, Ravi Kumar, Rajesh Suresh and Karthiyayini Sridharan	Springer	Jan, 2018
7	Reducing the Impacts of Greenhouse Gases	T. Vuday Sankar, Dhruvil Patel, R. Sugaraj Samuel and G. Amaranath	Springer	Jan, 2018
8	Nanotechnology in the Food Industry—And the Benefits and Improvements in Food Processing and Packaging Brought About by it	H. Kasi Viswanathan, Nikhil Reji Thomas and G. Amaranath	Springer	Jan, 2018

S No	Title	Authors	Publishing House	Year and Month of Acceptance/ Publishing
9	Nanotechnology for Sustainable Raw Mineral Extraction and Use	Kritin Chugh, Ashish Kapur and Kavita Jerath	Springer	Jan, 2018
10	Nanotechnology in Energy Harvesting	Shyam Krishna and Kavita Jerath	Springer	Jan, 2018
11	Nanomaterials-Based Adsorbents for Water and Wastewater Treatments	Iris Gopalakrishnan, R. Sugaraj Samuel and Karthiyayini Sridharan	Springer	Jan, 2018
12	Water Remediation by Nanofiltration and Catalytic Degradation	R. Sugaraj Samuel and Karthiyayini Sridharan	Springer	Jan, 2018
13	Magnetic Nanomaterials and Their Use in Water Treatment	Kavita Jerath	Springer	Jan, 2018
14	Thermophilic Biomethanation of Food Waste for the Production of Biogas and Concomitant Use of Biogas as a Fuel Supplement for Cooking ,Book Chapter ISBN: 9781138035973, May 08, 2018, Routledge,	Debkumar Chakraborty, P. Sankar Ganesh, P. C. Suryawanshi, B. G. Prakash Kumar, S. Ramachandran,	Taylor & Francis.	(2018)
15	Bioethanol Production from Food Crops;	Ramesh C Ray, S Ramachandran;	Elsevier, 1st edition	August, 2018
16	Innovative Design, Analysis and Development practices in Aerospace and Automotive Engineering ISBN-978-981-13-27179	Jasjeev singh MVN Sankaram Sachin Salunkhe Authors of chapter on ' Formula SAE Power increment'	Springer	Feb. 2018

Annexure B4-13  
(2 pages)

### List of Higher Degree Dissertations

#### Second Semester 2017-2018 (January 2018 to June 2018)

During the **Second Semester 2017-2018**, 20 Higher Degree dissertation projects have been completed. The list of completed Higher Degree dissertations during Second Semester 2017-2018 is given in below

S. No	Name	Topic	Supervisor
1	Ramakrishna Karanth, P	Impact of Nanoparticle Additives in Polymer Composite Strengthening, Through Injection Moulding Process	Dr. MVN Sankaram
2	Pragya Garg	A Data Science Methodology to understand Diabetes Data using R	Dr. SiddhalingUrolagin
3	Aswani K Babu	Biometric Voice Authentication	Dr. Sujala D Shetty
4	Mohammed Nadeem Azad	A Systematic approach to green and sustainable procurement practices using e-procurement	Dr. Santhosh Kumar
5	Kenneth Ashley Lobo	Design and Analysis of Incremental Sheet Metal Forming	Dr. Vishal GangadharNaranje
6	NithinVakkachanMaliakal	Laser optimization in Armored Steel using Desing of Experiments	Dr. VenkateshGudipadu
7	Rohan ShankerKapdi	Design & Performance Analysis of Cross Flow & Force Draft Cooling Tower	Dr. Naveen Shrivastava
8	Arun N	Bio-Corrosion Studies on Novel Zr37Co34Al10Cu10Ti8	Dr. Vincent Shantha Kumar
9	S Achyuth Kumar Reddy	Design and Development of Direct Liquid Fuel Cells	Dr. PriyankUpadhyaya
10	P Sai Deep	Effect of Lubrication & Coating on Tribological Properties on Cold Working of Tool Steel	Dr. Ram Karthikeyan
11	SwaroopRajendraPande	Frictionless Permanent Magnetic Clutch	Dr. R Udayakumar
12	Rahul Rajendran	Overcoming Constraints to Growth of Small and Medium Enterprises - Dubai	Dr. Shazi Shah Jabeen
13	AiswaryaVenugopalanAlapuzha	Analysis of Sustainability Reports in the Finance Industry of UAE	Dr. Natesa Prasad
14	Upanyas	Corporate Social responsibility and Business Performance in United Arab Emirates	Dr. MrutujanjayaSahu
15	Mansi Saxena	Leadership Challenges in UAE Corporate Environment	Dr. A Srinivas Rao
16	MedarametlaNavaneeth Kumar	IPO Underpricing	Dr. Natesa Prasad
17	Syed Muhammad Mufazzal Hussein	Sustainability in Universities	Dr.Anand Kumar
18	AromalAjith	Similarities and Differences Between Traditional Ventures and Technological Ventures - Dubai	Dr. Shazi Shah Jabeen
19	Rahmath Ali	Comparative Study of Smart City Metrics Among Indian & Global Cities and their Importance in Project Success	Dr.Anand Kumar
20	Raj Sourabh Panda	Disaster Management (Comparative Assessment of Public & Private Sectors)	Dr. A Srinivas Rao



During the **first semester 2018-2019**, 9 higher degree dissertation projects were completed. The list of completed higher degree dissertations during first semester 2018-2019 is given below:

**First Semester 2018-2019 (August 2018 to December 2018)**

S. No.	Name	Topic	Supervisor
1	Anil Kumar P	A New Bitstream Based Control of Regenerative Variable Speed Drives	Dr. Vilas Haridas Gaidhane
2	Gokul Vijayaraghavan	Failure Analysis of Air Valves in Pump Station	Dr. Snehaunshu Chowdhury
3	Manulal S	An Experimental Case Study on Corrosion Characterization of Zr Based Metallic Glass	Dr. Vincent Shantha Kumar
4	Aleem Muneer Sheriff M	Budgeting and Financing Major events in Ecommerce	Dr. Natesa Prasad
5	K.N. Nikhil	Optimization of Resources in Ship Repair Yards using Project Management Tools	Dr. S. Baskaran
6	Mohammed Wasim M	Challenges Faced by SME in Obtaining Bank Credits / Loans in UAE	Dr. Srinivasa Rao
7	Neeraj Kumar	Offloading Processor Intensive Tasks onto the Cloud and Cloud Load Balancing	Dr. Sujala D Shetty
8	Nikhil Chandra Sekhar	Business Analysis and Marketing Strategies of Aesseal	Dr. Srinivasa Rao
9	Sai Eswari S	Leadership Practices, Issues and Challenges: A Study from Small and Medium Scale Organizations in UAE	Dr. Srinivasa Rao

Annexure B4-14  
(2 pages)**List of First Degree Thesis****Second Semester 2017-2018 (January 2018 to June 2018)**

<b>S.No</b>	<b>Name</b>	<b>Topic</b>	<b>Supervisor</b>
1	Srinivas Sarkar	Applying the Theory of Constraints to the Furniture Industry for Process Improvement	Dr. Vishal Gangadhar Naranje
2	Akshai A	Energy Analysis of a Biomass	Dr. B G Prakash Kumar
3	Dcosta Aaron Cajetan Andrew	Implementation of Network Security on Chip	Dr. A R Abdul Rajak
4	Aishwarya Krishnan	Passive Flow Control over an Airfoil using Novel Vortex Generators	Dr. Shashank Khurana
5	Divyank Sood	Development of a Cost Effective, Portable AFM setup and experimental Analysis using the Setup.	Dr. Gudipadu Venkatesh
6	Srishti Gupta	Design and Analysis of Linkage System for the Control Surface of a Flight Vehicle	Dr. MVN Sankaram
7	Kunj Parekh	Correlation between Blockchain, Cryptocurrencies and Renewable Energy	Dr. Naveen Kumar Srivastava
8	Aravind Prasanth	Optimization Of The Powertrain Of An Fsaec Car	Dr. Shashank Khurana
9	Alina Zaidi	Data Analytics for Movie Revenue Prediction	Dr. Siddhaling Urolagin
10	Samena Shabnam	Facial Expression Recognition using Machine Learning Techniques	Dr. S Vadivel
11	Saugaat Allabadi	Leveraging Blockchain for Identity Management and Recruitment Sector	Dr. Sujala D Shetty
12	Sai Amit	Computational Techniques in Cryptocurrency	Mr. Gaurav Saxena
13	Saad Al Ameen Bayezed	Secure Fingerprint Biometric Authentication Using Deep Learning & Minutiae Verification	Dr. S Vadivel
14	Wasil Ahmad	Design and Implementation of Augmented Reality model for Gaming Application	Dr. B Vijaykumar
15	Rida Khan	Predictive Analysis of Airlines using Tweets	Dr. Siddhaling Urolagin
16	Rewant Rakesh Verma	Video Games as an application of Blockchain Technology	Dr. Sujala D Shetty
17	Kunal Malhotra	Large Scale Sentiment Analysis Using Apache Spark	Dr. V Santosh Kumar
18	Dsouza Ritwick Joseph	Analysis of Mirai Botnet and its Derivatives using HoneyPot	Mr. Saurabh Jain
19	Mohammad Yahya	Designing and Implementing Data Join Techniques on HADOOP	Dr. V Santosh Kumar
20	Srinath Hanumantha Rao	Deep Learning for Image Captioning	Dr. Jagadish Nayak
21	Arpita Shajil Das	MicroBial Synthesis of Copper Nanoparticle and Study of its effect on Foliar application on Pepper Plant	Dr. Ramachandran S
22	Maurell Alex Dsouza	Nutritional Properties of the Extracts of Salicornia	Dr. D Jalaluddin Shariff
23	Amita Shajil Das	Microbial Synthesis of Manganese Nanoparticles and effect of Foliar Application of the Nanoparticles on the Growth of Tomato	Dr. Neeru Sood

S.No	Name	Topic	Supervisor
24	Manav Pillai	Anti-fungal Activity of Metal Nanoparticles	Dr. Trupti Gokhale
25	Shivani Chelliah	Gigabit Passive Optical Network: Network Model for Internet Connectivity in High-Speed Smart Trains	Dr. T G Thomas
26	Saptadeep Debnath	Hand Gesture Control of a Robot using Intelligent Techniques	Dr. V Kalaivhelvi
27	Francis David Vuppuluri	Study and Analysis of Photovoltaic System	Dr. Gomathi Bhavani
28	Amrithaa Seshadri	Design of A Microstrip Patch Antenna using Metamaterials	Dr. Navneet Gupta
29	Bushra Mahmood	Smart Dustbin	Dr. A R Abdul Rajak
30	Atharva Rajesh Kshirsagar	Color Composition in Photography	Dr. Nilesh Goel
31	Abhinav Paliwal	Design and Analysis of Efficient Solar Cells	Dr. Vilas H Gaidhane
32	Bachchhav Aditya Swapnil	Competitive Intelligence in a Chemical Organization	Dr. Rudal Raj
33	Rohen Bhandari	Analysis and control of Non-Smooth Dynamical Systems	Dr. A.B. Chattopadhyay

#### First Semester 2018-2019 (August 2018 to December 2018)

S.No.	Name	Topic	Supervisor
1	ANGEL MATHEW	Studying the effect of synthesized bimetallic nanoparticles on intracellular pathways in breast Cancer cells	Pallab Sanpui Dr.
2	JASMITHA JOHNSON MENDONCA	Study on the corrosion behaviour of Zr based Metallic Glasses in various environments	Vincent Shantha Kumar Dr.
3	KALVALA ROHAN SAI	Simulation of IC engine using a commercial CFD software and analysis of flow characteristics	Snehanshu Chowdhury Dr.
4	KAPIL HITESH GOHIL	Catalytic Pyrolysis of Biomass	Rajib Ghosh Chaudhuri Dr.
5	ROHIT LAKSHMANAN	Design, Modelling and Simulation of a Wind Power Energy System using a Doubly Fed Induction Generator	Chattopadhyay A.B.Dr.
6	SHRESH KUMAR MATHUR	Development of Bio-Magnesium based Materials	Vincent Shantha Kumar Dr.
7	VAIDYA SATYARTH SAMIR	Computational Intelligence Algorithms and its Applications	Sujala D. Shetty Dr.
8	ARJUN TONY YESODHARAN	Extraction of Bio-Oil from Napier Grass	Prakash Kumar B G Dr.
9	TIROUMOUROUGANE, KIRUBAKARAN	Effect of Sweepback Angle on Aerodynamic Drag in High Speed Flows	Shashank Khurana Dr.

Annexure B4-15  
(3 pages)

**DETAILS OF DISTRIBUTION OF PS I STUDENTS AND FACULTY OVER PRACTICE SCHOOL- I  
STATIONS DURING THE SUMMER TERM 2017-2018**

(03.06.2018 – 30.07.2018)

S. No.	Station	No. of Students	No. of Faculty
<b>I. Stations in United Arab Emirates (UAE)</b>			
<b>la. Stations at Abu Dhabi</b>			
1.	Atom Engineering Solutions	5	1
2.	Maricon Electromechanical Contracting LLC	5	1
3.	Super Cement Manufacturing Co. LLC	3	1
4.	TUV Nord*	6	1
<b>lb. Stations at Ajman</b>			
5.	Moalajah FZC	4	1
<b>lc. Stations at Al Ain</b>			
6.	Coca Cola	4	1
<b>lc. Stations at Dubai</b>			
7.	2b Innovations	3	1
8.	Al Bawadi Road Contracting LLC	8	1
9.	Al Faizan Electrical Installation LLC	4	1
10.	Al Ghandi Electronics*	4	1
11.	Al Tamimi Engineering Services LLC*	4	1
12.	Atlab(Centena Group)*	2	1
13.	CKR IT Consulting	3	1
14.	Delphi Consulting*	4	1
15.	Eastern Biotech and Life Sciences	6	1
16.	Electromech	5	1
17.	Emphor FZCO*	2	1
18.	Energy Automation DMCC	4	1
19.	ESMA Group	3	1
20.	FedEx Express	4	1
21.	Globelink Weststar	2	1
22.	Granteq LLC	3	1
23.	HIMA ME FZE	4	1
24.	Indogulf Testing and Inspection Services	3	1
25.	Intercoil International Co. LLC*	6	1
26.	Kyoto Technologies*	4	1
27.	L&T Electrical and Automation*	7	1

S. No.	Station	No. of Students	No. of Faculty
28.	Levtech Consulting*	4	1
29.	Middle-East Data Systems (MDS TS)	4	1
30.	Meta Technology	4	1
31.	Oasis Investments Company LLC	2	1
32.	Ocean Corner Water Treatment Equipment and Chemical LLC*	3	1
33.	Ottomans International Technologies	4	1
34.	Photon Technologies	4	1
35.	Reliance Facilities Management	2	1
36.	Rove Electric	2	1
37.	Road and Transport Authority (RTA)	3	1
38.	Safedata ME	4	1
39.	Sanbook Quality Consulting	7	1
40.	Spira Power Gasket Manufacturing LLC	4	1
41.	StarB2B Consultancy Services*	4	1
42.	Steinweg-Sharaf FZCO	4	1
43.	Total Weighing and Measuring Laboratory (TCAL)	3	1
44.	Techrobotix FZCO	4	1
45.	Tecpro Solutions*	4	1
46.	Tendercare	4	1
47.	TUV Nord*	4	1
48.	Velocity Ventures	4	1
49.	Voltas Limited	4	1
50.	WhizKey Intelligent Systems	4	1
<b>Ie. Stations at Sharjah</b>			
51.	AASA ME	4	1
52.	Mohammed Abdul Rahman Al Bahar LLC	3	1
53.	Al Green Environmental Consulting	2	1
54.	L&T Power Transmission and Distribution	2	1
<b>II. Stations in India</b>			
<b>Ila. Stations at Bangalore</b>			
55.	Cygate Cloud Services Pvt.Ltd.	3	1
56.	Eltropy	4	1
57.	Intel	3	1
58.	Lavelle Networks Private Limited	2	1
59.	Satakarni Estate-Shapoorji	3	1
60.	Venus Technologies	3	1

S. No.	Station	No. of Students	No. of Faculty
<b>IIb. Stations at Hyderabad</b>			
61.	GMR Group	7	1
62.	Golla Engineering Private Limited	5	1
63.	INVECAS	6	1
64.	Shalivahana Group	5	1
<b>IIc. Stations at Mumbai</b>			
65.	L&T Infotech	3	1
66.	National Petroleum Construction Company (NPCC)	4	1
67.	Oil and Natural Gas Corporation Limited (ONGC)	3	1
68.	Parker Hannifin	4	1
<b>IIId. Stations at New Delhi</b>			
69.	Airport Authority of India	4	1
70.	Avery Dennison	4	1
71.	Bhushan Steel	5	1
72.	Clues Network	4	1
73.	Fracton Technologies	5	1
74.	Girnar Soft	5	1
75.	Grant Thronton	3	1
76.	HCL Technologies	4	1
77.	Infrastructure Leasing & Financial Services	3	1
78.	J & S Wireless Pvt Ltd	3	1
79.	RailTel Corporation of India	3	1
80.	Reliance Industries Limited	4	1

**Summary:**

Total number of students	310
Total number of Stations	80
Total number of Faculty	22**

**Note:**

\* - also PS II station

\*\* - Each PS I Faculty was allotted more than one station to monitor.

Annexure B4-16  
(3 pages)**SOME PRACTICE SCHOOL- II STATISTICS**

Statistical Details of the Distribution of Students &amp; Faculty over Practice School-II during the year 2017-18:

S. No.	Name of the PS Station	Second Semester 2017-18 20.01.2018 – 02.07.2018		First Semester 2018-19 01.08.2018 – 03.01.2019		Total No. of Students
		No. of Students	No. of Faculty	No. of Students	No. of Faculty	
<b>A. Stations at Abu Dhabi</b>						
1	Atom Engineering Solutions	-	-	2	1	2
2	ATECO	2	1	-	-	2
3	Huawei	2	1	-	-	2
4	McWane Gulf	3	1	-	-	3
5	Mideast Data Systems (MDS TS)	2	1	-	-	2
6	Monaco Engineering Solutions	-	-	1	1	1
7	Specialized Oil Products	-	-	2	1	2
8	Thyssenkrupp Elevators	1	1	3	1	4
9	TUV Nord*	1	1	4	1	5
<b>B. Stations at Ajman</b>						
10	Elfit Arabia	3	1	4	1	7
11	KHK Scaffolding	5	1	6	1	11
<b>C. Stations at Dubai</b>						
12	Al Ghandi General Trading	-	-	2	1	2
13	Al Tamimi Engineering Services LLC*	-	-	2	1	2
14	Aristo Star General Trading LLC	-	-	3	1	3
15	Aspire Controls & Solutions	-	-	2	1	2
16	Astrid Oasis	1	1	2	1	3
17	Atlab (Centena Group)*	-	-	8	1	8
18	Automation and Power Solutions	3	1	-	-	3
19	Azbil Corporation	4	1	3	1	7
20	Berkeley Group	-	-	3	1	3
21	Calyx	-	-	3	1	3
22	Caspian Chemical FZCO	2	1	-	-	2
23	Cerebra ME FZCO	1	1	-	-	1
24	Crowe Horwath Mak Ltd.	-	-	3	1	3
25	DAIKIN ME	5	1	-	-	5
26	Deloitte & Touche (M. E)	3	1	-	-	1
27	Delphi Consulting*	3	1	2	1	5
28	DLINK	2	1	-	-	2
29	Dubizzle	1	1	-	-	1
30	Eagle Industries DWC LLC	3	1	-	-	3

31	Environmental International Consultants (EIC)	1	1	2	1	2
32	Emerson Final Control	7	1	-	-	7
33	Emerson Rosemount	12	1	15	1	27
34	Emirates	-	-	4	1	4
35	EMPHOR FZCO (Centena Group)*	-	-	3	1	3
36	Energy Automation DMCC*	2	1	-	-	2
37	ESMA Group*	-	-	3	1	3
38	Fractal Systems	11	1	5	1	5
39	HIMA ME FZE*	2	1	-	-	2
40	Hydro ME Inc.	3	1	3	1	3
41	Intercoil International Co. LLC*	-	-	4	1	4
42	International Center for Biosaline Agriculture (ICBA)	4	1	6	1	10
43	IQVIA(IMS Health)	-	-	1	1	1
44	Johnson Controls	2	1	4	1	6
45	Kantar World Panel	1	1	-	-	1
46	Kemipex FZE	-	-	3	1	3
47	Kyoto Technologies*	7	1	11	1	18
48	L & T Electrical & Automation FZE	8	1	6	1	14
49	Levtech Consulting*	-	-	4	1	4
50	Lucy Switchgear FZE	2	1	2	1	4
51	Manlift ME LLC	4	1	-	-	4
52	Masafi Co. LLC	4	1	2	1	6
53	Medley Capital	2	1	-	-	2
54	Monaco Engineering Solutions	2	1	2	1	4
55	Middle East Investment and Management Consultancy	3	1	-	-	3
56	Merck Shape and Dohme DHC	5	1	5	1	10
57	Merck Shape and Dohme DIC	2	1	-	-	2
58	Nuplas Industries	2	1	-	-	2
59	Ocean Corner Water Treatment Equipment & Chemical LLC	2	1	3	1	5
60	Otis Elevators	-	-	2	1	2
61	Oriental Dynamics Solutions	2	1	-	-	2
62	Paramount Computers	-	-	2	1	2
63	Procal Measuring & Control Equipment	4	1	-	-	4
64	Protiviti Member Firm Middle East Consultancy	3	1	2	1	5
65	PWC Digital Services	8	1	-	-	8
66	RNS Technology	2	1	-	-	2
67	Scan Technology	3	1	-	-	3



68	Schindler Middle East Head Quarter	4	1	-	-	4
69	Siemens LLC	2	1	4	1	4
70	StarB2B Consulting Services*	-	-	4	1	4
71	Total Weighing and Measuring Laboratory (TCAL)*	-	-	3	1	3
72	Tecpro Solutions*	-	-	2	1	2
73	Teknoware	-	-	1	1	1
74	Thomson Reuters	-	-	1	1	1
75	Thyssenkrupp Elevators	2	1	3	1	3
76	Topaz FZE	-	-	2	1	2
77	Triway Technologies	4	1	3	1	7
78	TUV Nord*	3	1	4	1	7
79	Unilever Gulf FZE	1	1	2	1	3
80	Xerox Emirates	5	1	-	-	5
81	Zomato Media Pvt Ltd	6	1	6	1	12
<b>D. Sharjah</b>						
82	Aries Marine & Engineering Services	-	-	1	1	1
83	Central Motors and Equipments BOSCH	2	1	-	-	2
84	Cluttons	3	1	3	1	6
85	Dar Al Mas Tools & Equipment	2	1	-	-	2
86	ESRI	2	1	2	1	4
87	Gulf Petrochem FZC	2	1	-	-	2
88	Multi Industries FZE	3	1	3	1	6
<b>E. Umm Al Quwain</b>						
89.	ARC Engineering LLC	2	1	-	-	2

**Summary:**

Total No. of PS II stations in Semester II – 62

Total No. of PS II stations in Semester I – 57

Total No. of students in Semester II – 203

Total No. of students in Semester I – 192

Common Stations in Both Semesters – 30

\* Also PS I stations

Annexure B4-17  
(2 pages)**PRACTICE SCHOOL STATISTICS****PRACTICE SCHOOL- I**

Session	No. of students who attended PS- I	No. of faculty who supervised PS- I	No. of PS- I Stations
Summer 2002	53	04	07
Summer 2003	102	10	24
Summer 2004	94	14	26
Summer 2005	155	21	49
Summer 2006	260	28	81
Summer 2007	256	32	91
Summer 2008	357	40	117
Summer 2009	357	40	126
Summer 2010	457	49	139
Summer 2011	343	32	89
Summer 2012	294	28	76
Summer 2013	325	23	89
Summer 2014	369	26	99
Summer 2015	324	29	86
Summer 2016	404	33	97
Summer 2017	423	27	96
Summer 2018	310	22	80

**PRACTICE SCHOOL II**

Year	Semester	Period (Duration)	No. of Stations	No. of Students	No. of Faculty
2003-04	I	July 2003 to January 2004 (09.07.2003 to 18.01.2004)	17	27	16
	II	February 2004 to July 2004 (09.02.2004 to 22.07.2004)	16	26	13
2004-05	I	August 2004 to January 2005 (02.08.2004 to 10.01.2005)	27	43	17
	II	February 2005 to July 2005 (01.02.2005 to 14.07.2005)	28	39	26
2005-06	I	July 2005 to January 2006 (24.07.2005 to 05.01.2006)	30	47	30
	II	February 2006 to July 2006 (02.02.2006 to 16.07.2006)	31	43	27
2006-07	I	July 2006 to January 2007 (31.07.2006 to 12.01.2007)	40	76	40
	II	February 2007 to July 2007 (01.02.2007 to 15.07.2007)	45	75	38
2007-08	I	August 2007 to January 2008 (1.08.2007 to 15.01.2008)	59	116	50
	II	February 2008 to July 2008 (3.02.2008 to 17.07.2008)	57	115	50

<b>PRACTICE SCHOOL II</b>					
<b>Year</b>	<b>Semester</b>	<b>Period (Duration)</b>	<b>No. of Stations</b>	<b>No. of Students</b>	<b>No. of Faculty</b>
2008-09	I	August 2008 to January 2009 (3.08.2008 to 15.01.2009)	67	140	52
	II	February 2009 to July 2009 (01.02.2009 to 15.07.2009)	61	133	51
2009-10	I	August 2009 – January 2010 (02.08.2009 to 14.01.2010)	73	155	60
	II	January 2010 to July 2010 (31.01.2010 to 14.07.2010)	59	163	52
2010-11	I	August 2010 to January 2011 (1.08.2010 to 13.01.2011)	71	170	65
	II	February 2011 – July 2011 (30.01.2011 to 14.07.2011)	66	199	59
2011-12	I	August 2011 – January 2012 (1.08.2011 to 12.01.2012)	71	204	62
	II	February 2012 – July 2012 (1.02.2012 to 12.07.2012)	76	242	60
2012-13	I	August 2012 – January 2013 ( 1.08.2012 to 10.01.2013)	40	144	38
	II	February 2013 – July 2013 ( 3.02.2013 to 15.07.2013)	42	152	40
2013-14	I	August 2013 – January 2014 (4.08.2013 to 9.01.2014)	41	134	39
	II	February 2014 – July 2014 (2.02.2014 to 3.07.2014)	42	141	41
2014-15	I	August 2014 – January 2015 (5.08.2014 to 8.01.2015)	47	152	43
	II	February 2015 – July 2015 (1.02.2015 to 2.07.2015)	44	148	43
2015-16	I	August 2015 – January 2016 (6.08.2015 to 13.01.2016)	52	160 FD 08 HD	35
	II	Feb 2016- July 2016 (1.02.2016 to 10.07.2016)	52	182	34
2016-17	I	August 2016 – January 2017 (01.08.2016 to 04.01.2017)	37	140	28
	II	January 2017-July 2017 (22.01.2017-03.07.2017)	51	176 FD 04 HD	35
2017-18	I	August 2017-January 2018 (01.08.2017-04.01.2018)	50	180	29
2017-18	II	January 2018-July 2018 (20.01.2018-02.07.2018)	61	199FD 04HD	32
2018-19	I	August 2018-January 2019 (01.08.2018-3.01.2019)	57	192	27

Annexure B4-18  
(1 page)

**FACILITIES AVAILABLE AT PSI STATIONS DURING THE YEAR 2017-2018**

S. No.	STATION	Out of Pocket allowance in AED & other facilities
<b>I. Stations in United Arab Emirates (UAE)</b>		
<b>Ia. Stations at Dubai</b>		
1	Atlab (Centena Group)	500
2	CKR IT Consulting	500
3	EMPHOR FZCO	1000
4	Energy Automation	1325
5	Fedex Express	1850
6	Granteq General Trading LLC	1000
7	Globelink Weststar, Dubai	1000
8	Kyoto Technologies, Dubai	500
9	L&T Electrical & Automation	1500
10	Levtech Consulting, Dubai	800
11	Meta Technology, Dubai	1000
12	Reliance Facilities Management	1000
13	Steinweg Sharaf FZCO	1600
14	Tecpro Solutions	1000
15	Velocity Ventures	1000
16	Voltas Limited	1000
<b>Ib. Stations at Sharjah</b>		
1.	L&T Power Transmission and Distribution	1000
<b>II. Stations in India</b>		
<b>Ila. Stations at Bangalore</b>		
1.	Intel	20000 INR
<b>Iib. Stations at New Delhi</b>		
1.	Avery Dennison	20000INR

Annexure B4-19

(7 pages)

**LIST OF PROJECT ASSIGNMENTS FOR PS II - SECOND SEMESTER 2017-18**

<b>1</b>	<b>AI Green Circle Environment Consultants, Sharjah</b>	
	1	Environment Protection Plan
	2	Workplace Environment Monitoring
	3	Website Development Life Cycle
<b>2</b>	<b>ARC Engineering LLC, Umm Al Quwain</b>	
	4	Pipe Fabrication and Quality Procedures
	5	Material Handling and Storage
<b>3</b>	<b>ASTRID OASIS ,Dubai</b>	
	6	Glass fibre Reinforced Concrete and Polyester
<b>4</b>	<b>ATECO, Abu Dhabi</b>	
	7	CCTV Installation, Maintenance, Security Systems, Wireless Technology and Related Site Surveys
	8	Integrated Security Systems and IT solutions in ATECO
<b>5</b>	<b>Automation and power solutions, Dubai</b>	
	9	Working Principle of Double Conversion UPS
	10	Operation and Classification of UPS Systems
	11	Design Approaches And Usage of UPS
<b>6</b>	<b>Azbil Corporation, Dubai</b>	
	12	Energy Efficient Building Technologies
	13	HVAC Integrated in BMS
	14	Human Centered Automation in BMS
	15	Air Handling in BMS
<b>7</b>	<b>Caspian Chemicals FZCO, Dubai</b>	
	16	Investigation of Styrene Isoprene Block Copolymer as a Viscosity Index Improver in SN 150 Base Oil.
	17	Characterization and Performance of Pour Point Depressants in Lubricants
<b>8</b>	<b>Central Motors and Equipment, BOSCH, Sharjah</b>	
	18	Vehicle Spare Part Data Analysis Using Tech Doc Systems
	19	Power Tools & System Analysis
<b>9</b>	<b>Cerebra Middle East FZCO, Dubai</b>	
	20	Certifications Undertaken and Project Executed
<b>10</b>	<b>Cluttons LLC, Sharjah</b>	
	21	A Study on Property Valuation and its Processes
	22	Development of Website for Facility Management Dept. at Cluttons
	23	WEB Application Development for Real Estate Management
<b>11</b>	<b>DAIKIN ,Middle East, Dubai</b>	
	24	Automatization Of Communication Between DAME Applied-Airside Departments
	25	Energy Analysis of a 4-Pipe Chiller for a Hospital Project in Lebanon
	26	Consulting Sales Practice For Quran Park

	27	Migration of Master Data to SAP
	28	Implementation of HR Best Practices at DAME
<b>12</b>	<b>Dar Al Mas Tools &amp; Equipment, Sharjah</b>	
	29	Monetization of Technical Knowledge
	30	Study of Industrial Technology
<b>13</b>	<b>Deloitte &amp; Touche (M.E), Dubai</b>	
	31	Cyber Security and Mitigation of Insider Threat
	32	Data Analytics and Business Intelligence
	33	Data Science and Analytics for Decision-Making in Business
<b>14</b>	<b>Delphi consulting, Dubai</b>	
	34	Application of Skype for Business in Hotel Management Industry
	35	Application of Microsoft Office 365 in Real Estate Industry
	36	Cloud Computing with Microsoft Azure
<b>15</b>	<b>DLINK,JAFZA, Dubai</b>	
	37	Wireless Local Area Network
	38	Information Security and Cryptography
<b>16</b>	<b>Dubizzle,Dubai</b>	
	39	Microstrategy and SQL
<b>17</b>	<b>Eagle Industries DWC-LLC, Dubai</b>	
	40	Automobile Engine Configurations and Their Benefits
	41	Continuously Variable Transmission
	42	Active Suspension Systems In Off-Road Vehicles
<b>18</b>	<b>Environment International Consultants, Dubai</b>	
	43	An Introduction to Preparation of an EIA Report and Monitoring of Baseline Environmental Factors
<b>19</b>	<b>Elfit Arabia, Ajman</b>	
	44	Automatic Trouble Shooting and Maintenance in a Cable Pulling Winch Machine
	45	Analysis and Significance of Internate of Things in the Industrial Environment
	46	Optimization of 10 Ton Cable Pulling Winch Machine
<b>20</b>	<b>Emerson Final Control, Dubai</b>	
	47	A Detailed Introspection on Procurement and Purchasing for Valve Automation
	48	The Work Processes of Change Order Department in Fisher Controls
	49	QC/QA for Control Valves at Emerson
	50	Seat Leak and Hydrostatic Test on Control Valves
	51	Web Application Development Using Angular 5, Python Flask and Microsoft IIS Server
	52	Sharepoint Forms and Workflows
	53	Quality Management System and Excel Forms
<b>21</b>	<b>Emerson Rosemount ,Dubai</b>	
	54	Responsibilities of a Planner in Supply Chain at Emerson Rosemount
	55	Packaging Optimization of Pressure Transmitters & Semi-Automation of Chemical Inventoryat Emerson Rosemount
	56	Logistics ,Documentation & Inspection Procedure at Emerson Rosemount

	57	Optimization of Procurement Process at Emerson Rosemount
	58	Internal Sales and Packaging Optimization at Emerson Rosemount
	59	Optimization in SCM & Logistics at Emerson Rosemount
	60	Production Planning Activities and Safety Stock Determination
	61	Project Management Office at Emerson Rosemount
	62	Procurement for Analytical at Emerson Rosemount
	63	Project Management and Its Phases in Emerson Rosemount
	64	Quality Dashboard Optimization and Quality Assurance Activities at Emerson Rosemount
	65	Optimizing Transmitter Packaging and Red Light Analysis in Manufacturing at Emerson Rosemount
<b>22</b>	<b>Energy Automation DMCC, Dubai</b>	
	66	Project Management of Building Management Systems
	67	Procedure of Installing and Commissioning of Outstation Panel for High Raised Buildings
<b>23</b>	<b>ESRI, SHJ</b>	
	68	Python API Development and Debugging for ARCGIS Software
	69	Implementation of Imagery Workflows for GIS
<b>24</b>	<b>Fractal Systems, Dubai</b>	
	70	Mechatronic Structures
	71	Research and Development of Interactive Systems
	72	Design and Analysis of Mechanical Structures
	73	Design and Testing of Kinetic Structures
	74	Analysis and Implementation of Mechanical Structures
	75	Design of Aerosphere
	76	Design, Manufacturing and Control of Helium Octocopter
	77	Mechatronics Rubik's Cube
	78	Mechatronic Technologies
	79	Design and Control of a Helium fuelled Octocopter
	80	Aerosphere-Helium Powered drone
<b>25</b>	<b>Gulf Petrochem FZC, Sharjah</b>	
	81	Asset Management with Gulf Petrochem
	82	Truck Turn-Around Time and Gasket Cost Analysis
<b>26</b>	<b>HIMA Middle East FZE, Dubai</b>	
	83	Industrial Safety System (PLC): Design and Programming
	84	Marketing Research and Applications of PLCs at Hima Middle East
<b>27</b>	<b>Huawei, Abu Dhabi</b>	
	85	Huawei Big Data Platform for CEM: Carrier Operations
	86	Huawei Big Data Platform for CEM: Enterprise Operations
<b>28</b>	<b>Hydro Middle East Inc., Dubai</b>	
	87	Pumps Aftermarket and Recertification
	88	Preparing Rout Cards for Manufacturing Procedures
	89	QA/QC Practices and Its Applications

<b>29</b>	<b>International Center for Biosaline Agriculture (ICBA), Dubai</b>	
	90	Evaluation of Salicornia bigelovii Germplasm Cultivated in a Desert Environment for Various Uses
	91	Effect of salinity on barley in field conditions
	92	The Impact of the Rhizosphere Microbiota on Root System Development and Tolerance to Environmental Constraints in Cereal in ICBA
	93	Integrated Farming Systems for Desert Environments
<b>30</b>	<b>Johnson Controls, Dubai</b>	
	94	Infrastructure Delivery and Deskside Support at Johnson Controls
	95	Application Architecture and Development Patterns for JCI
<b>31</b>	<b>Kantar World Trade Panel, Dubai</b>	
	96	Market Research and its Applications in Today's Dynamic Society
<b>32</b>	<b>KHK SCAFFOLDING &amp; FORMWORK LLC, Ajman</b>	
	97	Reduction of Gas Consumption in an Ageing Oven
	98	Optimization in Stainless Steel Plant
	99	Designing Stack System for Pipes
	100	Occupancy of Dispatch Area
	101	Designing FG Warehouse
<b>33</b>	<b>Kyoto Technologies, Dubai</b>	
	102	Human Resources Management System
	103	Deployment and Support for Endpoint and Cloud Security
	104	Exchange On-Premise vs Exchange Online
	105	Implementation of SMAC in Various Industry Sectors
	106	Application, Implementation and Security in Hybrid Cloud
	107	Virtualization - Desktop as a Service
	108	Disaster Recovery as a Service using Azure
<b>34</b>	<b>L&amp;T Electrical &amp; Automation FZE, Dubai</b>	
	109	Configuration and Integration of Telecom and Security Systems
	110	System Integration of Riyadh Metro Building Management System using Rockwell Automation as the main Backbone
	111	Application of Electrical Automation for Metro Building Management Systems
	112	Controllogix Platform
	113	Tasks Undertaken in Automation Department
	114	Integrated Network Infrastructure for Telecom and Security Systems
	115	Riyadh Metro - BMS
	116	Integration of Telecommunication Systems
<b>35</b>	<b>Lucy Switchgear FZE, Dubai</b>	
	117	Supply Chain Management
	118	Projects in CNC Programming and Production Department
<b>36</b>	<b>Manlift Middle-East LLC, Dubai</b>	
	119	Commercial Team
	120	Digitalization of Delivery and Collection Documents
	121	Fleet Maintenance and Service support of Aerial Work Platforms



	122	EDP System and KEP Performance Indicators
<b>37</b>	<b>Masafi Co. LLC, Dubai</b>	
	123	Supply Chain Management in Masafi Co. LLC.
	124	Procurement Process and Its Functions
	125	Vending Equipment and Business Process
	126	Vending Machine Management Operations
<b>38</b>	<b>McWane Gulf, Abu Dhabi</b>	
	127	A Study on valves used in a Waste Water Treatment Industry
	128	Analysis of Pipe Joints using ANSYS
	129	A Study on valves used in a Desalination Industry
<b>39</b>	<b>Mideast Data Systems (MDS TS), Abu Dhabi</b>	
	130	Recent Trends In Cloud Computing Technologies
	131	Mid-East Data Systems Solutions for Desktop Virtualization
<b>40</b>	<b>Medley Capital, Dubai</b>	
	132	Business Intelligence for Sales and Marketing Integration
	133	Business Work Flow, Data Integration and Website Management
<b>41</b>	<b>Monaco Engineering Solutions, Dubai</b>	
	134	MES HSE Management
	135	Oil and Gas Safety Studies
<b>42</b>	<b>Middle East Investment and Management Consultancy, Dubai</b>	
	136	Solid Waste Management
	137	The Study And Development Of An Analytical Model For Air Sensor Data For Odor Control Systems
	138	Solar Energy: The future Energy Source of Mankind
<b>43</b>	<b>Merck Shape &amp; Dohme (MSD) DHC</b>	
	139	Vendor Management, Analysis and Accounting
	140	Sales Data Processing, Analysis and Visualization using MySQL and VBA
	141	Consolidating Data using Database Management and Analytics
	142	Macro Aided Debit Note Analysis and Processing
	143	Data Analysis with Business Intelligence Applications
<b>44</b>	<b>Merck Shape &amp; Dohme (MSD), DIC</b>	
	144	A Digital Marketing Campaign for Veterinarians
	145	Customer Relationship Management and Decision Making
<b>45</b>	<b>Multi Industries FZE, Sharjah</b>	
	146	A Holistic Approach to Marketing in the Plastic Industry
	147	Forming Processes and Their Industrial Applications
	148	A Brief Study on Plastic Injection Molding Process
<b>46</b>	<b>Nuplas Industries JAFZA, Dubai</b>	
	149	Surface Inspection System
	150	Introduction to Machine Lines, Maintenance Software and KPI

<b>47</b>	<b>Ocean Corner Water Treatment Equipment &amp; Chemicals LLC, Dubai</b>	
	151	Wastewater Treatment in the Paint Industry
	152	Application of Bioreactors in Sewage Treatment Plant
<b>48</b>	<b>Oriental Dynamics Solutions, Dubai</b>	
	153	An Overview of Building Management System at ODS Global
	154	Curating a BMS and CBS Operation and Maintenance Manual for a Project Site
<b>49</b>	<b>Procal Measuring &amp; Control Equipment, Dubai</b>	
	155	Advertising Effectiveness and Objectives
	156	Instruments used in Petrochemical industries and their calibration.
	157	Calibration of Safety Valves, Electrical and Temperature Instruments
	158	Implementation of ISO 9001:2015 in Procal
<b>50</b>	<b>Protiviti Member Firm Middle East Consultancy, Dubai</b>	
	159	Blockchain Technology and Its Applications Across Various Sectors
	160	Blockchain Technology and Its Applications Across Various Sectors
	161	Blockchain Technology and Its Various Application Across Sectors
<b>51</b>	<b>PWC Digital Services, Dubai</b>	
	162	Customer Relationship Management Systems
	163	Microsoft Dynamics 365 and Associated Services for Customer
	164	Microsoft Dynamics 365 and Associated Services for Customer Relationship Management (CRM)
	165	PForce Testing in Salesforce
	166	Applications of Microsoft Dynamics CRM and Salesforce CRM for Customer Relationship Management
	167	Data Warehousing and Business Intelligence Endpoints
	168	WEB and Application Development Using Salesforce Platform
	169	Salesforce Implementation
<b>52</b>	<b>RNS Technology, Dubai</b>	
	170	Network Security –System Integrations with Security Products
	171	Network and Endpoint Security
<b>53</b>	<b>Scan Technology ,Dubai</b>	
	172	Social Media Analytics for Effective Digital Marketing
	173	Data Analysis of Airline Industry using Tableau
	174	Evaluating Credit Risk and Financial Exposure
<b>54</b>		
	175	New Installation Sales and Process Implementation through CRM in Elevator Industry
	176	Service Contract Management in Schindler Pars International Ltd
	177	Sales and Marketing Process in Schindler UAE
	178	Service Operations Management for Elevator Industry
<b>55</b>	<b>Siemens LLC, Dubai</b>	
	179	Design of BMS Network Using Desigo Xworks Plus
	180	Preparation of Engineering Submittals for Project Execution at Siemens Building Technologies

<b>56</b>	<b>Thyssenkrupp Elevators, Abu Dhabi</b>	
	181	The Cutting Edge: In Pursuit of the Ultimate Green City
<b>57</b>	<b>Thyssenkrupp Elevators, Dubai</b>	
	182	Weight Reduction in Elevators
	183	Traffic Analysis and Elevator Group Optimization in Buildings
<b>58</b>	<b>Triway Technologies, Dubai</b>	
	184	Principles of Finance and Accounting
	185	Designing Technical Solutions (ZOHO Applications)
	186	Digital Marketing
	187	Web Development and Application Program Interface Integration
<b>59</b>	<b>TUV Nord, Abu Dhabi</b>	
	188	Introduction to Certification and Auditing
<b>60</b>	<b>TUV Nord, Dubai</b>	
	189	Review of Microbiological Test Methods
	190	Audit Coordination under ISO Implementation
	191	Evaluation of Food and Health Safety in Hygienic Conditions
<b>61</b>	<b>Unilever Gulf FZE, Dubai</b>	
	192	Noise Reduction in Unilever Lipton Jabal Ali Factory
<b>62</b>	<b>Xerox Emirates LLC, Dubai</b>	
	193	Digital Marketing as a Powerful tool for Demand Generation
	194	Employee Engagement for Higher Productivity
	195	Brand Awareness and Perception Research
	196	Post Sales Department in Xerox Emirates LLC
	197	Market Research Analysis
<b>63</b>	<b>Zomato Media Private Ltd., Dubai</b>	
	198	Factors Affecting Online Shopping Behaviour Among Undergraduates in BPDC
	199	Impact of Online Retail in India and UAE
	200	Optimization of Operations at Zomato
	201	Marketing Strategies - Performance Relationship: An In-depth Study at Zomato
	202	Analysis of Sales and Marketing with Respect to Growth of Companies for Online Food Ordering Platforms
	203	Mislabling and Ethicality in Processed Meat

Annexure B4-20  
(5 Pages)

## COMPUTING FACILITIES ACROSS THE CAMPUS

S. No.	Location	Hardware	QTY	Software
		Equipment		
1	Server Room (Data Center)	HP ProLiant DL380 Gen9 Intel Xeon E5-2620v3 6-Core (2.40GHz 15MB) ,16GB (1 x 16GB) PC4-17000P-R 2133MHz RDIMM ,3 x 300GB (10k rpm) Hot Plug 2.5in Small Form Factor Smart Carrier ,SAS Smart Array P440ar/2G HP Embedded 1Gb Ethernet 4-port 331i Adapter ,HP 2U SFF - Easy Install Rail Kit w/CMA, DVD-RW 2 x 500W ,3/3/3	2	ESXI 5.5 update 2,Windows Server 2003/2008/2012 R2-Enterprise x64 edition, CentOS, REDHAT Linux Enterprise, Domain Controller, Web Server
		HP DL 380 G7 Single Processor / Base Server, 32 GB Memory / 300 GB x 2 Hard drives & 600 GB x 6 Hard Drives	1	ESXI 5.5 update 2,Hypervisor,VMware,Replication server
		HP DL 380 G7 Dual Processor / Base Server, 32 GB Memory / 300 GB x 2 Hard drives	3	ESXI 5.5 update 2,Hypervisor, Windows Server 2003/2012 R2-Enterprise x64 edition/Linux, Vcenter
		HP MSA 2040 FC 6x900 SAS SFF Bndl/TVlite, HP MSA 900GB 6G SAS 10K 2.5in DP ENT HDD,	1	HP Storage server
		12-Bay TurboNAS, Xeon E3-1200 v3 family, 4GB ECC RAM(max. 32GB RAM), 4-LAN, 10G-ready, iSCSI, RAID 0,1, 5, 6, 10, 5+spare, 6+spare, 10+spare, global hot spare, max 8-LAN, PCIe expansion slot x2, redundant power supply, Seagate NAS 4TBx12	1	NAS Backup Server
		DELL PE M1000e Blade Enclosure Chasis (and 9x12V High Efficiency Fans) + 3 x 300W Power supply and Fans + 3 x C19 / C20 power Media Tray DVD + SD card for CMC + Intel KVM Switch, Select Brocade M5424 FC8 S (FI) 12 Ports with 2x 8Gb SFP	1	
		PowerEdge M630 Blade Server for M 1000 with 2 x Intel Xeon E5-2640 v3 2.6GHz,20M Cache,8.00GT/s QPI,Turbo,HT,8C/16T (90W) Max Mem 1866MHz (135W) Max Mem 2133MHz, 128GB RAM \ (8 x 16GB RDIMM), 2133 MT/s, Dual Rank, x4 Data Width, 2 x 600GB 15K RPM SAS 12Gbps 2.5in Hot-plug Hard Drive. QLogic 57840S 10Gb Quad Port KR Blade Network Daughter Card, Emulex LPE1205-M 8Gbps Fibre Channel I/O Card for M-Series Blades	2	ESXI 5.5 update 2,Windows Server 2003/2008/2012 R2-Enterprise x64 edition,CentOS, Ubuntu,Debian
		PowerEdge M630 Blade Server for M1000, 2 x Intel Xeon E5-2698 v3 2.3GHz,40M Cache,9.60GT/s QPI,Turbo,HT,16C/32T (135W) Max Mem 2133MHz, 2 x 600GB 15K RPM SAS 12Gbps 2.5in Hot-plug Hard Drive, 64GB RAM (4 x 16GB RDIMM), 2133 MT/s, Dual Rank, x4 Data Width, QLogic 57840S 10Gb Quad Port KR Blade Network Daughter Card, Emulex LPE1205-M 8Gbps Fibre Channel I/O Card for M-Series Blades	1	ESXI 5.5 update 2,Windows Server 2003/2008/2012 R2-Enterprise x64 edition, CentOS
Dell Power Edge R740XD GPU Server,2X,Intel Xeon Gold 2.1G,16C,480GB SSD,2.4TB SAS,32GB RAM,2XNVIDIA	1	Ubuntu 16.0		

S. No.	Location	Hardware	QTY	Software
		Equipment		
		Tesla V100 GPU		
		CISCO IDENTITY SERVICES ENGINE, SNS-3415-K9 (ISE Server)	1	Cisco IOS
		Cisco Prime Server, PRIME-NCS-APL-K9	1	Cisco IOS
		Cisco ASA Firewall, ASA5585-S20-K9	2	Cisco IOS
		Cisco Core Switch Cisco Nexus 9300 Series-N9K-C9372PX, 48 x 1/10-Gbps SFP+ and 6 x 40-Gbps fixed QSFP+ ports,	2	Cisco IOS
		Cisco Edge switches- WS-C2960X-48FPD-L	3	Cisco IOS
		Sonicwall NSA 5600 Series	2	Wan optimization
		Cisco AIR-CT5760, AIR-CT5760 (H/A)	2	Cisco IOS
		Cisco Unified Communication System,UCS-BE-6000	1	Vcenter
		Cisco Voice Gateway ,CISCO2901/K9	1	Cisco IOS
2	Computer Programming Lab (332 & 333)	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM, 160GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	1	Windows 7
		Dell OptiPlex Intel Core I7-4790 (Quad Core, 3.60 GHz 8 GB RAM DDR1TB GB SATA HDD (Total = 127) Intel Core I5 4590 (Quad Core 3.30 Ghz) 4 GB RAM DDR500TB GB SATA HDD (Total = 29) 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	80+76=156	Windows 8.1 and Windows 10
3	Microprocessor Lab (108)	Dell OptiPlex 9020 MT Intel Core I7-4790 (Quad Core, 3.60 GHz 4 GB RAM DDR1TB GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	30	Windows 8.1, Windows 10, MS Office 2007 and Red Hat Linux 5.0 , Ubuntu advanced platform
		IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM, 160GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	2	Windows 7, MS Office 2013
4	Physics Lab (309)	HP 280 G2, Intel Core I3,6100, 3.70 GHz, 8GB RAM, 500 GB HDD	5	Windows 7 64 bit, MS Office 2013
		Dell OptiPlex 9020 MT Intel Core I7-4790 (Quad Core, 3.60 GHz 4 GB RAM DDR1TB GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	1	Windows 10, MS Office 2016
		Dell OptiPlex 7020 MT Intel Core I7-7700 (Quad Core, 3.60 GHz 8 GB RAM DDR1TB GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	4	Windows 10, MS Office 2016
		Acer M2 series intel Core 2 Duo E 7400, 2.80 GHz, 2GH RAM, 320 GB HDD	2	Windows 7 32 bit and MS office 2007
5	Instrumentation Lab (329)	Acer 5600,3.0Ghz,1GB,80 GB	5	Windows 7 32 bit and MS office 2007
		IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GBRAM,160GBHardDisk	1	Windows 7 32 bit and MS office 2007
		Dell OptiPlex 9020 MT Intel Core I7-4770Quad Core 3.40 GHz 8 GB RAM DDR 1TB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	10	Windows 8.1 and Windows 10

S. No.	Location	Hardware	QTY	Software
		Equipment		
6	Digital Electronics Lab and Analog Electronics lab (304)	HP prodesk 400G3MT, Intel Core I7 6700, 3.4Ghz, 8GB RAM, 1TB HDD,	2	Windows 8.1
7	Signal Processing and Simulation Lab (303)	ACER:Intel® Pentium 4 - 3.0 GHz ACPI uniprocessor PC, 1GB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	14	Windows 7, MS Office 2003
		Dell OptiPlex 7020 MT Intel Core I7-4770 (Quad Core, 3.40 GHz 8 GB RAM DDR 1TB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	20	Windows 7 64 bit
		Compaq D510, 2.40Ghz/Intel	1	
8	Communication Lab (330)	ACER:Intel Core 2 CPU 2.0GHz, 1 GB RAM, 150GB Hard Disk, DVD Writer	2	Windows 7, MS Office 2007 and Matlab 7 SIMULINK-R2010a
		Inter Core i5 CPU 650 @ 3.20 Ghz 2 Gb RAM 500 HDD	1	
9	Power Electronics Lab (302)	Lenovo:Intel® Core to Due - 2.8 GHz uniprocessor PC, 1GB RAM, 80GB Hard Disk, 3COM Ether Link 10/100	5	Windows XP, MS Office 2007
10	Electrical Machine (313)	Dell Optiplex 9020, Intel Core I7-4790 (Quad Core, 3.60 GHz 8 GB RAM DDR1TB GB SATA	2	Windows 8.1
11	Mechatronics Lab (MS2)	Dell Optiplex 9020, Intel Core I7-4790 (Quad Core, 3.60 GHz 8 GB RAM DDR1TB GB SATA	2	Windows 10
		Lenovo think center intel Core 2 Duo, 2 GB RAM, 160 GB HDD	5	Windows 7, MS office 2007
12	Heat Transformation lab (MS4)	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	1	Windows 7, MS Office 2007
13	PMFM Lab (MG2)	ACER:Intel® Pentium 4 - 2.8GHz ACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows 7, MS Office 2007
		Compaq D510	1	
14	Chemistry Lab (306)	ACER:Intel® Pentium 4 - 2.8GHz ACPI uniprocessor PC, 512MB RAM, 40GB Hard Disk, 3COM Ether Link 10/100	1	Windows 7, MS Office 2007
15	Class Rooms	Dell Optiplex 3070 Micro form factor,15,8GB,500GB	21	Windows 10, MS Office 2013/2016
		Lenovo Think center M 700, Intel Core I5, 4GB RAM, 500GB HDD	10	Windows 7
16	Divisions(Grading, PSP, PCP, AAR,SW,I&E)	IBM -LENOVO-ThinkCentre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	8	Windows 7, MS Office 2007
		Dell Optiplex 9020,Core I5, 4590, 3.30GHz, 4GB RAM, 500GB HDD	1	Windows 8.1 MS office 2007
		Dell Optiplex 9020,Core I7, 4770, 3.30GHz, 8GB RAM, 1TB HDD	5	Windows 8.1 MS office 2007
17	Library (BPDC)	LENOVO-ThinkCentreEdge :Inter® Core I3 4170@ 3.70 GHz, 3.70Ghz, 8GB RAM,500GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	50	Windows 7, MS Office 2007
		Dell OptiPlex 9020 MT Intel Core I7-4790 (Quad Core, 3.60 GHz 4 GB RAM DDR1TB GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	3	Windows 8.1 MS Office 2013
18	Faculty (Academic)	Dell OptiPlex 9020 MT Intel Core I7-4770	36	Windows 8.1/Windows 10,

S. No.	Location	Hardware	QTY	Software
		Equipment		
		(Quad Core, 3.60 GHz 4 GB RAM DDR1TB GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	3	MS Office 2013,16
		Lenovo M73 Tower Intel Core i7 3.6Ghz, RAM 8 GB, 1TB HDD		
		HP Notebook Laptop (Faculty and Staff)	47	
19	Administration (Academic)	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz,1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	16	Windows 7, MS Office 2013
		Lenovo M73 Tower Intel Core i7 3.6Ghz, RAM 8 GB, 1TB HDD	1	Windows 10, MS Office 2016
		Dell OptiPlex 9020 MT Intel Core I7-4770 (Quad Core, 3.60 GHz 4 GB RAM DDR1TB GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	13	Windows 8.1 , MS office 2013
		HP Pavilion laptop	16	Windows 8.1, MS office 2013
		Acer Veriton M265 / Intel Core 2 Duo E7400 2.8 GHz / 2 GB RAM / DVD R/ /Mouse / Key Board	6	Windows 7, MS Office 2007
		iMac,21.5",i5,8GB,SSD 500	1	MAC IOS 10
20	Engineering Graphics Lab (MS5)	Dell OptiPlex 7020 MT Intel Core I5-4590 (Quad Core, 3.30 GHz 4 GB RAM DDR 500 GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	80	Windows 8.1 AutoCAD 2015 CATIA V5 R6 ANSYS 2015 EASY5 2015 ESPRIT DFX Digimat VASP My Lammps OOF2 Franc & Casca
21	Engineering Graphics Lab	Acer Veriton M265 / Intel Core 2 Duo E7400 2.8 GHz / 2 GB RAM / DVD R/WWindows Server 2008 / Mouse / Key Board	1	Mechanical Software Server
22	CAD LAB -1 (MS6)	IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	11	Windows 7, MS Office 2007 ADAMS 2015 Aspen Automation Studio
23	CAD LAB -2 (MS6)	Dell OptiPlex 7050 Intel Core I7-7700Quad Core 3.60 GHz 16 GB RAM DDR 1 TB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	15	Abaqus, MATLAB 2016 PLAXIS 2D
24	CAD LAB -2	Dell OptiPlex 9020 MT Intel Core I5-4590Quad Core 3.60 GHz 8 GB RAM DDR 1 TB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	8	Windows 8.1
25	Chemical Lab 1 (340)	Dell OptiPlex 9020 MT Intel Core I5-4790Quad Core	4	Windows 8.1 Aspen, Mat lab

S. No.	Location	Hardware	QTY	Software
		Equipment		
		3.60 GHz 8 GB RAM DDR 1TB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard Lenovo Think center I5,2.4Ghz, 4GB RAM, 500GB HDD	1	Windows 10
26	Biotechnology Research Lab (305)	Dell OptiPlex 9020 MT Intel Core I7- 4590Quad Core 3.30 GHz 8 GB RAM DDR 1TB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse	1	Windows 8.1,Office 2016
		IBM -LENOVO-Think Centre:Inter® Core 2 CPU 4400@ 2.00 GHz, 1.99Ghz, 1GB RAM,150GB Hard Disk, Broadcom NetLink Gigabit Ethernet Network Card, DVD Combo	1	Windows 7,Office 2013
27	Chemical Lab2 (331)	Dell OptiPlex 9020 MT Intel Core I5- 4590Quad Core 3.30 GHz 4 GB RAM DDR 500GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	2	Windows 8.1
28	CCTV Control room	HP elite Desk+ HP Compaq8100+Dell Optiplex 9020(2+3+2)	7	Windows 7 and Windows 8.1
29	Creative Lab (MS7)	Dell Optiplex 9020, Intel Core I7, 3.60 GHz, 8GB RAM, 1TB HDD	2	Windows 8.1
		HP Think station,Intel Xeon E5 1620, 3.50GHz,8GB RAM, 1TB HDD.	2	Windows 8.1
30	Civil Lab	Dell OptiPlex 9020 MT Intel Core I5- 4590Quad Core 3.30 GHz 8 GB RAM DDR 500GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical Mouse Dell KB212-B Quiet Key USB Keyboard	1	Windows 8.1 MS Office 2016
31	IT Stock	Lenovo M73 Tower Intel Core i7 3.6Ghz, RAM 8 GB, 1TB HDD	3	Windows 10
		HP Notebook, BS012NE,i7,6GB,1TB	4	Windows 10
		Dell OptiPlex 9020 MT Intel Core I5- 4590Quad Core 3.30 GHz 8 GB RAM DDR 500GB SATA HDD 16X DVD/RW Drive Dell MS 111 USB Optical MouseDell KB212-B Quiet Key USB Keyboard	2	Window 10
		HP Pavilion i7 4500, 2.4GHz,8GB RAM, 1TB HDD	1	Windos 10 /MS office 2013



Annexure B4-21  
(2 Pages)**LIST OF MAJOR EQUIPMENTS PROCURED DURING THE YEAR 2018**

<b>S.No</b>	<b>Name of Equipment</b>	<b>Used for Courses/Thesis/Dissertation Computational/Administrative Work</b>
1.	Hot Air Oven, Moisture Analyzer, Refrigerant Air Dryer and Water Circulation Chiller	Chemical Engineering Laboratory
2.	Humidifier Chamber & Refrigerant air Dryer	Chemical Engineering Laboratory
3.	Grain Mill, Gas Analyzer, Thermocouple with digital Monitor and Weighing Balance	Chemical Engineering Laboratory
4.	Student Spectrometer	Physics Laboratory
5.	Spectral Tube Power Supply And Mount	Physics Laboratory
6.	Spectral Tube (Hydrogen)	Physics Laboratory
7.	Green Diode Laser	Physics Laboratory
8.	Colorimeter	Physics Laboratory
9.	Water Bath	Physics Laboratory
10.	Vacuum pump	Physics Laboratory
11.	Biosafety Cabinet	Microbiological project
12.	Bath sonicator	Experiments in Biotechnology
13.	Ultra-Low temperature freezer	Experiments in Biotechnology
14.	Probe sonicator	Genetic engineering
15.	Ph Electrodes	Experiments in Biotechnology
16.	Rotors for Genvic	Industrial Microbiology & Bioprocess Laboratory
17.	Ultra Sonicator	IMA Laboratory & Downstream Processing
18.	Rotors & Accessories for Centrifuge	Experiments in Biotechnology
19.	SIMCA Software	Metabolomics Data Analysis for Research
20.	Upgradation of Gas Chromatograph	Industrial Microbiology & Bioprocess Engineering Laboratory
21.	Structural analysis software (Bentley's STAAD Pro)	CAD Laboratory
22.	Geotechnical modelling software (Plaxis 2D suite)	CAD Laboratory
23.	Traffic analysis and forecast software (PTV Visum software)	CAD Laboratory
24.	Basic Testing Equipments	Concrete Laboratory
25.	Basic Testing Equipments	Soil Mechanical Laboratory
26.	Basic Testing Equipments	Transportation Engineering Laboratory
27.	Accoustic Emission Tester	Online Monitoring of Metal Forming Process – Mechanical Laboratory
28.	CNC Lathe	Work Shop – Mechanical Laboratory

<b>S.No</b>	<b>Name of Equipment</b>	<b>Used for Courses/Thesis/Dissertation Computational/Administrative Work</b>
29.	Desktops	EG/CAD Laboratory
30.	Smoke Tester & Emission Tester	Mechanical Engineering Laboratory
31.	Scr Trainer Kit	Power Electronics Laboratory
32.	Single Phase Fully Controlled Thyristorized Rectifier Module	Power Electronics Laboratory
33.	Mentor Graphics Software	Analog Electronics Laboratory
34.	Digital Storage Oscilloscope	Communication Systems Laboratory
35.	DSB/SSB AB Transmitter & Receiver	Communication Systems Laboratory
36.	Frequency Modulator and Demodulator	Communication Systems Laboratory
37.	Delta, Adaptive Delta and Delta Sigma Modulation/ Demodulation	Communication Systems Laboratory
38.	Matlab Licenses & Toolboxes	EG Lab
39.	High End GPU for Deep Learning Applications, 480GB SAS, 2.4TB Hard Drive , NVIDIA Tesla V100 32GB GPU	Computer Science Laboratory
40.	Raspberry Pi 3-model B+single board computer + Various Sensor kits	Computer Science Laboratory
41.	Wifi Access Points Coverage Expansion	Hostels Blocks
42.	Projectors With Mount Kit	Classroom/ Eg Lab/ Meeting Room
43.	Vmware VSPHERE LICENSE	Data Center
44.	Veeam Backup & Replication	Data Center
45.	Microsoft Office License	Faculty / Staff
46.	E – Campus Solution	Faculty / Staff / Students
47.	Blade Server and Storage Server Redundant Setup	Server Room
48.	Wacom DTK E document Device	WILP Class room

BITS Pilani

# annual report 2018

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## Part B5: Work Integrated Learning Programmes



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## WORK INTEGRATED LEARNING PROGRAMMES

### B5.1 SENIOR OFFICERS OF THE WORK INTEGRATED LEARNING PROGRAMMES

1. Prof. G Sundar, Director (Off-Campus Programmes & Industry Engagement)
2. Prof. S. Balasubramaniam, Dean
3. Prof. P Srinivasan, Associate Dean
4. Prof. H D Mathur, Associate Dean
5. Prof. G Venkiteswaran, Associate Dean
6. Prof. Raghunath Ratabole, Associate Dean
7. Prof. Punna Rao Ravi, Associate Dean
8. Prof. P B Venkatraman, Associate Dean
9. Mr. Rajiv Tandon, Chief Operations Officer
10. Mr. Krishna Swami Mohan, Deputy General Manager, Operations

### B5.2 HISTORY

Since 1979, the Institute has been participating in the human resources development activities of the industries by evolving several degree programmes that integrate the working environment of the employees with the learning environment required by the Institute. These programmes are offered in several domains like Information Technology, Engineering Technology and Management.

The Institute conducts Work Integrated Learning Programmes (WILP) as a means of continuing education for employed professionals to meet the Learning & Development needs of a diverse spectrum of industries. These programmes are conducted through a collaborative partnership between BITS Pilani and the organization / industry, to build technical competencies and enable advancement of workplace skills. In a world of rapidly evolving technologies, these programmes represent a successful model to meet the consequent need for continuous education and up-skilling of the workforce.

Over the past three decades, these programmes have grown manifold, meeting the requirements of over 4000 organizations. At present, over 22,000 employed professionals are pursuing various degree programmes through WILP.

### B5.3 SALIENT FEATURES

In line with the educational philosophy of the Institute of integrating theory with practice, the student's own work environment provides an ideal ground for a meaningful combination of the two through assignments, case studies, work experience, and projects. The interplay of work or practice and education is ensured since students are admitted only to a programme that is in line with their work profiles, and with the endorsement and active support of the employer.

The programmes are industry focused, with highly contemporary and relevant curriculum, and the individual courses are taught at the same level of rigor as in programmes on the campus. Instruction is delivered at the workplace, using a judicious combination of asynchronous electronic means, and synchronous, faculty-led classes conducted either physically or through the use of technology. Extensive use is made of virtual laboratories, remote laboratories, simulations, case studies, assignments and projects drawn from the workplace for enhanced experiential learning.

## B5.4 PROGRAMMES OFFERED

## Currently Operative Work Integrated Learning Programmes

Programmes	Collaborating / Sponsoring Organization
<b>B.Tech. Programmes</b>	
1. Engineering Design	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
2. Engineering Technology	- Designed for the HRD needs of a diverse spectrum of Engineering Industries and John Deere, Pune
3. Information Systems	- Designed for the HRD needs of a diverse spectrum of IT Industries and Wipro Bangalore
4. Manufacturing Technology	- Kirloskar Oil Engines, Kolhapur, Bharat Forge, Pune, Tata Motors, Jamshedpur; TACO, Pune; Maruti Suzuki, Gurgaon; Mahindra Motor Vehicles; Cummins, Pune
5. Power Engineering	- Aditya Birla Group, Tata Power, JSW Energy – Mumbai
6. Process Engineering	- Aditya Birla Group, Mumbai; JSW Steel, Toranagallu; Vedanta, Jharsuguda; BPCL, Mumbai
<b>M.Sc. Programme</b>	
1. Business Analytics	- Designed for the HRD needs of a diverse spectrum of IT Industries
2. Information Systems	- Designed for the HRD needs of a diverse spectrum of IT Industries
<b>M.B.A. Programmes</b>	
1. Consultancy Management	- Designed for the HRD needs of a diverse spectrum of consulting firms
2. Finance	- Designed for the HRD needs of business organizations
3. Hospital and Health Systems Management	- Designed for the HRD needs of a diverse spectrum of Hospitals and Healthcare organizations
4. Manufacturing Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
5. Quality Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries

<b>M.Tech. Programmes</b>	
1. Automotive Engineering	- Tata Technologies, Tata Motors, Pune; Mercedes Benz
2. Computing Systems & Infrastructure	- Designed for the HRD needs of a diverse spectrum of IT Industries, and Wipro, Bangalore
3. Data Science & Engineering	- Designed for the HRD requirements of a diverse spectrum of IT Industries
4. Design Engineering	- Designed for the HRD needs of a diverse spectrum of Engineering Industries, SKF and John Deere, Pune

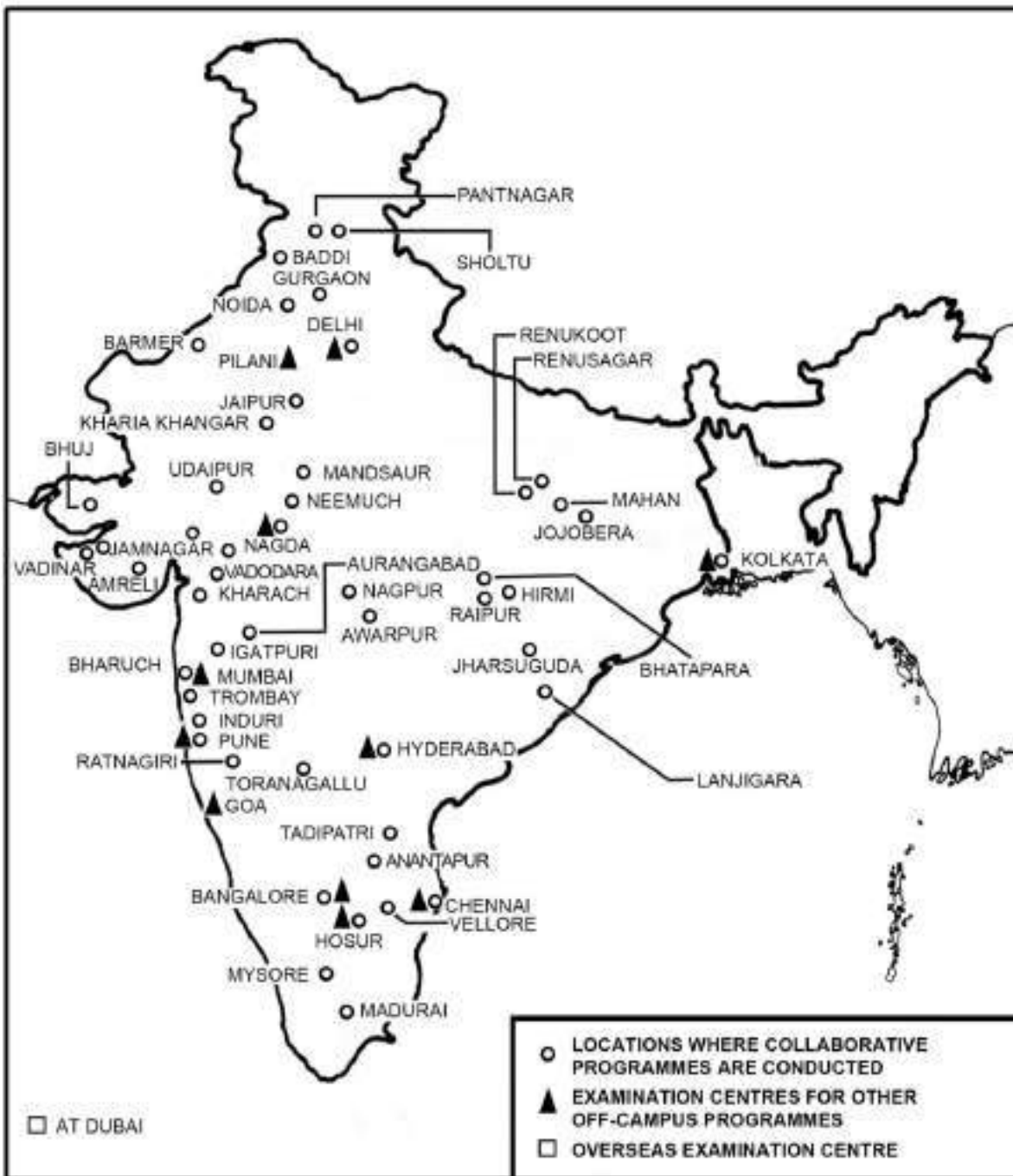


5. Embedded Systems	- Designed for the HRD needs of a diverse spectrum of IT Industries, Cisco, Bangalore; UTC Bangalore and Hyderabad.
6. Environmental Engineering	- Goa Pollution Control Board, Goa
7. Manufacturing Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
8. Microelectronics	- Designed for the HRD needs of a diverse spectrum of IT Industries; Synopsys, Bangalore; Samsung, Gurgaon
9. Pharmaceutical Operations and Management	- Designed for the HRD needs of a diverse spectrum of Pharmaceutical Industries, and Sun Pharmaceutical Industries, Vadodara; Lupin, Mumbai
10. Quality Management	- Designed for the HRD needs of a diverse spectrum of Engineering Industries
11. Software Engineering	- Wipro Technologies, Dell, SAP Labs, Sabre, EMC, Oracle, Lowe's Services, Bangalore; Avaya, Tech Mahindra, Pune; Capgemini; Qualcomm, Hyderabad
12. Software Systems	- Designed for the HRD requirements of a diverse spectrum of IT Industries; Wipro Technologies, Bangalore; TCS, Hyderabad; Cisco, Synopsys, Bangalore; Samsung, Gurgaon
13. Systems Engineering	- Wipro Infotech, Bangalore
14. Telecommunications & Software Engineering	- Designed for the HRD needs of a diverse spectrum of Telecomm Industries
15. Transportation Engineering	- PWD, Goa

Post Graduate Diploma Programmes	
1. Finance	Designed for the HRD needs of Business organizations
2. Manufacturing Management	- Designed for the HRD needs of Manufacturing organizations
Post Graduate Certificate Programmes	
1. Big Data Engineering	- Designed for the HRD needs of IT industries
2. General Management	- Designed for the HRD needs of Engineering industries
3. Internet of Things	- Designed for the HRD needs of IT industries
4. Manufacturing Practice	- Designed for the HRD needs of Manufacturing organizations
Certificate Programmes	
1. Manufacturing Practice	- Designed for the HRD needs of Manufacturing organizations
2. General Management	- Designed for the HRD needs of Engineering industries

B5.5 MAP OF BITS WORK INTEGRATED LEARNING & COLLABORATIVE PROGRAMMES 2018

### MAP OF BITS WORK INTEGRATED LEARNING & COLLABORATIVE PROGRAMMES 2018



## B5.6 ADMISSIONS

The number of students admitted in each of the semester is given below.

	PG Certificate & Diploma Programmes	Integrated First Degree Programmes	Higher Degree Programmes	Total
Second Semester 2017-2018	412(068)	425(020)	1889(524)	2726(612)
First Semester 2018-2019	467(089)	586(039)	2729(535)	3782(663)

The programme-wise details are given in *Annexure 1 (Part B5)*.

## B5.7 REGISTRATION OF STUDENTS

The registration processes for both the semesters was completed on the first day of each semester.

Semester	Number of students registered
Second Semester 2017-2018	17177
First Semester 2018-2019	17432

Details of Registration of students for the First Semester 2018-2019 are given in *Annexure 2 (Part B5)*.

## B5.8 GEOGRAPHICAL DISTRIBUTION OF STUDENTS REGISTERED IN FIRST SEMESTER 2018-2019

## (A) INDIA

State	No. of students		
	Specific	Non Specific	Total
Andhra Pradesh	539	397	936
Assam		19	19
Bihar		47	47
Chandigarh		19	19
Chattisgarh		35	35
Dadra & Nagar Haveli		2	2
Delhi	201	299	500
Goa	23	55	78
Gujarat	129	76	205
Haryana	119	257	376
Himachal Pradesh		17	17
Jammu & Kashmir		9	9
Jharkand	132	29	161
Karnataka	6570	1546	8116
Kerala	119	144	263
Madhya Pradesh		59	59
Maharashtra	1446	1133	2579
Meghalaya		1	1
Mizoram		4	4
Nagaland		2	2

State	No. of students		
	Specific	Non Specific	Total
Orissa	13	5	18
Pondicherry		19	19
Punjab		48	48
Rajasthan		202	202
Tamil Nadu	478	1119	1597
Telangana	461	809	1270
Uttar Pradesh	44	119	163
Uttarakhand		22	22
West Bengal	84	116	200
<i>Total</i>	10358	6609	16967

## (B) Foreign

Country	No. of students		
	Specific	Non Specific	Total
Australia		6	6
Canada		13	13
China		1	1
France		4	4
Saudi Arabia		65	65
Kuwait		46	46
Hongkong		5	5
Malaysia	40	3	43
Oman		39	39
Qatar		49	49
Russia		4	4
Singapore		11	11
UAE		179	179
<i>Total</i>	40	425	465
<i>Grand Total</i>	10398	7034	17432

## B5.9 SPONSORING ORGANIZATIONS

During the year, 4421 organizations have sponsored their employees for Work Integrated Learning Programmes. List of the organizations are given in **Annexure 'B5-3'**.

## B5.10 ACADEMIC CALENDAR

For the year 2018, Second Semester 2017-2018 started on 30-12-2017 and ended on 08-05-2018, while First Semester 2018-2019 started on 21-07-2018 and ended on 15-12-2018 for all programmes except the following:

## Second Semester 2017 -2018

Degree	Programme	Organization	Location	Start Date	End Date
B.S.	Manufacturing Engineering	Bharat Forge	Pune	04-02-2018	29-07-2018
B.S.	Power Engineering	Essar Power	Hazira	23-12-2017	20-05-2018
B.S.	Process Engineering	ABG	Mumbai	30-12-2017	20-05-2018
B.Tech.	Engineering Technology	John Deere	Pune	04-02-2018	19-07-2018
B.Tech.	Information Systems	Wipro Infotech	Bangalore	31-03-2018	07-09-2018
B.Tech.	Manufacturing Technology	Maruti	Gurgaon	06-05-2018	28-10-2018
B.Tech.	Manufacturing Technology	Tata Motors	Jamshedpur	31-03-2018	02-09-2018
B.Tech.	Manufacturing Technology	Bharat Forge	Pune	04-02-2018	30-07-2018
B.Tech.	Manufacturing Technology	TACO	Pune	08-04-2018	28-09-2018
B.Tech.	Manufacturing Technology	Mahindra Vehicle	Pune	25-02-2018	18-08-2018
B.Tech.	Manufacturing Technology	CUMMINS	Pune	12-02-2018	17-07-2018
B.Tech.	Manufacturing Technology	Kirloskar	Pune	15-02-2018	23-06-2018
B.Tech.	Power Engineering	JSW Energy	Mumbai	23-12-2017	20-05-2018
B.Tech.	Power Engineering	Tata Power	Mumbai	23-12-2017	13-05-2018
B.Tech.	Power Engineering	Vedanta, Grasim, Ultratech	Pilani	23-12-2017	13-05-2018
B.Tech.	Process Engineering	BPCL	Mumbai	21-07-2018	10-01-2019
B.Tech.	Process Engineering	Vedanta, Grasim, Ultratech	Pilani	23-12-2017	13-05-2018
B.Tech.	Process Engineering	JSW Steel Ltd.	Torangallu	26-11-2017	08-05-2018
M.Tech.	Computing Systems & Infrastructure	Wipro	Bangalore	17-03-2018	07-09-2018
M.Tech.	Design Engineering	Cluster	Bangalore	01-04-2018	05-10-2018
M.Tech.	Design Engineering	Cluster	Chennai	31-03-2018	19-09-2018
M.Tech.	Design Engineering	Cluster	Delhi	31-03-2018	05-10-2018
M.Tech.	Design Engineering	Cluster	Pune	13-05-2018	06-11-2018
M.Tech.	Design Engineering	SKF	Pune	20-01-2018	20-06-2018
M.Tech.	Design Engineering	John Deere	Pune	04-02-2018	19-07-2018
M.Tech.	Embedded System	Cluster	Bangalore	31-03-2018	04-08-2018
M.Tech.	Embedded System	Cluster	Delhi	31-03-2018	10-10-2018
M.Tech.	Embedded System	Cluster	Pune	03-02-2018	07-07-2018
M.Tech.	Embedded Systems	CISCO	Bangalore	14-04-2018	31-08-2018
M.Tech.	Embedded Systems	UTC	Bangalore	14-04-2018	15-09-2018
M.Tech.	Environmental Engineering	GPCB	Goa	08-01-2018	27-05-2018
M.Tech.	Microelectronics	Cluster	Bangalore	31-03-2018	20-09-2018
M.Tech.	Microelectronics	SYNOPSIS	Bangalore	10-03-2018	01-09-2018
M.Tech.	Microelectronics	Aricent	Gurgaon	17-02-2018	18-08-2018
M.Tech.	Pharmaceutical Operations & Management	Cluster	Hyderabad	23-12-2017	13-05-2018
M.Tech.	Pharmaceutical Operations & Management	Lupin	Mumbai	08-01-2018	27-05-2018
M.Tech.	Pharmaceutical Operations & Management	Cluster	Delhi	22-04-2018	09-09-2018

Degree	Programme	Organization	Location	Start Date	End Date
M.Tech.	Pharmaceutical Operations & Management	SUNPHARMA	Halol	22-04-2018	09-09-2018
M.Tech.	Pharmaceutical Operations & Management	Cluster	Pune	22-04-2018	02-09-2018
M.Tech.	Software Engineering	ORACLE	Bangalore	28-04-2018	10-11-2018
M.Tech.	Software Engineering	EMC	Bangalore	13-05-2018	04-11-2018
M.Tech.	Software Engineering	LOWES	Bangalore	21-04-2018	27-10-2018
M.Tech.	Software Engineering	SAP Labs	Bangalore	20-01-2018	30-06-2018
M.Tech.	Software Engineering	Wipro	Bangalore	17-03-2018	07-09-2018
M.Tech.	Software Engineering	CTS	Chennai	13-02-2018	15-07-2018
M.Tech.	Software Engineering	Verizon	Chennai	20-01-2018	12-07-2018
M.Tech.	Software Engineering	AVAYA	Pune	20-01-2018	23-06-2018
M.Tech.	Software Engineering	Cybage	Pune	20-01-2018	08-07-2018
M.Tech.	Software Systems	CISCO	Bangalore	14-04-2018	31-08-2018
M.Tech.	Software Systems	SYNOPSIS	Bangalore	10-03-2018	01-09-2018
M.Tech.	Software Systems	Aricent	Gurgaon	17-02-2018	18-08-2018
M.Tech.	Software Systems	UTC FIRE	Hyderabad	02-12-2017	10-06-2018
M.Tech.	Software Systems	TCS	Hyderabad	17-03-2018	16-09-2018
M.Tech.	Systems Engineering	Wipro Infotech	Bangalore	17-03-2018	07-09-2018

## First Semester 2018 -2019

Degree	Programme	Organization	Location	Start Date	End Date
B.S.	Engineering Design	L&Ties	Vadodara	21-07-2018	16-12-2018
B.S.	Manufacturing Engineering	Bharat Forge	Pune	26-08-2018	24-02-2019
B.S.	Power Engineering	Essar Power	Hazira	21-07-2018	30-12-2018
B.S.	Process Engineering	ABG	Mumbai	21-07-2018	30-12-2018
B.Tech.	Engineering Technology	John Deere	Pune	15-07-2018	02-01-2019
B.Tech.	Engineering Technology	TaTa Motors	Pune	15-10-2018	03-04-2019
B.Tech.	Information Systems	Wipro Infotech	Bangalore	01-09-2018	22-03-2019
B.Tech.	Manufacturing Technology	MARUTI	Gurgaon	28-10-2018	16-05-2019
B.Tech.	Manufacturing Technology	Tata Motors	Jamshedpur	19-08-2018	14-02-2019
B.Tech.	Manufacturing Technology	Bharat Forge	Pune	26-08-2018	25-02-2019
B.Tech.	Manufacturing Technology	TACO	Pune	16-09-2018	27-03-2019
B.Tech.	Manufacturing Technology	MAHINDRA VEHICLE	Pune	12-08-2018	06-02-2019
B.Tech.	Manufacturing Technology	CUMMINS	Pune	06-08-2018	12-02-2019
B.Tech.	Power Engineering	JSW Energy	Mumbai	21-07-2018	30-12-2018
B.Tech.	Power Engineering	Tata Power	Mumbai	21-07-2018	30-12-2018
B.Tech.	Power Engineering	Vedanta, Grasim, Ultratech	Pilani	21-07-2018	30-12-2018
B.Tech.	Process Engineering	BPCL	Mumbai	02-02-2019	12-07-2019
B.Tech.	Process Engineering	Vedanta, Grasim, Ultratech	Pilani	21-07-2018	30-12-2018
B.Tech.	Process Engineering	JSW Steel	Torangallu	01-07-2018	11-12-2018
M.Tech.	Automotive Engineering	Mercedes Benz	Bangalore	15-09-2018	08-03-2019
M.Tech.	Computing Systems & Infrastructure	VM ware	Bangalore	23-09-2018	14-04-2019

Degree	Programme	Organization	Location	Start Date	End Date
M.Tech.	Computing Systems & Infrastructure	Wipro	Bangalore	01-09-2018	22-03-2019
M.Tech.	Design Engineering	Cluster	Bangalore	23-09-2018	10-02-2019
M.Tech.	Design Engineering	Cluster	Chennai	30-09-2018	21-03-2019
M.Tech.	Design Engineering	Cluster	Delhi	30-09-2018	18-03-2019
M.Tech.	Design Engineering	Cluster	Pune	18-11-2018	09-05-2019
M.Tech.	Design Engineering	SKF	Pune	20-08-2018	28-12-2018
M.Tech.	Design Engineering	John Deere	Pune	15-07-2018	30-12-2018
M.Tech.	Design Engineering	L&Ties	Vadodara	21-07-2018	16-12-2018
M.Tech.	Embedded System	Cluster	Pune	01-09-2018	24-02-2019
M.Tech.	Embedded Systems	Cluster	Bangalore	06-10-2018	02-03-2019
M.Tech.	Embedded Systems	UTC	Bangalore	04-08-2018	26-01-2019
M.Tech.	Environmental Engineering	Goa Pollution Control Board	Goa	30-07-2018	30-12-2018
M.Tech.	Microelectronics	Cluster	Bangalore	15-09-2018	02-03-2019
M.Tech.	Microelectronics	SYNOPSIS	Bangalore	08-09-2018	23-03-2019
M.Tech.	Pharmaceutical Operations & Management	Cluster	Delhi	13-10-2018	07-04-2019
M.Tech.	Pharmaceutical Operations & Management	SUN PHARMA	Halol	09-02-2018	24-02-2019
M.Tech.	Pharmaceutical Operations & Management	Cluster	Hyderabad	30-07-2018	11-11-2018
M.Tech.	Pharmaceutical Operations & Management	Lupin	Mumbai	21-07-2018	27-12-2018
M.Tech.	Pharmaceutical Operations & Management	Cluster	Pune	13-10-2018	07-04-2019
M.Tech.	Software Engineering	ORACLE	Bangalore	21-11-2018	14-04-2019
M.Tech.	Software Engineering	EMC	Bangalore	04-11-2018	31-03-2019
M.Tech.	Software Engineering	LOWES	Bangalore	20-10-2018	18-05-2019
M.Tech.	Software Engineering	SAP Labs	Bangalore	04-08-2018	19-01-2019
M.Tech.	Software Engineering	Wipro	Bangalore	01-09-2018	22-03-2019
M.Tech.	Software Engineering	SABRE	Bangalore	13-08-2018	01-01-2019
M.Tech.	Software Engineering	Verizon	Chennai	21-07-2018	07-12-2018
M.Tech.	Software Engineering	AVAYA	Pune	21-07-2018	29-12-2018
M.Tech.	Software Engineering	Cybage	Pune	21-07-2018	29-12-2018
M.Tech.	Software System	SAMSUNG	Noida	07-09-2018	10-03-2019
M.Tech.	Software Systems	CISCO	Bangalore	08-09-2018	06-04-2019
M.Tech.	Software Systems	SYNOPSIS	Bangalore	08-09-2018	23-03-2019
M.Tech.	Software Systems	Mercedes Benz	Bangalore	15-09-2018	23-03-2019
M.Tech.	Software Systems	Aricent	Gurgaon	22-09-2018	07-04-2019
M.Tech.	Software Systems	UTC FIRE	Hyderabad	09-06-2018	16-12-2018
M.Tech.	Software Systems	TCS	Hyderabad	08-09-2018	23-02-2019
M.Tech.	Systems Engineering	Wipro Infotech	Bangalore	01-09-2018	22-03-2019

## B5.11 COURSES OFFERED

The number of courses, offered during the year 2018 is as follows:

	Number of Courses offered
Second Semester 2017-2018	700
First Semester 2018-2019	737

## B5.12 NEW COURSES INTRODUCED

The new courses introduced during the year 2018 are given below:

S.No.	Course No.	Course Title
1.	BSDC* ZC151	Writing Practice
2.	BSDC* ZC229T	Design Project
3.	BSDC* ZC312	Evolution of Design
4.	BSDC* ZC315	Web Programming
5.	BSDC* ZC316	Computing and Design
6.	BSDC* ZC317	Algorithm Design
7.	BSDC* ZC352	Advanced Writing Course
8.	BSDC* ZC411	Data Structures
9.	BSDC* ZC412	Software Design Principles
10.	BSDC* ZC413	Database Design
11.	BSDC* ZC499T	Capstone Project
12.	DSE* ZC416	Mathematical Foundations for Data Science
13.	DSE* ZC421	Ethics for Data Science
14.	DSE* ZG517	Systems for Data Analytics
15.	DSE* ZG521	Graphs - Algorithms and Mining
16.	DSE* ZG522	Big Data Systems
17.	DSE* ZG524	Deep Learning
18.	DSE* ZG525	Natural Language Processing
19.	DSE* ZG526	Probabilistic Graphical Models
20.	MEL* ZG626	High-Speed Signaling: Jitter Modeling, Analysis, and Budgeting
21.	MEL* ZG627	Power Integrity Analysis and Management for Integrated Circuits
22.	MT* ZC348	Additive Manufacturing
23.	MT* ZC349	IoT in Manufacturing
24.	PCAM* ZC111	Feature Engineering
25.	PCAM* ZC211	Regression
26.	PCAM* ZC221	Unsupervised Learning and Association Rule Mining
27.	PCAM* ZC231	Text Mining
28.	PCAM* ZC241	Deep Learning and Artificial Neural Networks
29.	PCAM* ZC311	Classification
30.	PCAM* ZC321	Capstone Project
31.	SS ZG681	Cyber Security



## B5.13 LIVE INTERACTIVE LECTURE SESSIONS

For the WILP courses offered during II Semester 2017-2018 and I Semester 2018-2019 for the B.Tech. Engineering Technology, B.Tech. Information Systems, B.Tech. Manufacturing Technology, B.Tech. Process Engineering, B.Tech. Power Engineering, MSc. Business Analytics, M.Sc. Information Systems, MBA Consultancy Management, MBA Finance, MBA Hospital & Health Systems Management, MBA Manufacturing Management, MBA Quality Management, M.Tech. Computing Systems & Infrastructure, M.Tech. Microelectronics, M.Tech. Software Systems, M.Tech. Manufacturing Management, M.Tech. Embedded Systems degree programmes, live interactive online lecture sessions were delivered through Internet Based Desktop Video Conferencing systems using Cisco WebEx technology. The video lectures were also recorded and made available on-demand. The students and faculty could also interact asynchronously and share learning resources through an online Learning Management System named Taxila, based on Moodle technology.

## Second Semester 2017 -2018

S.No.	Course No.	Course Title
1.	AAOC ZC111	PROBABILITY & STATISTICS
2.	BA ZC412	MODELS & APP IN OPER RESEARCH
3.	BA ZC413	INTRO TO STATISTICAL METHODS
4.	BA ZC414	OPTIMIZATION METHODS FOR ANALYTICS
5.	BA ZC415	ANALYTICS FOR COMPETITIVE ADVANTAGE
6.	BA ZC417	FINANCIAL RISK ANALYTICS
7.	BA ZC418	ADVANCED FINANCIAL MODELLING
8.	BA ZC421	MARKETING MODELS
9.	BA ZC423	RETAIL ANALYTICS
10.	BA ZC425	HR ANALYTICS
11.	BA ZC426	REAL TIME ANALYTICS
12.	BA ZC471/ BITS ZC471 / HHSM ZC471 /POM ZC471	MANAGEMENT INFORMATION SYSTEMS
13.	BA ZG512	PREDICTIVE ANALYTICS
14.	BA ZG521/ MBA ZG521 / POM ZG513/ FIN ZG521	FINANCIAL MANAGEMENT
15.	BA ZG522	BUSINESS DATA MINING
16.	BA ZG523/ CSI ZG523	INTRODUCTION TO DATA SCIENCE
17.	BA ZG524	ADVANCED STATISTICAL METHODS
18.	BA ZG525	BIG DATA ANALYTICS
19.	BA ZG621/ MBA ZG621 / MM ZG621/ POM ZG621	SUPPLY CHAIN MANAGEMENT
20.	BITS ZG553/ ES ZG553 / MEL ZG553	REAL TIME SYSTEMS
21.	CS ZG525/ CSI ZG525 / ES ZG526	ADVANCED COMPUTER NETWORKS
22.	CSI ZG522	DESIGN AND OPERATION OF DATA CENTERS
23.	CSI ZG526	WEB TECHNOLOGIES
24.	DE ZG513	FINITE ELEMENT METHODS
25.	DE ZG520	WORLD CLASS MANUFACTURING
26.	DE ZG526	ADVANCED COMPOSITES
27.	DE ZG535	ADVANCED ENGINEERING MATHEMATICS
28.	DE ZG541/MM ZG541	PRODUCT DESIGN
29.	DE ZG561 / ES ZG561	MECHANISMS & ROBOTICS
30.	DE ZG611	DYNAMICS AND VIBRATIONS
31.	DE ZG622	COMPUTER AIDED ANALYSIS & DESIGN
32.	DE ZG631	MATERIALS TECHNOLOGY & TESTING

S.No.	Course No.	Course Title
33.	EA ZC412/ MM ZC412	FLEXIBLE MANUFACTURING SYSTEMS
34.	EA ZC451	INTERNETWORKING TECHNOLOGIES
35.	EEE ZG512/ ES ZG512	EMBEDDED SYSTEM DESIGN
36.	EEE ZG571 /ES ZG571	OPTICAL COMMUNICATION
37.	ENGG ZC112 / PE ZC112	ELECTRICAL & ELECTRONIC TECHNOLOGY
38.	ENGG ZC232/ PE ZC234	ENGINEERING MATERIALS
39.	ENGG ZC242	MAINTENANCE & SAFETY
40.	ENGG ZC243	MECHANICAL TECHNOLOGY
41.	ES ZC263	DIGITAL ELECT & MICROPROCESSOR
42.	ES ZG523/ MM ZG523 / QM ZG523 /HHSM ZG519/ MBA ZG523	PROJECT MANAGEMENT
43.	ES ZG554	RECONFIGURABLE COMPUTING
44.	ES ZG573 / EEE ZG573	DIGITAL SIGNAL PROCESSING
45.	ES ZG642 / MEL ZG642	VLSI ARCHITECTURES
46.	ET ZC235	MANUFACTURING PROCESSES
47.	ET ZC323	MECHATRONICS & AUTOMATION
48.	ET ZC343	MATERIALS MANAGEMENT
49.	ET ZC344	INSTRUMENTATION & CONTROL
50.	ET ZC353	ENERGY MANAGEMENT
51.	ET ZC362	ENVIRONMENTAL POLLUTION CONTROL
52.	ET ZC413	ENGINEERING DESIGN
53.	ET ZC416	PRODUCTION PLANNING & CONTROL
54.	ET ZC417	MANUFACTURING EXCELLENCE
55.	ET ZC423	ESSENTIALS OF PROJECT MGMT
56.	ET ZC424	PLANT LAYOUT AND DESIGN
57.	ET ZC434	QUALITY CTRL ASSU AND RELIABILITY
58.	FIN ZG512	GLOBAL FIN MARKETS AND PRODUCTS
59.	FIN ZG513	MGMT OF BANKS & FINANCIAL INST
60.	FIN ZG514	DERIVATIVE & RISK MANAGEMENT
61.	FIN ZG518	MULTINATIONAL FINANCE
62.	FIN ZG520	SECURITY ANALYSIS & PORTFOLIO MANAGEMENT
63.	FIN ZG523	MARKET RISK MANAGEMENT
64.	FIN ZG526	ADVANCED RISK MODELS
65.	FIN ZG528	VENTURE CAPITAL AND PRIVATE EQUITY
66.	HHSM ZC417	MANAGERIAL COMMUNICATION
67.	HHSM ZG516	EPIDEMIC AND DISASTER MANAGEMENT
68.	HHSM ZG615	SERVICE QUALITY EXCELLENCE IN HEALTHCARE
69.	HHSM ZG631	INTRODUCTION TO HEALTH SYSTEMS AND ENVIRONMENTAL HEALTH
70.	IS ZC328	SOFTWARE TESTING
71.	IS ZC337	DATABASE SYSTEMS & APPLICATIONS
72.	IS ZC343	SOFTWARE ENGINEERING
73.	IS ZC364	OPERATING SYSTEMS
74.	IS ZC373	COMPILER DESIGN
75.	IS ZC415	DATA MINING

S.No.	Course No.	Course Title
76.	IS ZC422	PARALLEL COMPUTING
77.	IS ZC423/ CSI ZC423	S/W DEV FOR PORTABLE DEVICES
78.	IS ZC424/ ES ZC424	SOFTWARE FOR EMBEDDED SYSTEMS
79.	IS ZC444	ARTIFICIAL INTELLIGENCE
80.	IS ZC446/ES ZC446 / CSI ZC446	DATA STORAGE TECH & NETWORKS
81.	IS ZC462/ CSI ZC462	NETWORK PROGRAMMING
82.	IS ZC464	MACHINE LEARNING
83.	IS ZC467/ ES ZC481	COMPUTER NETWORKS
84.	MATH ZC222	DISCRETE STR FOR COMP SCIENCE
85.	MATH ZC233/ PE ZC233	CALCULUS
86.	MATH ZC234 / PE ZC235	LINEAR ALGEBRA & OPTIMIZATION
87.	MBA ZC411/ BA ZC411	MARKETING
88.	MBA ZC415 / FIN ZC415	FINANCIAL & MGMT ACCOUNTING
89.	MBA ZC416	MANAGERIAL ECONOMICS
90.	MBA ZC417	QUANTITATIVE METHODS
91.	MBA ZG511	MANAGING PEOPLE & ORGANIZATION
92.	MBA ZG513	ENTERPRISE RESOURCE PLANNING
93.	MBA ZG514/ MM ZG514/ QM ZG514	LEADERSHIP & MANAGING CHANGE
94.	MBA ZG515	CONSULTING & PEOPLE SKILLS
95.	MBA ZG524/QM ZG524	QUALITY MANAGEMENT SYSTEMS
96.	MBA ZG525	BUSINESS PROCESS ANALYSIS
97.	MBA ZG526 / QM ZG526	OPERATIONS MANAGEMENT
98.	MBA ZG531/QM ZG531	STATISTICAL QUALITY CONTROL
99.	MBA ZG541	CONSULTANCY PRACTICE
100.	MBA ZG634	STRATEGIC CHANGE MANAGEMENT
101.	MBA ZG641	MANAGEMENT INFORMATION AND DECISION SUPPORT SYSTEMS
102.	MEL ZG611	IC FABRICATION TECHNOLOGY
103.	MEL ZG621 / ES ZG621	VLSI DESIGN
104.	MEL ZG632	ANALOG IC DESIGN
105.	MEL ZG641	CAD FOR IC DESIGN
106.	MGTS ZC211	PRINCIPLES OF MANAGEMENT
107.	MM ZC441 / QM ZC441/ POM ZC441	HUMAN RESOURCE MANAGEMENT
108.	MM ZG512	MANUFACTURING STRATEGY
109.	MM ZG513	MAINTENANCE ENGINEERING
110.	MM ZG515/ QM ZG515	QUANTITATIVE METHODS
111.	MM ZG522/ QM ZG532/ MBA ZG522/ HHSM ZG518	TOTAL QUALITY MANAGEMENT
112.	MM ZG533	MANUFACTURING PLANNING & CONT
113.	MM ZG534	SUSTAINABLE MANUFACTURING
114.	MM ZG535 / QM ZG535 / MBA ZG535	DECISION ANALYSIS
115.	MM ZG537 / MBA ZG537	LEAN MANUFACTURING
116.	MM ZG611 /POM ZG611/ QM ZG611/ MBA ZG611 / POMSS ZG611	STRAT MGMT & BUSINESS POLICY

S.No.	Course No.	Course Title
117.	MM ZG627	MANAGERIAL CORPORATE FINANCE
118.	PE ZC319	UNIT OPERATIONS - I
119.	PE ZC321	CHEMICAL PROCESS CALCULATIONS
120.	POM ZG512 / POMSS ZG512	DOSAGE FORM DESIGN
121.	POM ZG545	INTELLECTUAL PROPERTY RIGHTS AND PHARMACEUTICALS
122.	POM ZG551 / POMSS ZG551	ADVANCED PHYSICAL PHARMACEUTICS
123.	POM ZG631 / POMSS ZG631	TQM TOOLS AND TECHNIQUES
124.	QM ZG528	RELIABILITY ENGINEERING
125.	QM ZG536	DESIGN OF EXPERIMENTS
126.	QM ZG663	CONCURRENT ENGINEERING
127.	SS ZG513 /ES ZG513/ CSI ZG513	NETWORK SECURITY
128.	SS ZG514	OBJECT ORIENTED ANALYSIS & DESIGN
129.	SS ZG515/ CSI ZG515	DATA WAREHOUSING
130.	SS ZG518	DATABASE DESIGN & APPLICATIONS
131.	SS ZG519	DATA STRUCTURES & ALGORITHM DESIGN
132.	SS ZG520/ MEL ZG520/ES ZG520	WIRELESS & MOBILE COMMUNICATION
133.	SS ZG526	DISTRIBUTED COMPUTING
134.	SS ZG527/ CSI ZG527	CLOUD COMPUTING
135.	SS ZG531/ ES ZG531	PERVASIVE COMPUTING
136.	SS ZG537	INFORMATION RETRIEVAL
137.	SS ZG547	USABILITY ENGINEERING
138.	SS ZG548	ADVANCED DATA MINING
139.	SS ZG552	SOFTWARE TESTING METHODOLOGIES
140.	SS ZG554	DISTRIBUTED DATA SYSTEMS
141.	SS ZG582/ CSI ZG582	TELECOM NETWORK MANAGEMENT
142.	SS ZG622	SOFTWARE PROJECT MANAGEMENT
143.	SS ZG626 / MEL ZG651	HARDWARE SOFTWARE CO-DESIGN
144.	SS ZG653	SOFTWARE ARCHITECTURES
145.	SS ZG656 / ES ZG656 / CSI ZG656	NETWORKED EMBEDDED APPLICATIONS
146.	SS ZG661 /QM ZG662/ MBA ZG661	SOFTWARE QUALITY MANAGEMENT
147.	TA ZC163	COMPUTER PROGRAMMING ( C )
148.	TA ZC164/ PE ZC164	COMPUTER PROGRAMMING (MATLAB)
149.	TA ZC233 / PE ZC213	ENGINEERING MEASUREMENTS
150.	TA ZC312	TECHNICAL REPORT WRITING
151.	POWAB ZC315	POWER PLANT ENGINEERING
152.	POWAB ZC342	POWER SYSTEM ENGINEERING - I
153.	POWAB ZC344	INSTRUMENTATION & CONTROL
154.	POWAB ZC431	MAINTENANCE & SAFETY
155.	POWJS ZC415	ESSENTIALS OF PROJECT MANAGEMENT
156.	POWJSZC411	ENVIRONMENTAL POLLUTION CONT
157.	POWJSZC413	PROCESS CONTROL
158.	POWJSZC452	RENEWABLE ENERGY
159.	POWTP ZC234	LINEAR ALGEBRA & OPTIMIZATION
160.	POWTP ZC243	ENGINEERING MEASUREMENTS

S.No.	Course No.	Course Title
161.	POWTP ZC315	TRANSPORT PHENOMENA
162.	POWTP ZC343	MICROPROCESSORS & MICROCONTROLLERS
163.	PEAB ZC312	CHEMICAL ENGG THERMODYNAMICS
164.	PEAB ZC319	UNIT OPERATIONS - I
165.	PEAB ZC323	PROCESS DESIGN PRINCIPLES
166.	PEAB ZC414	PRODUCTION PLANNING & CONTROL

## First Semester 2017 -2018

S.No.	Course No.	Course Title
1.	AAOC ZC111	PROBABILITY & STATISTICS
2.	BA ZC411 / MBA ZC411	MARKETING
3.	BA ZC412	MODELS & APP IN OPR RESEARCH
4.	BA ZC413	INTRO TO STATISTICAL METHODS
5.	BA ZC414	OPTIMIZATION METHODS FOR ANALYTICS
6.	BA ZC415	ANALYTICS FOR COMPETITIVE ADV
7.	BA ZC417	FINANCIAL RISK ANALYTICS
8.	BA ZC418	ADVANCED FINANCIAL MODELLING
9.	BA ZC420	DATA VISUALIZATION
10.	BA ZC421	MARKETING MODELS
11.	BA ZC423	RETAIL ANALYTICS
12.	BA ZC424	SUPPLY CHAIN ANALYTICS
13.	BA ZC426	REAL TIME ANALYTICS
14.	BA ZC471 / BITS ZC471/ POM ZC471	MANAGEMENT INFORMATION SYSTEMS
15.	BA ZG512	PREDICTIVE ANALYTICS
16.	BA ZG521 / FIN ZG521 / MBA ZG521	FINANCIAL MANAGEMENT
17.	BA ZG522	BUSINESS DATA MINING
18.	BA ZG523	INTRO TO DATA SCIENCE
19.	BA ZG524	ADVANCED STATISTICAL METHODS
20.	BA ZG525	BIG DATA ANALYTICS
21.	BITS ZC463/CSI ZC463	CRYPTOGRAPHY
22.	BITS ZG553 / ES ZG553 / MEL ZG553	REAL TIME SYSTEMS
23.	CS ZG524/ES ZG524/MEL ZG524	REAL TIME OPERATING SYSTEMS
24.	CS ZG525	ADVANCED COMPUTER NETWORKS
25.	CSI ZC462 / IS ZC462	NETWORK PROGRAMMING
26.	CSI ZG513 / ES ZG513 / SS ZG513	NETWORK SECURITY
27.	CSI ZG514	INTRO TO DEVOPS
28.	CSI ZG515 / SS ZG515	DATA WAREHOUSING
29.	CSI ZG524	MIDDLEWARE TECHNOLOGIES
30.	CSI ZG526	WEB TECHNOLOGIES
31.	CSI ZG527 / SS ZG527	CLOUD COMPUTING
32.	CSI ZG528	CYBER PHYSICAL SYSTEMS
33.	DE ZC415/MEL ZC415	INTRODUCTION TO MEMS

S.No.	Course No.	Course Title
34.	DE ZG513	FINITE ELEMENT METHODS
35.	DE ZG514	FRACTURE MECHANICS
36.	DE ZG515	COMPUTATIONAL FLUID DYNAMICS
37.	DE ZG516	MECHATRONICS
38.	DE ZG520	WORLD CLASS MANUFACTURING
39.	DE ZG523 / ES ZG523/ MBA ZG523/ MM ZG523/ QM ZG523	PROJECT MANAGEMENT
40.	DE ZG525	MECHANICAL SYSTEM DESIGN
41.	DE ZG526	ADVANCED COMPOSITES
42.	DE ZG532	QUALITY ASSURANCE & RELIABILITY
43.	DE ZG535	ADV ENGINEERING MATHEMATICS
44.	DE ZG541 / MM ZG541	PRODUCT DESIGN
45.	DE ZG611	DYNAMICS & VIBRATIONS
46.	DE ZG622	COMPUTER AIDED ANALYSIS & DESIGN
47.	DE ZG631	MATERIALS TECH & TESTING
48.	DE ZG663 / QM ZG663	CONCURRENT ENGINEERING
49.	EA ZC412 / MM ZC412	FLEXIBLE MANUFACTURING SYSTEMS
50.	EA ZC451	INTERNETWORKING TECHNOLOGIES
51.	EEE ZG512 / ES ZG512/ MEL ZG526	EMBEDDED SYSTEM DESIGN
52.	EEE ZG571 / ES ZG571	OPTICAL COMMUNICATION
53.	EEE ZG573 / ES ZG573 / MEL ZG573	DIGITAL SIGNAL PROCESSING
54.	ENGG ZC112 / PE ZC112	ELECTRICAL & ELECTRONIC TECH
55.	ENGG ZC232 / PE ZC234	ENGINEERING MATERIALS
56.	ENGG ZC242 / POWTP ZC431	MAINTENANCE & SAFETY
57.	ENGG ZC243	MECHANICAL TECHNOLOGY
58.	ES ZC263	DIGITAL ELECT & MICROPROCESSORS
59.	ES ZC424 / IS ZC424	SOFTWARE FOR EMBEDDED SYSTEMS
60.	ES ZC446 / IS ZC446	DATA STORAGE TECH & NETWORKS
61.	ES ZC481 / IS ZC467	COMPUTER NETWORKS
62.	ES ZG531 / SS ZG531	PERVASIVE COMPUTING
63.	ES ZG532 / MEL ZG531	TESTABILITY FOR VLSI
64.	ES ZG554 / MEL ZG554	RECONFIGURABLE COMPUTING
65.	ES ZG561/ DE ZG561	MECHANISMS & ROBOTICS
66.	ES ZG612	FAULT TOLERANT SYSTEM DESIGN
67.	ES ZG613 / MEL ZG613	ADVANCED DIGITAL SIGNAL PROCESSING
68.	ES ZG621/ MEL ZG621	VLSI DESIGN
69.	ES ZG656 / SS ZG656 / MEL ZG656	NETWORK EMBEDDED APPLICATIONS
70.	ET ZC235	MANUFACTURING PROCESSES
71.	ET ZC323	MECHATRONICS & AUTOMATION
72.	ET ZC343	MATERIALS MANAGEMENT
73.	ET ZC344	INSTRUMENTATION & CONTROL
74.	ET ZC353	ENERGY MANAGEMENT
75.	ET ZC362	ENVIRONMENTAL POLLUTION CTRL
76.	ET ZC413	ENGINEERING DESIGN

S.No.	Course No.	Course Title
77.	ET ZC416	PRODUCTION PLANNING & CONTROL
78.	ET ZC417	MANUFACTURING EXCELLENCE
79.	ET ZC423	ESSENTIALS OF PROJECT MGMT
80.	ET ZC424 /POWJS ZC482	PLANT LAYOUT AND DESIGN
81.	ET ZC434	QUALITY CONTROL ASSURANCE & RELIABILITY
82.	FIN ZC415 / MBA ZC415	FINANCIAL & MANAGEMENT ACCOUNT
83.	FIN ZG512	GLOBAL FIN MKTS AND PRODUCTS
84.	FIN ZG513	MGT OF BANKS & FIN INSTITUTIONS
85.	FIN ZG514	DERIVATIVES & RISK MANAGEMENT
86.	FIN ZG518	MULTINATIONAL FINANCE
87.	FIN ZG520	SECURITY ANALYSIS & PORTFOLIO MGMT
88.	FIN ZG522	MERGERS ACQUISITIONS AND CORPORATE RESTRUCTURING
89.	FIN ZG523	MARKET RISK MANAGEMENT
90.	FIN ZG528	VENTURE CAPITAL & PVT EQUITY
91.	HHSM ZC417	MANAGERIAL COMMUNICATION
92.	HHSM ZG513	BIostatISTICS & EPIDEMIOLOGY
93.	HHSM ZG516	EPIDEMIC & DISASTER MGMT
94.	HHSM ZG517	HEALTH CARE MANAGEMENT
95.	HHSM ZG614	HOSPITAL OPERATIONS MANAGEMENT
96.	HHSM ZG615	SERVICE QUALITY EXC IN HEALTHCARE
97.	HHSM ZG617	STRATEGIC MGMT OF HEALTHCARE ORG
98.	HHSM ZG631	INT TO HEALTH SYS & ENV HEALTH
99.	IS ZC313	OBJ ORIENT PROGRAMMING & DESIGN
100.	IS ZC327	SYSTEMS PROGRAMMING
101.	IS ZC328	SOFTWARE TESTING
102.	IS ZC343	SOFTWARE ENGINEERING
103.	IS ZC353	COMPUTER ORG & ARCHITECTURE
104.	IS ZC363	DATA STRUCTURES & ALGORITHMS
105.	IS ZC373	COMPILER DESIGN
106.	IS ZC415	DATA MINING
107.	IS ZC422	PARALLEL COMPUTING
108.	IS ZC423 / CSI ZC423	S/W DEV FOR PORTABLE DEVICES
109.	IS ZC444	ARTIFICIAL INTELLIGENCE
110.	IS ZC464	MACHINE LEARNING
111.	MATH ZC222	DISCRETE STR FOR COMP SCIENCE
112.	MATH ZC233 / PE ZC233	CALCULUS
113.	MATH ZC234 / PE ZC235	LINEAR ALGEBRA & OPTIMIZATION
114.	MBA ZC416	MANAGERIAL ECONOMICS
115.	MBA ZC417	QUANTITATIVE METHODS
116.	MBA ZG511	MANAGING PEOPLE & ORGANIZATIONS
117.	MBA ZG513	ENTERPRISE RESOURCE PLANNING
118.	MBA ZG514 / MM ZG514 / QM ZG514	LEADERSHIP & MANAGING CHANGE
119.	MBA ZG515	CONSULTING & PEOPLE SKILLS

S.No.	Course No.	Course Title
120.	MBA ZG522 / MM ZG522/ QM ZG532	TOTAL QUALITY MANAGEMENT
121.	MBA ZG525	BUSINESS PROCESS ANALYSIS
122.	MBA ZG526 / QM ZG526	OPERATIONS MANAGEMENT
123.	MBA ZG531 / QM ZG531	STATISTICAL QUALITY CONTROL
124.	MBA ZG535 / MM ZG535 / QM ZG535	DECISION ANALYSIS
125.	MBA ZG537 / MM ZG537	LEAN MANUFACTURING
126.	MBA ZG541	CONSULTANCY PRACTICE
127.	MBA ZG611 / MM ZG611/ QM ZG611	STRAT MGMT & BUSINESS POLICY
128.	MBA ZG621 / MM ZG621/ BA ZG621	SUPPLY CHAIN MANAGEMENT
129.	MBA ZG634	STRATEGIC CHANGE MANAGEMENT
130.	MBA ZG661 / QM ZG662 / SS ZG661	SOFTWARE QUALITY MANAGEMENT
131.	MEL ZG511	DESIGN AND ANALYSIS OF ALGORITHMS
132.	MEL ZG623	ADVANCED VLSI DESIGN
133.	MEL ZG631	PHYSICS & MOD OF MICROELECT DEVICES
134.	MGTS ZC211	PRINCIPLES OF MANAGEMENT
135.	MM ZC441 / QM ZC441/ POM ZC 441	HUMAN RESOURCE MANAGEMENT
136.	MM ZG512	MANUFACTURING STRATEGY
137.	MM ZG513	MAINTENANCE ENGINEERING
138.	MM ZG515 / QM ZG515	QUANTITATIVE METHODS
139.	MM ZG533	MANUFACTURING PLANNING & CONT
140.	MM ZG534	SUSTAINABLE MANUFACTURING
141.	MM ZG627	MANAGERIAL CORPORATE FINANCE
142.	PE ZC164 / TA ZC164	COMPUTER PROGRAMMING (MATLAB)
143.	PE ZC213 / TA ZC233	ENGINEERING MEASUREMENTS
144.	PE ZC313	CHEMICAL ENGG THERMODYNAMICS
145.	PE ZC318	FUNDA OF TRANSPORT PROCESSES
146.	PE ZC319	UNIT OPERATIONS - I
147.	PE ZC321	CHEMICAL PROCESS CALCULATIONS
148.	PE ZC323	PROCESS DESIGN PRINCIPLES
149.	PE ZC412	PROCESS EQUIPMENT DESIGN
150.	POM ZG515	PHARMACEUTICAL ADMINISTRATION AND MANAGEMENT
151.	POM ZG522	QUALITY ASSURANCE AND REGULATORY AFFAIRS
152.	QM ZG524 / MBA ZG524	QUALITY MANAGEMENT SYSTEMS
153.	QM ZG528	RELIABILITY ENGINEERING
154.	QM ZG536	DESIGN OF EXPERIMENTS
155.	SS ZG514	OBJ ORIENTED ANALYSIS & DESIGN
156.	SS ZG518/ CSI ZG518	DATABASE DESIGN & APPLICATIONS
157.	SS ZG519	DATA STRUCTURES & ALGORITHM DESIGN
158.	SS ZG520 / MEL ZG520/ES ZG520/CSI ZG520	WIRELESS & MOB COMMUNICATION
159.	SS ZG526	DISTRIBUTED COMPUTING
160.	SS ZG536	ADV STAT TECHNIQUES FOR ANALYTICS



S.No.	Course No.	Course Title
161.	SS ZG537	INFORMATION RETRIEVAL
162.	SS ZG538/CSI ZG538	INFRASTRUCTURE MANAGEMENT
163.	SS ZG547	USABILITY ENGINEERING
164.	SS ZG548	ADVANCED DATA MINING
165.	SS ZG552	SOFTWARE TESTING METHODOLOGIES
166.	SS ZG554	DISTRIBUTED DATA SYSTEMS
167.	SS ZG582 / CSI ZG582	TELECOM NETWORK MANAGEMENT
168.	SS ZG622	SOFTWARE PROJECT MANAGEMENT
169.	SS ZG626 / MEL ZG651 / ES ZG626	HARDWARE SOFTWARE CO-DESIGN
170.	SS ZG653	SOFTWARE ARCHITECTURES
171.	TA ZC163	COMPUTER PROGRAMMING ( C )
172.	TA ZC312	TECHNICAL REPORT WRITING
173.	PEAB ZC234	MANUFACTURING PROCESSES
174.	PEAB ZC320	UNIT OPERATIONS - II
175.	PEAB ZC415	PROCESS EQUIPMENT DESIGN
176.	PEAB ZC434 / POWAB ZC434	QUALITY CONTROL ASSU & RELIAB
177.	POWAB ZC314	PRIME MOVERS & FLUID MACHINES
178.	POWAB ZC411	ENVIRONMENTAL POLLUTION CONT
179.	POWAB ZC441	POWER SYSTEMS ENGINEERING II
180.	POWJS ZC232	PRINCIPLES OF MANAGEMENT
181.	POWJS ZC321	TECHNICAL REPORT WRITING
182.	POWJS ZC333	ENERGY MANAGEMENT
183.	POWTP ZC317	POWER PLANT ENGINEERING
184.	POWTP ZC342	POWER SYSTEMS ENGINEERING - I
185.	POWTP ZC344	INSTRUMENTATION & CONTROL

#### B5.14 PROJECT WORK AND DISSERTATION

Students of B.S., B.Tech. programmes do a full-semester Project Work in their final semester, while students of higher degree programmes like M.S., M.Tech., MBA and M.Phil. submit a Dissertation / Project based on a research and development effort. Annexure 4 and Annexure 5 list the titles of some of the Projects and Dissertations submitted by the students of WILP during the year 2018.

**B5.15 ACADEMIC AND PROFESSIONAL COUNSELLING**

During the year, the Academic Monitoring Board (AMB), estimated the extent to which students under its purview fell short of the minimum academic performance, drew up a time-frame within which afflictions were to be removed, determined the package of courses for their registration in each semester and laid down the necessary stipulations for achieving intermediate targets. It further monitored their progress and applied necessary mid-course corrections, wherever required. The statistical summary of the number of students under its purview during the year is given below:

		II Semester 2017-2018
1.	Registered and under the under the purview of AMB at the beginning of the semester	424
2.	Declared outside the purview of AMB at the end of the semester	250
3.	Discontinued during the semester	29
4.	Continue to be under the purview of AMB	145
5.	New cases referred to AMB at the end of the Semester	629
6.	Under the purview of AMB at the beginning of the next semester	774
7.	Registered and under the purview of AMB at the beginning of the next semester	572

**B5.16 AWARD OF DEGREES**

During the year, a total of 4508 students graduated. The details on the award of degrees are given below.

	Number of degrees awarded
82 <sup>nd</sup> Award (vide Board of Governors meeting held on 03.03.2018)	2684(758)
83 <sup>rd</sup> Award (vide Board of Governors meeting held on 20.07.2018)	1824(414)
Total:	4508(1172)

Note: *The numbers in brackets indicate number of*

Statistical details of these degrees are given in *Annexure 6 (Part B5)*.

**B5.17 NEW COLLABORATIVE PROGRAMMES INTRODUCED**

The following new corporate partnership programmes were introduced during the year 2018

1. B.Tech. Engineering Technology (John Deere)
2. M.B.A. Manufacturing Management (Bosch)
3. M.Tech. Automotive Engineering (Mercedes-Benz)
4. M.Tech. Computing Systems & Infrastructure (VMware)
5. M.Tech. Embedded Systems (Aricent Technologies)
6. M.Tech. Microelectronics (Aricent Technologies)
7. M.Tech. Software Systems (Aricent Technologies)
8. M.Tech. Software Systems (Mercedes-Benz)
9. M.Tech. Software Systems (Samsung)

**B5.18 NEW PROGRAMMES INTRODUCED**

The following new programmes were introduced during the year 2018

1. Post Graduate Certificate Programme in Artificial Intelligence & Machine Learning
2. M.Tech. Data Science & Engineering
3. B.Sc. Design & Computing
4. Integrated M.Tech. Microelectronics

**B5.19 COLLABORATIVE PROGRAMMES UNDER DISCUSSION**

The new collaborative programmes under discussion are indicated below:

- B.Sc. Design & Computing with HCL at various locations
- B.Tech. Manufacturing Technology with Subros Ltd, Manesar
- M.Tech. Data Science & Engineering with UTC, Hyderabad
- M.Tech. Data Science & Engineering with Avaya, Pune
- M.Tech. Data Science & Engineering with Intuit, Bangalore
- M.Tech. Data Science & Engineering with Atmeecs, Hyderabad
- M.Tech. Software Engineering with TCS at Various locations
- M.Tech. Embedded Systems with Valeo, Chennai
- M.Tech. Software Systems with Accolite Software, New Delhi

**B5.20 New Initiatives in WILP****A. Digital Learning Initiatives:**

1. **Enhanced Digital Content:** The efforts on development of digital content continued by way of updating the existing content and creating new content for several courses. The improved structure of content includes student notes, teaching notes and lecture videos with embedded quiz questions. In addition to the lecture capsules, new digital learning initiatives focus on new content types such as case studies, video cases, and simulation games.
2. **Remote Labs and Virtual Labs on the Cloud:** Experiential learning is a key component of the pedagogy of WILP wherein remote labs and virtual labs play a critical role. All experiential learning labs were moved on to the cloud platform as fully managed services for the students. This enables high availability of the lab environment with the provision to scale-up or scale-down based on extent of usage.  
  
During the year, dedicated advanced remote labs have been setup in the Hyderabad Campus for Distributed & Cloud Computing and for Automotive Engineering. In addition to these, remote labs are being commissioned for other engineering courses like Mechatronics, Instrumentation & Control, and Engineering Measurements. Virtual labs have been created for other courses like IC Engines and Quality Control Assurance & Reliability, using industry scale virtual tools.
3. **Enhancement of Live-lecture delivery studios:** In addition to the existing live-lecture rooms, exclusive live-lecture delivery studio rooms are being created that enable instructors to use multiple devices such as electronic whiteboards, digital annotators, and digital document cameras, to provide a physical classroom experience. Students are encouraged to actively participate in discussion forums related to the course using the digital platform. The detailed analytics engine provides vital data to understand faculty and student engagement in teaching-learning process that is used for continuous improvement.
4. **Outcome based assessment:** Adopting the ABET framework for accreditation, assessment of achievement of learning outcomes was started in five programmes, wherein each outcome achievement can be measured, analyzed and continuously improved. The same framework will be deployed for other programmes in the coming year.
5. **Research in Education:** As a part of sharing best practices across academic communities, various academic initiatives undertaken in WILP were presented in international conferences. Effort is on in popularizing these initiatives across faculty groups and encouraging them to undertake research-based practices in their teaching-learning process.

**B. Information Technology and Operations Initiatives:**

1. **Launch of Student Care Helpdesk portal:** A revamped helpdesk portal for students was launched, that allows them to easily raise queries on any operational aspect of the student lifecycle. This new system enables users to track queries comprehensively and provides the facility to escalate and transfer queries to the people concerned. It also enables students to give feedback regarding the responses provided, that helps WILP to identify areas for improvement. Queries thus raised are used to identify areas of concern for students which can be targeted for remediation.
2. **Publishing Grade Sheets online:** Online publishing of grade sheets soon after the declaration of results was enabled through the integrated e-learning portal. This has significantly reduced the logistics of delivering grade sheets to WILP students.
3. **Digitization of question papers for exams:** Digitization and secure distribution of question papers were enabled for WILP exams across locations, in partnership with TCS iON. After question papers are created, they are encrypted and uploaded onto the iON data center. The question papers are downloaded and decrypted on electronic tablet devices, just before the exam starts. This solution has helped reduce administrative efforts and costs by automating processes related to the logistics of question paper distribution.

**C. Marketing Initiatives:**

1. **Launch of the revamped WILP website:** A new website was launched in May 2018, featuring a refreshed user interface and design theme. The website structure and layout was updated to present information in a way that was easier and faster to find. The new design theme blends the industrial and academic design elements to better reflect the brand positioning of WILP. An independent site ([www.bits-pilani-wilp.ac.in](http://www.bits-pilani-wilp.ac.in)) now allows for better monitoring and control of marketing investments. With a stable content now available to aspirants and candidates, the next phase of development will focus on the corporate segment and will allow for integrating whitepapers, corporate testimonials, etc.
2. **Launch of EMI Option for Fee Payment:** The Online Application Center launched in 2017 was further enhanced this year with the introduction of the EMI facility for fee payment. While at the beginning this options was introduced to new applicants, it was quickly made available to registered students as well. This was welcomed by applicants and students, and has helped improve admissions as well as registrations.

## LIST OF ANNEXURES

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**DETAILS OF ADMISSIONS MADE DURING THE YEAR 2018**

**(A) Second Semester 2017-2018**

<b>PROGRAMMES</b>	<b>No. of students joined</b>
<b>1. PG Certificate &amp; Diploma Programmes:</b>	
<b>Certificate</b>	
General Management	65(001)
<b>Post Graduate Certificate</b>	
Big Data Engineering	240(057)
Internet of Things	103(009)
<b>Post Graduate Diploma</b>	
Finance	4(001)
<b>Sub total</b>	<b>412(068)</b>
<b>2. Integrated First Degree Programmes:</b>	
<b>B.Tech.</b>	
Engineering Technology	209(002)
Manufacturing Technology	40(001)
Process Engineering	88(001)
<b>M.Sc.</b>	
Business Analytics	88(016)
<b>Sub Total</b>	<b>425(020)</b>
<b>3. Higher Degree Programmes:</b>	
<b>M.Tech.</b>	
Automotive Engineering	41(000)
Computing Systems & Infrastructure	397(200)
Design Engineering	183(024)
Embedded Systems	79(013)
Manufacturing Management	68(005)
Microelectronics	103(023)
Quality Management	78(011)
Software Engineering	92(043)
Software Systems	642(149)
<b>MBA</b>	
Consultancy Management	38(012)
Finance	36(009)
Hospital & Health Systems Management	53(024)
Manufacturing Management	44(004)
Quality Management	35(007)
<b>Sub total</b>	<b>1889(524)</b>
<b>Total</b>	<b>2726((612)</b>

**(B) First Semester 2018-2019**

<b>PROGRAMMES</b>	<b>No. of students joined</b>	
<b>1. PG Certificate &amp; Diploma Programmes:</b>		
<b>Certificate</b>		
Manufacturing Practice		87(004)
<b>Post Graduate Certificate</b>		
Big Data Engineering		273 (065 )
Internet of Things		96(016)
<b>Post Graduate Diploma</b>		
Finance		11 (005 )
	<b>Sub total</b>	<b>467(089)</b>
<b>2. Integrated First Degree Programmes:</b>		
<b>B.Tech.</b>		
Engineering Technology		356 (17 )
Manufacturing Technology		109(02 )
Process Engineering		22 (2 )
<b>M.Sc.</b>		
Business Analytics		99 (18 )
	<b>Sub total</b>	<b>586(039)</b>
<b>3. Higher Degree Programmes:</b>		
<b>M.Tech.</b>		
Automotive Engineering		40(04)
Computing Systems & Infrastructure		160(30)
Data Science & Engineering		395(57)
Design Engineering		198(16)
Embedded Systems		192(41)
Manufacturing Management		135(09)
Microelectronics		85(16)
Pharmaceutical Operations & Management		94(12)
Quality Management		95(10)
Software Engineering		98(42)
Software Systems		808(183)
Systems Engineering		51(6)
<b>MBA</b>		
Consultancy Management		83(24)
Finance		54(13)
Hospital & Health Systems Management		79(30)
Manufacturing Management		92(12)
Quality Management		70(30)
	<b>Sub total</b>	<b>2729(535)</b>
	<b>Total</b>	<b>3782(663)</b>

**SUMMARY**

	<b>II Semester 2017-18</b>	<b>I Semester 2018-19</b>	<b>Total</b>
PG Certificate & Diploma Programmes	412(068)	467(089)	<b>879(0157)</b>
Integrated First Degree Programmes	425(020)	586(039)	<b>1011(0059)</b>
Higher Degree Programmes	1889(524)	2729(535)	<b>4618(1059)</b>
<b>Total</b>	<b>2726(612)</b>	<b>3782(663)</b>	<b>6508(1275)</b>

**NUMBER OF STUDENTS REGISTERED IN FIRST SEMESTER 2018-2019**

Program	Year of Admission						Grand Total
	2013 & earlier	2014	2015	2016	2017	2018	
<b>Integrated First Degree Prog.</b>							
B.Optom.			88(66)				88(66)
<b>B.S.</b>							
Engineering Design	1(1)						1(1)
Engineering Technology	22(0)	14(0)			1(0)		37
Information Systems	4(0)						4
Optometry	1(0)	7(6)					8(6)
<b>B.Tech.</b>							
Engineering Technology			449(14)	430(17)	457(14)	353(17)	1689(62)
Information Systems			229(82)	225(83)			454(165)
Manufacturing Technology			86(0)	198(3)	131(11)	25(2)	440(16)
Marine Engineering	11(0)	63(1)	227(2)				301(3)
Nautical Technology	9(0)	14(1)	77(1)				100(2)
Power Engineering	1(0)		29(0)	31(0)	43(0)		104
Process Engineering		1(0)	49(1)	87(1)	98(3)	22(2)	257(7)
<b>M.Sc.</b>							
Business Analytics				77(21)	163(31)	98(18)	338(70)
Information Systems				5(3)			5(3)
<b>Sub-Total</b>	<b>49(1)</b>	<b>99(8)</b>	<b>1234(166)</b>	<b>1053(128)</b>	<b>893(59)</b>	<b>498(39)</b>	<b>3826(401)</b>
<b>Higher Degree Programmes</b>							
<b>M.Phil.</b>							
Hospital & Health Systems Mngt	2(0)		2(0)	9(1)			13(1)
<b>M.S.</b>							
Consultancy Management	2(0)						2(0)
Design Engineering	2(0)						2(0)
Embedded Systems	1(0)						1(0)
Manufacturing Management	5(0)						5(0)
Software Engineering	9(8)						9(8)
Software Systems	20(8)	8(2)					28(10)
<b>M.Tech.</b>							
Automotive Engineering					40	40(4)	80(4)
Computing Systems & Infrastructure				677(413)	491(218)	158(29)	1326(660)



Program	Year of Admission						Grand Total
	2013 & earlier	2014	2015	2016	2017	2018	
Data Science & Engineering						392(57)	392(57)
Design Engineering			1(1)	176(17)	385(40)	211(21)	773(79)
Embedded Systems				98(16)	233(56)	191(41)	522(113)
Environmental Engineering					34(9)	3(0)	37(9)
Manufacturing Management	1(0)	3(0)	6(0)	137(6)	252(18)	133(9)	532(33)
Microelectronics				48(9)	185(37)	84(16)	317(62)
Pharmaceutical Operations & Mngt				26(6)	105(17)	93(12)	224(35)
Quality Management		4(1)	8(0)	107(17)	182(19)	95(10)	396(47)
Software Engineering	7(2)	781(449)	2252(1228)	1614(891)	200(86)	98(42)	4952(2698)
Software Systems	35(10)	33(5)	93(31)	661(162)	1375(348)	802(182)	2999(738)
<b>MBA</b>							
Consultancy Management				39(5)	68(16)	83(24)	190(45)
Finance				32(5)	66(16)	54(13)	152(34)
Hospital & Health Systems Mgt					98(43)	78(37)	176(80))
Manufacturing Management	2(0)	3(0)	3(0)	52(4)	86(7)	77(12)	223(23)
Quality Management			2(2)	34(6)	65(15)	70(30)	171(53)
<b>PG Diploma</b>							
Finance					1(0)	11(5)	12(5)
Manufacturing Practice						72(4)	72(4)
<b>Sub-Total</b>	<b>86(28)</b>	<b>832(457)</b>	<b>2367(1262)</b>	<b>3710(1558)</b>	<b>3866(945)</b>	<b>2745(548)</b>	<b>13606(4798)</b>
<b>Total Off Campus</b>	<b>135(29)</b>	<b>931(465)</b>	<b>3601(1428)</b>	<b>4763(1686)</b>	<b>4759(1004)</b>	<b>3243(587)</b>	<b>17432(5199)</b>

**Note:** The numbers in brackets indicate number of female students.

**LIST OF ORGANIZATIONS WHO HAVE SPONSORED THEIR EMPLOYEES FOR WORK INTEGRATED LEARNING PROGRAMMES OF BITS**

S.NO.	NAME	LOCATION
1.	24/7.AI, INC.	BANGALORE
2.	309 FIELD HOSPITAL,INDIAN ARMY(ARMY MEDICAL CORPS)	MEERUT
3.	3B SEMICONDUCTORS PVT. LTD.	MUMBAI
4.	3D PLM SOFTWARE SOLUTIONS LTD.	PUNE
5.	A O SMITH INDIA WATER PRODUCTS PVT LTD	BANGALORE
6.	A.P. TRANSPORT DEPARTMENT	RAJAHMUNDRY
7.	A3LOGICS	JAIPUR
8.	AAKRUTI SOFTWARE SOLUTIONS PVT. LTD.	HYDERABAD
9.	AARVI ENCON	SAUDI ARABIA
10.	AASI MULTISPECIALITY HOSPITAL	RAMANATHAPURAM
11.	ABB GLOBAL INDUSTRIES AND SERVICES PRIVATE LTD.	ABU DHABI
12.	ABB GLOBAL INDUSTRIES AND SERVICES PRIVATE LTD.	BANGALORE
13.	ABB GLOBAL INDUSTRIES AND SERVICES PRIVATE LTD.	BARODA
14.	ABB GLOBAL INDUSTRIES AND SERVICES PRIVATE LTD.	CHENNAI
15.	ABB GLOBAL INDUSTRIES AND SERVICES PRIVATE LTD.	NASHIK
16.	ABB GLOBAL INDUSTRIES AND SERVICES PRIVATE LTD.	VADODARA
17.	ABBNEY SOFTWARE TECHNOLOGIES	HYDERABAD
18.	ABBOTT HEALTHCARE PVT LTD	GUJRAT
19.	ABCO INDIA	CHENNAI
20.	ABHINAV IT SOLUTIONS PVT LTD	PUNE
21.	ABOVE SOLUTIONS PVT LTD	BANGALORE
22.	ABP PVT. LTD.	KOLKATA
23.	ABS GROUP INC.	ABU DHABI
24.	ABS GROUP INC.	MUMBAI
25.	ABS GROUP INC.	UAE
26.	ABU DHABI GAS INDUSTRIES LTD (GASCO)	ABU DHABI
27.	ABU DHABI OIL REFINERY COMPANY	ABU DHABI
28.	ABU DHABI POLYMERS LTD (BOROUGE) (RUWAIS IND	ABU DHABI
29.	ABU DHABI REFINERY DIVISION (TAKREER)	ABU DHABI
30.	ABU DHABI SHIP BUILDING	ABU DHABI
31.	ABUDHABI COMPANY FOR ONSHORE PETROLEUM O	ABU DHABI
32.	ABUDHABI NATIONAL OIL COMPANY (ADNOC)	ABU DHABI
33.	ABUDHABI OIL REFINING COMPANY	ABU DHABI
34.	ACADEMY FOR PERFORMANCE & EXCELLENCE	FARIDABAD
35.	ACC LTD.	KARNATAKA
36.	ACC LTD.	KYMORE
37.	ACC LTD.	PUNE
38.	ACC LTD.	THANE (MAHARASHTRA)
39.	ACCENTURE SERVICES PVT LTD	BANGALORE
40.	ACCENTURE SERVICES PVT LTD	CHENNAI
41.	ACCENTURE SERVICES PVT LTD	DELHI
42.	ACCENTURE SERVICES PVT LTD	GURGAON
43.	ACCENTURE SERVICES PVT LTD	HYDERABAD
44.	ACCENTURE SERVICES PVT LTD	KOLKATA
45.	ACCENTURE SERVICES PVT LTD	MUMBAI
46.	ACCENTURE SERVICES PVT LTD	PUNE
47.	ACCENTURE SERVICES PVT LTD	WHITEFIELD
48.	ACCESS-CADD	NASHIK
49.	ACCION LABS	HYDERABAD
50.	ACCORD GLOBAL TECHNOLOGY SOLUTIONS PVT LTD	BANGALORE
51.	ACCRETE HITECH SOLUTIONS PVT. LTD.	BANGALORE

S.NO.	NAME	LOCATION
52.	ACCU PERICISION	BANGALORE
53.	ACE ENGINEERING ACADEMY	HYDERABAD
54.	ACG ASSOCIATED CAPSULES PRIVATE LTD.	MUMBAI
55.	A-CHECK GLOBAL	CHENNAI
56.	ACI WORLDWIDE	PUNE
57.	ACIDAES SOLUTIONS PVT LTD	MUMBAI
58.	ACME CLEANTECH SOLUTION PVT. LTD.	HYDERABAD
59.	ACME INTERNATIONAL GEN. TRADING & CONTRA	KUWAIT
60.	ACTEMIUM INDIA PROCESS SOLUTIONS (VAES)	BANGALORE
61.	ACTIANCE INDIA PRIVATE LTD.	BANGALORE
62.	ACTIFIO TECHNOLOGIES (I) PVT LTD.	HYDERABAD
63.	ACTUALIZE CONSULTING ENGINEERS (INDIA) PVT. LTD.	PUNE
64.	ADANI POWER MAHARASHTRA LTD.	MAHARASHTRA
65.	ADANI POWER MAHARASHTRA LTD.	TIRORA
66.	ADCO ABU DHABI	ABU DHABI
67.	ADCO ABU DHABI	UAE
68.	ADDONIX TECHNOLOGIES PVT LTD	MUMBAI
69.	ADECCO INDIA PRIVATE LTD.	BADDI
70.	ADECCO INDIA PRIVATE LTD.	BANGALORE
71.	ADECCO INDIA PRIVATE LTD.	CHENNAI
72.	ADEPT CHIP SERVICES PVT.LTD	BANGALORE
73.	ADEPTWORK SOFTWARE SOLUTIONS LLP	SURAT
74.	ADF DATA SCIENCE PVT LTD	CHENNAI
75.	ADIENT INDIA PVT. LTD.	CHENNAI
76.	ADIENT INDIA PVT. LTD.	PERUNGUDI,CHENNAI
77.	ADIENT INDIA PVT. LTD.	PUNE
78.	ADITYA BIRLA FASHION AND RETAIL LTD.	BANGALORE
79.	ADITYA BIRLA GROUP	ARIYALUR
80.	ADITYA BIRLA GROUP	BHARUCH
81.	ADITYA BIRLA GROUP	BHUJ
82.	ADITYA BIRLA GROUP	CHITTORGARH
83.	ADITYA BIRLA GROUP	DAVENGERA
84.	ADITYA BIRLA GROUP	GUJARAT
85.	ADITYA BIRLA GROUP	GUJRAT
86.	ADITYA BIRLA GROUP	HIRMI
87.	ADITYA BIRLA GROUP	KALABURGI
88.	ADITYA BIRLA GROUP	KARNATAKA
89.	ADITYA BIRLA GROUP	KHARACH
90.	ADITYA BIRLA GROUP	KOTPUTLI
91.	ADITYA BIRLA GROUP	NAGDA
92.	ADITYA BIRLA GROUP	RAWAN
93.	ADITYA BIRLA INSULATORS	HALOL
94.	ADITYA BIRLA MANAGEMENT CORPORATION PVT. LTD.	MUMBAI
95.	ADITYA BIRLA RETAIL LTD.	MUMBAI
96.	ADITYA ENVIRONMENTAL SERVICES PVT LTD	MUMBAI
97.	ADIUVO DIAGNOSTICS PVT LTD	CHENNAI
98.	ADLER MEDIEQUIP PVT.LTD	PUNE
99.	ADNOC	ABU DHABI
100.	ADNOC DISTRIBUTION	ABU DHABI
101.	ADNOC LINDE INDUSTRIAL GASES(ELIXIER)	UAE
102.	ADNOC OFFSHORE	NALUMAVADI
103.	ADNOC REFINING	ABU DHABI
104.	ADNOC REFINING	DUBAI
105.	ADNOC REFINING	UAE
106.	ADOBE SYSTEMS INDIA PVT LTD	BANGALORE
107.	ADOBE SYSTEMS INDIA PVT LTD	NOIDA
108.	ADOR WELDING LTD.	PUNE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
109.	ADOR WELDING LTD	PUNE
110.	ADP INDIA PVT LTD	HYDERABAD
111.	ADP INDIA PVT LTD	PUNE
112.	ADROIT FACILITY MANAGEMENT	DUBAI
113.	ADS GLOBAL KNOWLEDGE ACADEMY PRIVATE LIM	DELHI
114.	ADTRAN NETWORKS INDIA PRIVATE LTD.	BANGALORE
115.	ADVANCED MICRO DEVICES	HYDERABAD
116.	ADVANCED TRAINING INSTITUTE	HYDERABAD
117.	ADVANTEK FUEL SYSTEMS PVT. LTD	PUNE
118.	ADVENT TOOLTECH PVT. LTD.	PUNE
119.	AE ARMA ELEKTROPANC ELECTROMECHANICAL LL	DUBAI
120.	AECOM INDIA PVT LTD	BANGALORE
121.	AECOM/URS,BAHRAIN	BAHRAIN
122.	AEGIS GLOBAL	BANGALORE
123.	AEQUS PRIVATE LTD.	BELAGAVI
124.	AERIALROOTS TECHNOLOGIES	PUDUCHERRY
125.	AERIS COMMUNICATION INDIA PVT LTD	NOIDA
126.	AEROEURO ENGINEERING INDIA PVT LTD	BANGALORE
127.	AERZEN MACHINES INDIA PVT LTD	VADODARA
128.	AES INDIA	NOIDA
129.	AESSEAL INDIA PVT LTD	PUNE
130.	AESSEAL MIDDLE EAST LLC	JAFZA-SOUTH
131.	AFCH FORTIS ESCORTS HEART INSTITUTE, KHULNA,BD	BANGLADESH
132.	AFFLUENT GLOBAL SERVICES	HYDERABAD
133.	AFWWA HOMOEOPATHIC CLINIC	HYDERABAD
134.	AGFA HEALTHCARE SOLUTIONS	DUBAI
135.	AGGREKO LTD	DUBAI
136.	AGHARKAR RESEARCH INSTITUTE	PUNE
137.	AGILENT TECHNOLOGIES	DELHI
138.	AGILENT TECHNOLOGIES	GURGAON
139.	AGNICE FIRE PROTECTION PVT LTD	CHENNAI
140.	AGRAWAL GROUP OF COMPANIES	GOA
141.	AGRISOL (INDIA) PVT LTD	HYDERABAD
142.	AGS TRANSACT TECHNOLOGIES LTD	MUMBAI
143.	AHEADRACE SOFTWARE DEVELOPMENT SERVICES	HYDERABAD
144.	AIIMSUDR	UDAIPUR
145.	AIR INDIA LTD	BANGALORE
146.	AIR INDIA LTD	CHENNAI
147.	AIR TREATMENT ENGINEERING PRIVATE LIMITE	KOLKATA
148.	AIR WORLDWIDE D.B.A VERISK ANALYTICS	HYDERABAD
149.	AIRBUS GROUP	BANGALORE
150.	AIRCEL LTD.	CHENNAI
151.	AIRCEL LTD.	DELHI
152.	AIRFRAME AERODESIGNS PVT LTD	BANGALORE
153.	AIRPORTS AUTHORITY OF INDIA	CHENNAI
154.	AIRPORTS AUTHORITY OF INDIA	COCHIN
155.	AIRPORTS AUTHORITY OF INDIA	GOA
156.	AIRPORTS AUTHORITY OF INDIA	KOLKATA
157.	AISECT COMPUTER EDUCATION CENTRE	PILANI
158.	AISQUARE TECHNOLOGIES PVT. LTD.	HYDERABAD
159.	AIVARG TECHNOLOGIES OPC PVT LTD	CHENNAI
160.	AJ DEVTECH	CHANDIGARH
161.	AKAL INFO SYSTEMS	DELHI
162.	AKAMAI TECHNOLOGIES	BANGALORE
163.	AKQA MEDIA INDIA PVT. LTD.	GURGAON
164.	AKSA SOFTWARE SOLUTIONS PRIVATE LTD.	SRINAGAR
165.	AKTREA SOLUTIONS INDIA PVT LTD	CHENNAI

S.NO.	NAME	LOCATION
166.	AKZONOBEL INDIA LTD.	MUMBAI
167.	AL TAJIR GLASS INDUSTRIES	DUBAI
168.	AL ALAMIAH TECHNOLOGY GROUP	KUWAIT
169.	AL ANWAR CERAMIC TILES CO SAOG,NIZWA,OMA	OMAN
170.	AL ARABIA TSCD JUMA AL MAJID GROUP	DUBAI
171.	AL DHARIS SPECIALIZED PIPES FITTINGS	DUBAI
172.	AL FARAA GROUP	ABU DHABI
173.	AL GHURAIR IRON & STEEL LLC	ABU DHABI
174.	AL HAJIRY TRADING LLC,OMAN	OMAN
175.	AL HASHAR & CO LLC	OMAN
176.	AL HODERiyAT GEN CONTRACTING	ABU DHABI
177.	AL JABER TRANSPORT & GENERAL CONTRACTING	ABU DHABI
178.	AL KHALEEJ SUGAR CO LLC	DUBAI
179.	AL MAHASIN ELECTRO MECH CONT COMP,ABUD	SHARJAH
180.	AL NAKHEEL ELECTRONICS - DUBAI,UAE	DUBAI
181.	AL QABAS EMPLOYMENT	ABU DHABI
182.	AL SABAH ELECTROMECHANICAL INTERNATIONAL	DUBAI
183.	AL SHIRAWI ELECTRICAL & MECHANICAL ENGG	DUBAI
184.	AL TAMIMI ENGINEERING SERVICES LLC DUBAI	DUBAI
185.	AL YAMAMA CO. FOR TRADING & CONTRACTING	RIYADH SAUDI ARABIA
186.	ALBA POWER PRIVATE LTD.	SRINAGAR
187.	ALBAYAAN EDUCATIONAL COMPLEX	QATAR
188.	ALCATEL DEVELOPMENT INDIA	CHENNAI
189.	ALCATEL LUCENT PVT LTD (NOKIA CORPORATION)	BANGALORE
190.	ALDERLEY FZE	DUBAI
191.	ALEMBIC PHARMACEUTICALS LTD.	VADODARA
192.	ALETHE LABS INDIA PVT LTD	NOIDA
193.	ALFANAR ELECTRICAL SYSTEMS	RIYADH SAUDI ARABIA
194.	ALFARDAN GROUP	QATAR
195.	ALGOSCALE TECHNOLOGIES PRIVATE LTD.	NOIDA
196.	ALGO'TECH INDIA	NOIDA
197.	ALKRAFT THERMOTECNOLOGIES PRIVATE LIMIT	CHENNAI
198.	ALLAHABAD BANK	ALLAHABAD
199.	ALLEGION INDIA PRIVATE LTD.	BANGALORE
200.	ALLEGIS GROUP DEPUTED TO FORD TECHNOLOGY	CHENNAI
201.	ALLIANCE TIRE GROUP	TIRUNELVELI
202.	ALLIANZ TECHNOLOGY	THIRUVANANTHAPURAM
203.	ALLISON TRANSMISSION INDIA PVT LTD	CHENNAI
204.	ALLSCRIPTS	PUNE
205.	ALLSCRIPTS (INDIA) LLP	PUNE
206.	ALLSCRIPTS (INDIA) PRIVATE LTD.	PUNE
207.	ALLSCRIPTS INDIA PVT LTD	BANGALORE
208.	ALLSTATE INDIA	BANGALORE
209.	ALMARAI COMPANY	RIYADH SAUDI ARABIA
210.	ALPHA ICT LLP	PUNE
211.	ALSTOM	AGRA
212.	ALSTOM	BANGALORE
213.	ALSTOM BHARAT FORGE POWER PRIVATE LIMITE	SANAND
214.	ALSTOM SYSTEM INDIA PVT. LTD	AGRA
215.	ALSTOM TRANSPORT INDIA LTD.	BANGALORE
216.	ALSTOM TRANSPORT INDIA LTD.	COIMBATORE
217.	ALSTOM TRANSPORT INDIA LTD.	DELHI
218.	ALSTOM TRANSPORT INDIA LTD.	PRAYAGRAJ
219.	ALTAIR ENGINEERING INDIA PVT. LTD	BANGALORE
220.	ALTAIR ENGINEERING INDIA PVT. LTD	PUNE
221.	AL-TASNIM ENTERPRISES LLC	MUSCAT, OMAN
222.	ALTEN CALSOFTLABS	BANGALORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
223.	ALTIMETRIK INDIA PVT LTD	BANGALORE
224.	ALTIMETRIK INDIA PVT LTD	CHENNAI
225.	ALTIMETRIK INDIA PVT LTD	HYDERABAD
226.	ALTRAN TECHNOLOGIES	BANGALORE
227.	ALTRAN TECHNOLOGIES	CHENNAI
228.	ALTRAN TECHNOLOGIES INDIA PVT LTD	BANGALORE
229.	ALTRAN TECHNOLOGIES INDIA PVT LTD, BANGALORE	BANGALORE
230.	ALUMINIUM BAHRAIN	BAHRAIN
231.	AMADEUS LABS	BANGALORE
232.	AMANA INDUSTRIES	SHARJAH
233.	AMARACORE PRIVATE LTD.	BANGALORE
234.	AMAZON DEVELOPMENT CENTER INDIA PVT. LTD.	BANGALORE
235.	AMAZON DEVELOPMENT CENTER INDIA PVT. LTD.	CHENNAI
236.	AMAZON DEVELOPMENT CENTER INDIA PVT. LTD.	GURGAON
237.	AMAZON DEVELOPMENT CENTER INDIA PVT. LTD.	HYDERABAD
238.	AMBUJA CEMENTS LTD.	JAIPUR
239.	AMBUJA CEMENTS LTD	GURGAON
240.	AMD	HYDERABAD
241.	AMD INDIA PVT LTD	BANGALORE
242.	AMD INDIA PVT. LTD.	HYDERABAD
243.	AMD R & D CENTER, HYDERABAD	HYDERABAD
244.	AMDOCS	GURGAON
245.	AMDOCS	PUNE
246.	AMEC BLACKCAT	DOHA
247.	AMEC FOSTER WHEELER ASIA PACIFIC PTE. LTD.	SINGAPORE
248.	AMEC FOSTER WHEELER INDIA PVT LTD	KOLKATA
249.	AMERICAN EXPRESS	BANGALORE
250.	AMERICAN EXPRESS	GURGAON
251.	AMERICAN HOSPITAL DUBAI	DUBAI
252.	AMERIPRISE INDIA PRIVATE LTD.	GURGAON
253.	AMETEK INSTRUMENTS	BANGALORE
254.	AMEYA PECISION ENGINEERS PVT LTD	PUNE
255.	AMGEN	SINGAPORE
256.	AMICORP MANAGEMENT INDIA PVT LTD., (	BANGALORE
257.	AMITECH INDIA PVT LTD	GUJARAT
258.	AMPHENOL FCI	COCHIN
259.	AMPLEX EMIRATES LLC	ABU DHABI
260.	AMPOOL INDIA PVT LTD	PUNE
261.	AMRI HOSPITALS BHUBANESWAR	BHUBANESWAR
262.	AMRITA CENTRE FOR CYBER SECURITY	KERALA
263.	AMRITA CENTRE FOR CYBER SECURITY	KOLLAM
264.	AMRITA VISHWAVIDYAPEETHAM	KERALA
265.	AMW AUTO COMPONENTS LTD	BHUJ
266.	ANALOG DEVICES	BANGALORE
267.	ANALYZER CAE SOLUTIONS PVT.LTD.	PUNE
268.	ANAND NVH PVT LTD	DELHI
269.	ANCHOR ELECTRICALS PRIVATE LTD.	DAMAN
270.	ANCHOR ELECTRICALS PRIVATE LTD.	THANE
271.	ANDREW TELECOMMUNICATION INDIA PVT LTD (COMMSCOPE)	GOA
272.	ANERGY LTD	CHENNAI
273.	ANNORA PHARMA	HYDERABAD
274.	ANRITSU INDIA PRIVATE LTD.	HYDERABAD
275.	ANS STEEL TUBES LTD.	FARIDABAD
276.	ANSALDO STS (A) A HITACHI GROUP COMPANY	BANGALORE
277.	ANSALDO STS AUSTRALIA PTY LTD	PERTH AUSTRALIA
278.	ANSYS SOFTWARE PVT. LTD.	BANGALORE
279.	ANSYS SOFTWARE PVT. LTD.	PUNE

S.NO.	NAME	LOCATION
280.	ANVESHA COMMUNITY DEVELOPMENT	BANGALORE
281.	ANZ BANKING OPERATIONS AND TECHNOLOGY PVT LTD	BANGALORE
282.	ANZ OPERATIONS AND TECHNOLOGY PVT LTD	BANGALORE
283.	ANZ SERVICES INDIA	BANGALORE
284.	AON SERVICES PVT. LTD.	BANGALORE
285.	AON SERVICES PVT. LTD.	GURGAON
286.	AON SERVICES PVT. LTD.	NOIDA
287.	APERTA LTD	COIMBATORE
288.	APMOSYS TECHNOLOGIES PRIVATE LTD.	MUMBAI
289.	APOLLO HOSPITALS	ARAGONDA
290.	APOLLO HOSPITALS	CHENNAI
291.	APOLLO HOSPITALS	HYDERABAD
292.	APOLLO SPECIALITY HOSPITALS	NELLORE
293.	APOLLO TYRES LTD	CHENNAI
294.	APOLLO TYRES LTD	VADODARA
295.	APOLLO TYRES LTD.	CHENNAI
296.	APPICON IT PRIVATE LTD.	HYDERABAD
297.	APPIRIO, INDIA	JAIPUR
298.	APPLIED MATERIALS	BANGALORE
299.	APPLIED MATERIALS	CHENNAI
300.	APPLIED MATERIALS INDIA PRIVATE LTD.	CHENNAI
301.	APPLIED MATERIALS INDIA PVT LTD	BANGALORE
302.	APPLIED MATERIALS PVT LTD	CHENNAI
303.	APPLIED RESEARCH & DEVELOPMENT LABORATOR	JAIPUR
304.	APPLUS VELOSI LLC	MUSCAT, OMAN
305.	APPLUS VELOSI OMAN L.L.C	MUSCAT, OMAN
306.	APPLUSVELOSI LLC	MUSCAT, OMAN
307.	APPSTER LLP	GURGAON
308.	APPSTER LLP	NOIDA
309.	APTEAN INDIA PVT LTD	BANGALORE
310.	APTIV	BANGALORE
311.	ARABIAN GULF SWITCHGEAR	SHARJAH
312.	ARC ELECTRICALS	CUDDALORE
313.	ARCADIS (FORMER HYDER CONSULTING INDIA P	HYDERABAD
314.	ARCADIS DESIGN & CONSULTANCY INC	DUBAI
315.	ARCADIS GEC INDIA	BANGALORE
316.	ARCESIUM INDIA PRIVATE LTD.	HYDERABAD
317.	ARDC, HAL(HINDUSTAN AERONAUTICS LTD.)	BANGALORE
318.	ARGUS EMBEDDED SYSTEMS	HYDERABAD
319.	ARIAL ENGINEERING SERVICES	HYDERABAD
320.	ARICENT	BANGALORE
321.	ARICENT	BHUBANESWAR
322.	ARICENT	CHENNAI
323.	ARICENT	GURGAON
324.	ARICENT	HYDERABAD
325.	ARICENT	NEW DELHI
326.	ARIES MARINE	SHARJAH
327.	ARISGLOBAL SOFTWARE PVT LTD	BANGALORE
328.	ARISHINA LIFE SCIENCES (P) LTD	KARNATAKA
329.	ARISTOCRAT TECHNOLOGIES	NOIDA
330.	ARKIPLAN ARCHITECTS CONSULTING ENGINEERS	DUBAI
331.	ARM	BANGALORE
332.	ARM	NOIDA
333.	ARMACELL INDIA PRIVATE LTD.	AGRA
334.	ARMED FORCES	GUWAHATI
335.	ARMED FORCES	MUMBAI
336.	ARMED FORCES	NOIDA

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
337.	ARMED FORCES	PUNE
338.	ARMOR INDIA CODING AND IMAGING SUPPLIES PVT LTD	BANGALORE
339.	ARPAN INFRASOLUTION PVT. LTD.	LOHARDAGA
340.	ARRAYSTORM LIGHTING PVT LTD	BANGALORE
341.	ARRIS GROUP INDIA PRIVATE LTD.	BANGALORE
342.	ARRK SOLUTIONS PVT LMTD	MUMBAI
343.	ARTEMIS HOSPITAL	NEW DELHI
344.	ARTEMIS HOSPITALS, GURGAON	NEW DELHI
345.	ARUBA NETWORKS INDIA PVT LTD	BANGALORE
346.	ARUNA ALLOY STEELS PVT LTD	MADURAI
347.	ARYAKA NETWORKS	BANGALORE
348.	ARYAVRAT INFOTECH PVT LTD	JAIPUR
349.	ASAHI INDIA GLASS LTD.	GURGAON
350.	ASAP BERHAD	KUALA LUMPUR
351.	ASAS HUMAN RSOURCES	ABU DHABI
352.	ASERGIS TELECOM SERVICES PVT. LTD.	GURGAON
353.	ASHOK LEYLAND	HOSUR, TAMILNADU
354.	ASHOK LEYLAND LTD.	ALWAR
355.	ASHOK LEYLAND LTD.	BANGALORE
356.	ASHOK LEYLAND LTD.	CHENNAI
357.	ASHOK LEYLAND LTD.	DELHI
358.	ASHOK LEYLAND LTD.	DUBAI
359.	ASHOK LEYLAND LTD.	FARIDABAD
360.	ASHOK LEYLAND LTD.	HOSUR, TAMILNADU
361.	ASHOK LEYLAND LTD.	JAMSHEDPUR
362.	ASHOK LEYLAND LTD.	SILIGURI
363.	ASHOK LEYLAND LTD.	VELLIVYOAL CHAVADI
364.	ASHTECH TOOLING & STAMPING PVT.LTD	PUNE
365.	ASIA AUTOMATION PVT. LTD.	PUNE
366.	ASIAAN METALS & ALUMINIUM CASTING PVT LTD;	BANGALORE
367.	ASIAAN METALS AND ALUMINIUM CASTING PVT.LTD	BANGALORE
368.	ASIAN INSTITUTE OF MEDICAL SCIENCES,FAR	FARIDABAD
369.	ASIANPAINTS LTD	CHENNAI
370.	ASK AUTOMOTIVE PVT LTD	GURGAON
371.	ASM ENTERPRISE INDIA PVT. LTD.	HYDERABAD
372.	ASM TECHNOLOGIES PVT LTD	BANGALORE
373.	ASPIRE SYSTEMS INDIA PVT LTD	CHENNAI
374.	ASPIRING MINDS	GURGAON
375.	ASSAM ELECTRONICS DEVELOPMENT CORPORATION LTD.	ASSAM
376.	ASTA INDIA PVT LTD	VADODARA
377.	ASTECHNOSOFT PVT. LTD.	PUNE
378.	ASTER AADHAR HOSPITAL,KOLHAPUR	MUMBAI
379.	ASTRAZENECA	CHENNAI
380.	ASTRAZENECA INDIA PRIVATE LTD.	CHENNAI
381.	AT&S INDIA PVT LTD	NANJANGUD
382.	AT&T COMMUNICATIONS SERVICES PVT LTD	BANGALORE
383.	AT&T GLOBAL BUSINESS SERVICES INDI PVT.	HYDERABAD
384.	ATC TELECOM INFRASTRUCTURE PVT. LTD.	GURGAON
385.	ATC TIRES PRIVATE LTD.	TAMILNADU
386.	ATC TIRES PRIVATE LTD.	TIRUNELVELI
387.	ATECH SOLUTIONS PVT LTD	BANGALORE
388.	ATHARVARAJ HATCHERIES	NAGPUR
389.	ATHENA DRUG DELIVERY SOLUTIONS	MUMBAI
390.	ATHENA HEALTH TECHNOLOGIES PVT LTD	CHENNAI
391.	ATHENTA TECHNOLOGIES PRIVATE LTD.	NOIDA
392.	ATLAB	DUBAI
393.	ATLANTIS LAB PVT.LTD.	PUNE



S.NO.	NAME	LOCATION
394.	ATLAS COPCO INDIA LTD.	BANGALORE
395.	ATLAS COPCO INDIA LTD.	PUNE
396.	ATLAS ELEKTRONIK INDIA PVT LTD	MUMBAI
397.	ATLAS HEALTHCARE SOFTWARE INDIA PVT. LTD	KOLKATA
398.	ATMECS TECHNOLOGIES PRIVATE LTD.	HYDERABAD
399.	ATOLL SOLUTIONS PVT LTD	BANGALORE
400.	ATOS INDIA PRIVATE LTD.	GURGAON
401.	ATOS INDIA PRIVATE LTD.	KOLKATA
402.	ATOS INDIA PRIVATE LTD.	POLAND
403.	ATOS INDIA PRIVATE LTD.	PUNE
404.	ATOTECH DEVELOPMENT CENTRE PRIVATE LIMIT	BANGALORE
405.	ATRIA CONVERGENCE TECHNOLOGIES	BANGALORE
406.	ATTRA INFOTECH PVT LTD	BANGALORE
407.	ATTUNE INFOCOM PVT. LTD.	AHMEDABAD
408.	ATTUNE INFOCOM PVT. LTD.	BANGALORE
409.	AUDIENCE SCIENCE INDIA PVT LTD	PUNE
410.	AURIGO SOFTWARE	BANGALORE
411.	AURIONPRO SOLUTIONS LTD.	PUNE
412.	AUROBINDO PHARMA LTD.	HYDERABAD
413.	AUROBINDO PHARMA LTD.	VISAKHAPATNAM
414.	AUTO IGNITION LTD.	MUMBAI
415.	AUTOCOP INDIA PVT LDT	PUNE
416.	AUTODESK INDIA PVT LTD	BANGALORE
417.	AUTOLIV INDIA PVT LTD	BANGALORE
418.	AUTOMATION SYSTEMS	HYDERABAD
419.	AUTOMOTIVE ROBOTICS INDIA PVT LTD	CHENNAI
420.	AUTOMOTIVE ROBOTICS INDIA PVT LTD	HYDERABAD
421.	AV LIGHT AUTOMOTIVE LTD.	GURGAON
422.	AVALON DATA SYSTEMS LLC	ABU DHABI
423.	AVANKIA LTD	BANGALORE
424.	AVAYA INDIA PRIVATE LTD.	PUNE
425.	AVENCH SYSTEM PVT LTD	BANGALORE
426.	AVEVA SOLUTIONS LLP	HYDERABAD
427.	AVL INDIA PVT. LTD	BANGALORE
428.	AVL INDIA PVT. LTD	GURGAON
429.	AVTEC LTD	HOSUR, TAMILNADU
430.	AWALGULF MANUFACTURING CO B.S.C (C)	MAVELIKARA
431.	AWNICS TECHNOLOGIES PRIVATE LTD.	BANGALORE
432.	AXIOM ENERGY CONVERSION LTD.	HYDERABAD
433.	AXIS BANK	DELHI
434.	AXIS CADES	BANGALORE
435.	AXIS CADES	HYDERABAD
436.	AXIS ELECTRICAL COMPONENTS INDIA PVT. LTD	PUNE
437.	AYT INTERNATIONAL L.L.C	DUBAI
438.	AZCOM INFOSOLUTIONS INDIA PVT. LTD.	GURGAON
439.	AZUGATELEMATICS PVT. LTD.	BANGALORE
440.	B M C SOFTWARE LTD.	PUNE
441.	B2B INFOTECH MEDIA	NEW DELHI
442.	BA CONTINUUM (I) PVT. LTD.	CHENNAI
443.	BA CONTINUUM (I) PVT. LTD.	COIMBATORE
444.	BA CONTINUUM (I) PVT. LTD.	DELHI
445.	BA CONTINUUM (I) PVT. LTD.	HYDERABAD
446.	BA CONTINUUM (I) PVT. LTD.	THANE
447.	BAHWAN CYBERTEK PVT. LTD.	CHENNAI
448.	BAHWAN ENGINEERING CO. LLC	DUBAI
449.	BAHWAN TECHNICAL CONTRACTINGCO.LLC	AL QUOZ
450.	BAJAJ AUTO LTD.	AURANGABAD

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
451.	BAJAJ AUTO LTD.	NASHIK
452.	BAJAJ AUTO LTD.	PUNE
453.	BAJAJ AUTO LTD.	RUDRAPUR
454.	BAJAJ ELECTRICALS LTD.	MUMBAI
455.	BAKER HUGHES GHANA LTD.	MUMBAI
456.	BAKER HUGHES INC	DUBAI
457.	BAKER HUGHES SINGAPORE PTE.	RAMANATHAPURAM
458.	BALAJI SOFTWARE	THANE
459.	BALL AEROCAN (I) PVT. LTD.	AHMEDABAD
460.	BAM HIGGS & HILL LLC	DUBAI
461.	BANK OF AMERICA	GUNTUR
462.	BANK OF AMERICA	HYDERABAD
463.	BANK OF AMERICA	THANE
464.	BARALA HOSPITAL	JHUNJHUNU
465.	BARCLAYS TECHNOLOGY CENTRE (I) PVT. LTD.	AGRA
466.	BARCLAYS TECHNOLOGY CENTRE (I) PVT. LTD.	PUNE
467.	BARCLAYS TECHNOLOGY CENTRE (I) PVT. LTD.	VISAKHA PATNAM
468.	BARCO ELECTRONICS SYSTEMS PVT. LTD.	GHAZIABAD
469.	BARCO ELECTRONICS SYSTEMS PVT. LTD.	MORENA
470.	BARTEC MIDDLE EAST LLC	KANCHEEPURAM
471.	BASE CONTROL TECH FZC	SHARJAH
472.	BASF (I) LTD.	MANGALORE
473.	BDS STEEL DETAILERS (AUSTRALIA) PTY LTD.	CHENNAI
474.	BE ENGINEERING SERVICE (I) PVT. LTD.	HYDERABAD
475.	BECHTEL (I) PVT. LTD.	KURNOOL
476.	BECHTEL (I) PVT. LTD.	NOIDA
477.	BEEINFOTECH	COIMBATORE
478.	BELIEVERS CHURCH MEDICAL COLLEGE HOSPITAL	CALICUT
479.	BELIEVERS CHURCH MEDICAL COLLEGE HOSPITAL	THIRUVALLA
480.	BELLS SOFT TECH	BANGALORE
481.	BELLSONICA AUTO COMPONENT (I) PVT. LTD.	GURGAON
482.	BEML LTD.	MYSORE
483.	BEML LTD.	NOIDA
484.	BENCHMARK IT SOLUTIONS	PUNE
485.	BENCHMARK IT SOLUTIONS (I) PVT. LTD.	SATARA
486.	BENCHMARK TECHNOLOGY	RIYADH
487.	BENNETT COLEMAN ANDCO.LTD.	PUNE
488.	BENTLEY SYSTEMS (I)	PUNE
489.	BENU INC	CHENNAI
490.	BERCO UNDERCARRIAGES (I) PVT. LTD.	HYDERABAD
491.	BERI UDYOG PVT. LTD.	SHAMLI
492.	BEST BUSINESS BUREAU	DUBAI
493.	BETHANY HOSPITAL	THANE
494.	BEUMER (I) LTD.	KHAJALI
495.	BG EXPLORATION & PRODUCTION (I) LTD.	DAHANU
496.	BG EXPLORATION & PRODUCTION (I) LTD.	MALAPPURAM
497.	BG EXPLORATION & PRODUCTION (I) LTD.	VISAKHAPATNAM
498.	BGR ENERGY SYSTEMS LTD.	CHENNAI
499.	BHAKTIVEDANTA INSTITUTE	MUMBAI
500.	BHARAT DYNAMICS LTD.	HYDERABAD
501.	BHARAT ELECTRONICS LTD.	BANGALORE
502.	BHARAT ELECTRONICS LTD.	CHENNAI
503.	BHARAT ELECTRONICS LTD.	GURGAON
504.	BHARAT ELECTRONICS LTD.	HYDERABAD
505.	BHARAT FORGE LTD.	BELONIA
506.	BHARAT FORGE LTD.	MUNDHAWA
507.	BHARAT FORGE LTD.	PUNE

S.NO.	NAME	LOCATION
508.	BHARAT FRITZ WERNER	BANGALORE
509.	BHARAT HEAVY ELECTRICALS LTD.	BANGALORE
510.	BHARAT HEAVY ELECTRICALS LTD.	CHENNAI
511.	BHARAT HEAVY ELECTRICALS LTD.	DELHI
512.	BHARAT HEAVY ELECTRICALS LTD.	THIRUCHIRAPALLI
513.	BHARAT HEAVY ELECTRICALS LTD.	TRICHY
514.	BHARAT PETROLEUM CORPORATION LTD.	ERNAKULAM
515.	BHARAT PETROLEUM CORPORATION LTD.	MADURAI
516.	BHARAT PETROLEUM CORPORATION LTD.	MANGALORE
517.	BHARAT PETROLEUM CORPORATION LTD.	MUMBAI
518.	BHARAT SANCHAR NIGAM LTD.	BHARUCH
519.	BHARAT SANCHAR NIGAM LTD.	GHAZIABAD
520.	BHARAT SANCHAR NIGAM LTD.	HYDERABAD
521.	BHARAT SANCHAR NIGAM LTD.	PUNE
522.	BHARTI AIRTEL LTD.	DELHI
523.	BHARTI INFRATEL LTD.	BHUBANESWAR
524.	BHAVANI INDUSTRIES	BANGALORE
525.	BHAVNA SOFTWARE (I) PVT. LTD.	DELHI
526.	BHAWAN ENGINEERINGCO.LLC	PUNE
527.	BHORUKA CHARITABLE TRSUT	JAIPUR
528.	BHTC (I) PVT. LTD.	PUNE
529.	BHUSHAN POWER AND STEEL LTD.	SAMBALP
530.	BIESSE MANUFACTURINGCO.PVT. LTD.	CUMBUM
531.	BIGTECH SOFTWARE PVT. LTD.	COIMBATORE
532.	BILAD OMAN LLC (SUHAIL BAHWAN GROUP)	SOHAR
533.	BILT GRAPHIC PAPER PRODUCTS LTD.	CHANDRAPUR
534.	BINLADIN CONTRACTING GROUP	PATHANAMTHITTA
535.	BIOCON LTD.	AGRA
536.	BIOCON LTD.	BANGALORE
537.	BIOCON LTD.	DEORIA
538.	BIOCON LTD.	HYDERABAD
539.	BIOLOGICAL E LTD.	HYDERABAD
540.	BIOLOGICAL E LTD.	SECUNDERABAD
541.	BIRLA CELLULOSIC	BHARUCH
542.	BIRLA COPPER	DAHEJ
543.	BIRLASOFT (I) LTD.	HYDERABAD
544.	BIRLASOFT (I) LTD.	NOIDA
545.	BIRLASOFT (I) LTD.	SECUNDERABAD
546.	BIRLASOFT INC	MADURAI
547.	BIRMINGHAM STEEL FABRICATION	ROLLA
548.	BISS PVT. LTD.	BANGALORE
549.	BITS-PILANI DUBAI CAMPUS	DUBAI
550.	BITS-PILANI HYDERABAD CAMPUS	HYDERABAD
551.	BITS-PILANI KK BIRLA GOA CAMPUS	GOA
552.	BITS-PILANI PILANI CAMPUS	ZUARINAGAR
553.	BIW SOFT PVT. LTD.	PILANI
554.	BIZIMPACT KNOWLEDGE SERVICES LLP	PILANI
555.	BK GULF LLC	ARUPPUKOTTAI
556.	BLACK KNIGHT (I) SOLUTIONS PVT. LTD.	HYDERABAD
557.	BLACK KNIGHT (I) SOLUTIONS PVT. LTD.	SECUNDERABAD
558.	BLACKCAT ENGINEERING AND CONSTRUCTION	KARAIKUDI VIA
559.	BLASTLINE (I) PVT. LTD.	ERNAKULAM
560.	BLEND COLOURS PVT. LTD.	CHENNAI
561.	BLOGIC INFOTECH PVT.LTD.	HYDERABAD
562.	BLOOM ENERGY CORPORATION	BANGALORE
563.	BLUE STAR LTD.	CHENNAI
564.	BLUE STAR LTD.	RAJAPALAYAM

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
565.	BLUE STAR LTD.	SRI GANGANAGAR
566.	BLUE STAR LTD.	UDUMALPET
567.	BLUE STAR LTD.	UDUPI
568.	BLUE STAR LTD.	ULHASNAGAR
569.	BMC SOFTWARE (I) PVT. LTD.	BANGALORE
570.	BMC SOFTWARE (I) PVT. LTD.	PUNE
571.	BOBST (I) PVT. LTD.	BHOPAL
572.	BOBST (I) PVT. LTD.	PUNE
573.	BOMBARDIER TRANSPORTATION (I) PVT. LTD.	VADOADARA
574.	BONATRANS (I) PVT. LTD.	AURANGABAD
575.	BORDER ROAD ORGANIZATION	BAHADURGARH
576.	BOROUGE(ABU DHABI POLYMERS CO.)	ABU DHABI
577.	BOS SHELF LLC	KOLLAM
578.	BOSCH LTD.	AHMEDABAD
579.	BOSCH LTD.	BANGALORE
580.	BOSCH LTD.	BIDADI
581.	BOSCH LTD.	CHENNAI
582.	BOSCH LTD.	COIMBATORE
583.	BOSCH LTD.	GOA
584.	BOSCH LTD.	JAIPUR
585.	BOSCH LTD.	JHUNJHUNU
586.	BOSCH LTD.	KOTTAYAM
587.	BOSCH LTD.	NASHIK
588.	BOSCH LTD.	NEW DELHI
589.	BOSCH LTD.	PUNE
590.	BOSCH LTD.	TIRUVANNAMALAI
591.	BOSTON ANALYTICS	NEW DELHI
592.	BOSTON SCIENTIFIC TECHNOLOGY & ENGINEERI	GURGAON
593.	BPCL	MUMBAI
594.	BRAKES (I) PVT. LTD.	CHENNAI
595.	BRAKES (I) PVT. LTD.	SHOLINGHUR
596.	BREACH CANDY HOSPITAL TRUST	MUMBAI
597.	BRIDGESTONE (I) PVT. LTD.	BARWAHA
598.	BRIDGESTONE (I) PVT. LTD.	MUMBAI
599.	BRIDGESTONE (I) PVT. LTD.	PUNE
600.	BRIJ LAL HOSPITAL	BAREILLY
601.	BRILLIANT BIO PHARMA PVT. LTD.	HYDERABAD
602.	BRILLIO TECHNOLOGIES PVT. LTD.	TRIVANDRUM
603.	BRITANNIA INDUSTRIES LTD.	RAJGARH
604.	BRITISH TELECOM	BANGALORE
605.	BRITISH TELECOM	DELHI
606.	BRITISH TELECOM	LUDHIANA
607.	BROADCOM (I) PVT. LTD.	HYDERABAD
608.	BROADCOM COMMUNICATIONS PVT. LTD.	BANGALORE
609.	BROADCOM COMMUNICATIONS PVT. LTD.	ROORKEE
610.	BROADCOM COMMUNICATIONS TECHNOLOGIES PVT. LTD.	BANGALORE
611.	BROADCOM COMMUNICATIONS TECHNOLOGIES PVT. LTD.	KAKINADA
612.	BROADCOM COMMUNICATIONS TECHNOLOGIES PVT. LTD.	TIRUVANNAMALAI
613.	BROADCOM LTD.	BANGALORE
614.	BROADCOM LTD.	HYDERABAD
615.	BROADCOM SEMICONDUCTORS PVT. LTD.	BANGALORE
616.	BROADGATE TECHNICAL SERVICES	CHENNAI
617.	BROADRIDGE FINANCIAL SOLUTIONS	SHANKARPALLY
618.	BROADRIDGE JAPAN LTD.	CHENNAI
619.	BROCADE COMMUNICATIONS SYSTEMS PVT. LTD.	BANGALORE
620.	BROCADE COMMUNICATIONS SYSTEMS PVT. LTD.	ERODE
621.	BROOKFIELD MULTIPLEX MEDGULF JV W.L.L	DOHA

S.NO.	NAME	LOCATION
622.	BROOKFIELD MULTIPLEX MEDGULF JV WLL.	THRISSUR
623.	BT E-SERV (I) PVT. LTD.	BANGALORE
624.	BTL (I) PVT. LTD.	BANGALORE
625.	BTL (I) PVT. LTD.	KOTTAYAM
626.	BTL (I) PVT. LTD.	PALAKKAD
627.	BUHLER (I) PVT. LTD.	BANGALORE
628.	BURCKHARDT COMPRESSION (I) PVT. LTD.	PUNE
629.	BUREAU OF INDIAN STANDARDS	NEW DELHI
630.	BUREAU VERITAS	DEIRA
631.	BUREAU VERITAS (I) PVT. LTD.	SURAT
632.	BUREAU VERITAS CERTIFICATION (I) PVT. LTD.	BANGALORE
633.	BUREAU VERITAS CERTIFICATION (I) PVT. LTD.	HOWRAH
634.	BUREAU VERITAS SPA ABU DHABI	KOTTAYAM
635.	BURKAN MUNITIONS SYSTEMS	THRISSUR
636.	BUSH ELECTRICALS AND ENGINEERS	THANE
637.	BVRAUTOMATION	BANGALORE
638.	C IENA (I) PVT. LTD.	GURGAON
639.	CA (I) TECHNOLOGIES PVT. LTD.	BANGALORE
640.	CA (I) TECHNOLOGIES PVT. LTD.	CHENNAI
641.	CA TECHNOLOGIES	HYDERABAD
642.	CA TECHNOLOGIES	KADAPA
643.	CADENCE DESIGN SYSTEMS (I) PVT. LTD.	BANGALORE
644.	CADENCE DESIGN SYSTEMS (I) PVT. LTD.	GHAZIABAD
645.	CADENCE DESIGN SYSTEMS (I) PVT. LTD.	NOIDA
646.	CADENCE DESIGN SYSTEMS (I) PVT. LTD.	PUNE
647.	CADENCE DESIGN SYSTEMS (I) PVT. LTD.	RANCHI
648.	CADILA PHARMACEUTICALS LTD.	VIKASPURI
649.	CADMAXX SOLUTIONS PVT. LTD.	BANGALORE
650.	CADSYS (I) LTD.	HYDERABAD
651.	CADVISION ENGINEERS PVT. LTD.	SECUNDERABAD
652.	CAIRN (I) LTD.	GURGAON
653.	CAIRN ENERGY (I) PTY LTD.	NEW DELHI
654.	CALCON INSTRUMENTATION & SALES LLC	ALUVA
655.	CALDERYS REFRACTORY (I) LTD.	SURAT
656.	CALITRON CALIBRATION LABORATORY	PUNE
657.	CALLHEALTH SERVICES PVT. LTD.	HYDERABAD
658.	CALSOFT INC.	PUNE
659.	CALSOFT LABS (I) PVT. LTD.	BANGALORE
660.	CALSOFT PVT. LTD.	SAHARSA
661.	CAMERON MANUFACTURING (I) PVT. LTD.	CHENNAI
662.	CAMERON MANUFACTURING (I) PVT. LTD.	COIMBATORE
663.	CAMERON MANUFACTURING (I) PVT. LTD.	TIRUPPUR
664.	CAMP SYSTEMS PVT. LTD.	HYDERABAD
665.	CANARA HSBC OBC LIFE INSURANCE	NEW DELHI
666.	CANARA HYDRAULICS PVT. LTD.	COIMBATORE
667.	CANNY INFRA	HYDERABAD
668.	CANON (I) PVT. LTD.	BANGALORE
669.	CANON (I) PVT. LTD.	DELHI
670.	CANVERA DIGITAL TECHNOLOGIES	BANGALORE
671.	CAP GEMINI CONSULTING LTD.	BANGALORE
672.	CAP GEMININ (I) PVT. LTD.	HYDERABAD
673.	CAPARO ENGINEERING (I) LTD.	CHENNAI
674.	CAPARO POWER LTD.	DELHI
675.	CAPGEMINI (I) PVT. LTD.	AHMED NAGAR
676.	CAPGEMINI (I) PVT. LTD.	BANGALORE
677.	CAPGEMINI (I) PVT. LTD.	CHENNAI
678.	CAPGEMINI (I) PVT. LTD.	COIMBATORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
679.	CAPGEMINI (I) PVT. LTD.	DELHI
680.	CAPGEMINI (I) PVT. LTD.	DHARMAPURI
681.	CAPGEMINI (I) PVT. LTD.	DOMBIVLI
682.	CAPGEMINI (I) PVT. LTD.	FARIDKOT
683.	CAPGEMINI (I) PVT. LTD.	GHAZIABAD
684.	CAPGEMINI (I) PVT. LTD.	GUWAHATI
685.	CAPGEMINI (I) PVT. LTD.	HYDERABAD
686.	CAPGEMINI (I) PVT. LTD.	JABALPUR
687.	CAPGEMINI (I) PVT. LTD.	KOLHAPUR
688.	CAPGEMINI (I) PVT. LTD.	KURNOOL
689.	CAPGEMINI (I) PVT. LTD.	MORADABAD
690.	CAPGEMINI (I) PVT. LTD.	MUMBAI
691.	CAPGEMINI (I) PVT. LTD.	MYSORE
692.	CAPGEMINI (I) PVT. LTD.	NAVI MUMBAI
693.	CAPGEMINI (I) PVT. LTD.	NELLORE
694.	CAPGEMINI (I) PVT. LTD.	PUNE
695.	CAPGEMINI (I) PVT. LTD.	THANE
696.	CAPGEMINI (I) PVT. LTD.	TRIVANDRUM
697.	CAPGEMINI (I) PVT. LTD.	VILLUPURAM
698.	CAPIOT SOFTWARE PVT. LTD.	MUMBAI
699.	CAPITA	PATHANAMTHITTA
700.	CAPITAL HYUNDAI	NEW DELHI
701.	CAPRICORN GROUP	PUNE
702.	CAPRICOT TECHNOLOGIES PVT. LTD.	HANSI
703.	CAPTRONIC SYSTEMS PVT. LTD.	BANGALORE
704.	CARBONYX ENGINEERING (I) PVT. LTD.	PANAJI
705.	CARBORUNDUM UNIVERSAL LTD.	BANGALORE
706.	CARBORUNDUM UNIVERSAL LTD.	CHENNAI
707.	CARBORUNDUM UNIVERSAL LTD.	HOSUR
708.	CARBORUNDUM UNIVERSAL LTD.	KANCHEEPURAM
709.	CARBORUNDUM UNIVERSAL LTD.	KOCHI
710.	CARBORUNDUM UNIVERSAL LTD.	KOLKATA
711.	CARBORUNDUM UNIVERSAL LTD.	KOLLAM
712.	CARBORUNDUM UNIVERSAL LTD.	MADURANTHAKAM
713.	CARBORUNDUM UNIVERSAL LTD.	ROORKEE
714.	CARBORUNDUM UNIVERSAL LTD.	THRISSUR
715.	CARBORUNDUM UNIVERSAL LTD.	VILLUPURAM
716.	CARESOFTE GLOBAL PVT. LTD.	COIMBATORE
717.	CARGILL (I) PVT. LTD.	GURGAON
718.	CARPE HEAT TRANSFER PVT. LTD.	MUMBAI
719.	CARRIER AIRCONDITIONING & REFRIGERATION	CHANDIGARH
720.	CARRIER AIRCONDITIONING & REFRIGERATION	KOLKATA
721.	CARTINI (I) LTD.	PONDA
722.	CATERPILLAR (I) PVT. LTD.	ARAKKONAM
723.	CATERPILLAR (I) PVT. LTD.	CHENNAI
724.	CATERPILLAR (I) PVT. LTD.	HYDERABAD
725.	CATERPILLAR (I) PVT. LTD.	SALEM
726.	CATERPILLAR (I) PVT. LTD.	VELLORE
727.	CATERPILLAR (I) PVT. LTD.	WARANGAL
728.	CAVIUM NETWORKS (I) PVT. LTD.	BANGALORE
729.	CAVIUM NETWORKS (I) PVT. LTD.	MUMBAI
730.	CDK GLOBAL (I) PVT. LTD.	JAMMU
731.	CDK GLOBAL (I) PVT. LTD.	PUNE
732.	CELSTREAM TECHNOLOGIES PVT. LTD.	BANGALORE
733.	CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING	BANGALORE
734.	CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING	HYDERABAD
735.	CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING	KOOTHATTUKULAM

S.NO.	NAME	LOCATION
736.	CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING	NOIDA
737.	CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING	PUNE
738.	CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING	TRIVANDRUM
739.	CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING	VELLORE
740.	CENTRE FOR DEVELOPMENT OF TELEMATICS	BANGALORE
741.	CENTRE OF EXCELLENCE IN WIRELESS TECHNOL	CHENNAI
742.	CENTUM ELECTRONICS LTD.	BANGALORE
743.	CENTUM RAKON (I) PVT. LTD.	BANGALORE
744.	CENTURY HOSPITAL	CHENGANNUR
745.	CENTURYLINK (I) PVT. LTD.	BANGALORE
746.	CENTURYLINK TECHNOLOGIES (I) PVT. LTD.	BANGALORE
747.	CERNER CORPORATION	BANGALORE
748.	CERNER HEALTHCARE SOLUTIONS PVT. LTD.	BANGALORE
749.	CGI INFORMATION SYESTEMS AND MANAGEMENT	PATHANAMTHITTA
750.	CGI INFORMATION SYSTEMS	HYDERABAD
751.	CGI PVT. LTD.	BANGALORE
752.	CGI TECHNOLOGIES AND SOLUTIONS INC	HYDERABAD
753.	CH2M HILL (I) PVT. LTD.	NOIDA
754.	CH2M HILL INTERNATIONAL	BANGALORE
755.	CHANNELPLAY LTD.	GURGAON
756.	CHARTER GLOBAL	PUNE
757.	CHECKTRONIX (I) PVT. LTD.	CHENNAI
758.	CHECKTRONIX (I) PVT. LTD.	DHARMAPURI
759.	CHECKTRONIX (I) PVT. LTD.	TIRUPUR
760.	CHER MEDICAL TECHNOLOGIES	MUMBAI
761.	CHETTINAD CEMENT CORPORATION LTD.	DINDUGUL
762.	CHETTINAD CEMENT CORPORATION LTD.	KARUR
763.	CHEVROLET SALES (I) PVT. LTD.	FARIDABAD
764.	CHEVRON ORONITE PTE LTD.	CHENNAI
765.	CHEVRON ORONITE PTE LTD.	JURONG WEST
766.	CHEVRON ORONITE PTE LTD.	SINGAPORE
767.	CHEVRON ORONITE PVT. LTD.	COCHIN
768.	CHIRAL BIOSCIENCES LTD.	HYDERABAD
769.	CHIYODA ALMANA	MADURAI
770.	CHOICE SOLUTIONS PVT. LTD.	KAMAREDDY
771.	CHRISTIAN MEDICAL COLLEGE	VELLORE
772.	CHRONOS RICHARDSON (I) PVT. LTD.	MATHURA
773.	CHRYSLER (I) AUTOMOTIVE PVT. LTD.	BHADRAK
774.	CIARPRO TECHNOLOGIES	CHENNAI
775.	CICSCO VIDEO TECHNOLOGY	BANGALORE
776.	CIENA (I) PVT. LTD.	DELHI
777.	CIENA (I) PVT. LTD.	GURGAON
778.	CIENA (I) PVT. LTD.	MATHURA
779.	CIENA (I) PVT. LTD.	NEW DELHI
780.	CIENA CORP	GURGAON
781.	CIGNETIX SYSTEMS	COCHIN
782.	CIPLA LTD.	MUMBAI
783.	CISCO SYSTEMS (I) PVT. LTD.	BANGALORE
784.	CISCO SYSTEMS (I) PVT. LTD.	CHENNAI
785.	CISCO SYSTEMS (I) PVT. LTD.	CHINCHWAD
786.	CISCO SYSTEMS (I) PVT. LTD.	GHAZIABAD
787.	CISCO SYSTEMS (I) PVT. LTD.	GURGAON
788.	CISCO SYSTEMS (I) PVT. LTD.	KOLKATA
789.	CISCO SYSTEMS (I) PVT. LTD.	MADURAI
790.	CISCO SYSTEMS (I) PVT. LTD.	NEW DELHI
791.	CISCO SYSTEMS (I) PVT. LTD.	PUNE
792.	CISCO VIDEO TECHNOLOGIES (I) PVT. LTD.	BANGALORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
793.	CITICORP SERVICES (I) PVT. LTD.	BHOPAL
794.	CITICORP SERVICES (I) PVT. LTD.	JAIPUR
795.	CITICORP SERVICES (I) PVT. LTD.	PUNE
796.	CITIXSYS TECHNOLOGIES (I) PVT. LTD.	BANGALORE
797.	CITIXSYS TECHNOLOGIES (I) PVT. LTD.	DEHRADUN
798.	CITIXSYS TECHNOLOGIES (I) PVT. LTD.	NEW DELHI
799.	CITIXSYS TECHNOLOGIES (I) PVT. LTD.	TONK
800.	CITIXSYS TECHNOLOGIES (I) PVT. LTD.	VIRUDHUNAGAR
801.	CKR CONSULTING ENGINEERS	DUBAI
802.	CLAIRVOYANT MOBILE SOLUTIONS	DELHI
803.	CLARICE TECHNOLOGIES PVT. LTD.	PUNE
804.	CLARION TECHNOLOGIES	BANGALORE
805.	CLCD LLC	HYDERABAD
806.	CLEAR-TRAIL	INDORE
807.	CLEVELAND BRIDGE & ENGINEERING MIDDLE EAST	DUBAI
808.	CLOUD VISION SYSTEMS PVT. LTD.	PUNE
809.	CMA SYSTEMS FZ LLC	DUBAI
810.	CMC LTD.	HYDERABAD
811.	CMC LTD.	THANE
812.	CMC LTD.	TIRUMALAGIRI
813.	CMI FPE LTD.	PANVEL
814.	CMI INDUSTRY METALS LTD.	NEW MUMBAI
815.	CMS INFOSYSTEM	NOIDA
816.	COASTAL GUJARAT POWER LTD.	KUTCH
817.	COASTAL GUJARAT POWER LTD.	MUNDRA
818.	COCHIN SHIPYARD LTD.	ERNAKULAM
819.	CODA GLOBAL	CHENNAI
820.	CODENOMICON SOFTWARE (I) PVT. LTD.	NEW DELHI
821.	COGNIZANT TECHNOLOGY SOLUTIONS	ACHALPUR
822.	COGNIZANT TECHNOLOGY SOLUTIONS	AGRA
823.	COGNIZANT TECHNOLOGY SOLUTIONS	AMALAPURAM
824.	COGNIZANT TECHNOLOGY SOLUTIONS	AMRAVATI
825.	COGNIZANT TECHNOLOGY SOLUTIONS	ARAKKONAM
826.	COGNIZANT TECHNOLOGY SOLUTIONS	BANGALORE
827.	COGNIZANT TECHNOLOGY SOLUTIONS	BENTONVILLE
828.	COGNIZANT TECHNOLOGY SOLUTIONS	BHIWANDI
829.	COGNIZANT TECHNOLOGY SOLUTIONS	BUNDI
830.	COGNIZANT TECHNOLOGY SOLUTIONS	BURDWAN
831.	COGNIZANT TECHNOLOGY SOLUTIONS	CANTON
832.	COGNIZANT TECHNOLOGY SOLUTIONS	CHENGAM
833.	COGNIZANT TECHNOLOGY SOLUTIONS	CHENNAI
834.	COGNIZANT TECHNOLOGY SOLUTIONS	CHEYEAR
835.	COGNIZANT TECHNOLOGY SOLUTIONS	CHINCHWAD
836.	COGNIZANT TECHNOLOGY SOLUTIONS	CHITTORGARH
837.	COGNIZANT TECHNOLOGY SOLUTIONS	COIMBATORE
838.	COGNIZANT TECHNOLOGY SOLUTIONS	DHANBAD
839.	COGNIZANT TECHNOLOGY SOLUTIONS	DHARMAPURI
840.	COGNIZANT TECHNOLOGY SOLUTIONS	DINDIGUL
841.	COGNIZANT TECHNOLOGY SOLUTIONS	DUBLIN
842.	COGNIZANT TECHNOLOGY SOLUTIONS	DUNWOODY
843.	COGNIZANT TECHNOLOGY SOLUTIONS	ERNAKULAM
844.	COGNIZANT TECHNOLOGY SOLUTIONS	ERODE
845.	COGNIZANT TECHNOLOGY SOLUTIONS	GHAZIABAD
846.	COGNIZANT TECHNOLOGY SOLUTIONS	GUDUVANCHERY
847.	COGNIZANT TECHNOLOGY SOLUTIONS	GULBARGA
848.	COGNIZANT TECHNOLOGY SOLUTIONS	GURDASPUR
849.	COGNIZANT TECHNOLOGY SOLUTIONS	GURGAON



<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
850.	COGNIZANT TECHNOLOGY SOLUTIONS	HARIPAD
851.	COGNIZANT TECHNOLOGY SOLUTIONS	HOSUR
852.	COGNIZANT TECHNOLOGY SOLUTIONS	HOWRAH
853.	COGNIZANT TECHNOLOGY SOLUTIONS	HYDERABAD
854.	COGNIZANT TECHNOLOGY SOLUTIONS	KALYAN
855.	COGNIZANT TECHNOLOGY SOLUTIONS	KANCHIPURAM
856.	COGNIZANT TECHNOLOGY SOLUTIONS	KANNUR
857.	COGNIZANT TECHNOLOGY SOLUTIONS	KARAIKAL
858.	COGNIZANT TECHNOLOGY SOLUTIONS	KARIMNAGAR
859.	COGNIZANT TECHNOLOGY SOLUTIONS	KATTANKULATHUR
860.	COGNIZANT TECHNOLOGY SOLUTIONS	KOCHI
861.	COGNIZANT TECHNOLOGY SOLUTIONS	KOCHIN
862.	COGNIZANT TECHNOLOGY SOLUTIONS	KOLKATA
863.	COGNIZANT TECHNOLOGY SOLUTIONS	KOLLAM
864.	COGNIZANT TECHNOLOGY SOLUTIONS	KRISHNAGIRI
865.	COGNIZANT TECHNOLOGY SOLUTIONS	KURNOOL
866.	COGNIZANT TECHNOLOGY SOLUTIONS	MACHALIPATNAM
867.	COGNIZANT TECHNOLOGY SOLUTIONS	MADURAI
868.	COGNIZANT TECHNOLOGY SOLUTIONS	MALAPPURAM
869.	COGNIZANT TECHNOLOGY SOLUTIONS	MALVERN
870.	COGNIZANT TECHNOLOGY SOLUTIONS	MANCHESTER
871.	COGNIZANT TECHNOLOGY SOLUTIONS	MAPLE SHADE
872.	COGNIZANT TECHNOLOGY SOLUTIONS	MEERUT
873.	COGNIZANT TECHNOLOGY SOLUTIONS	MYSORE
874.	COGNIZANT TECHNOLOGY SOLUTIONS	NAGPUR
875.	COGNIZANT TECHNOLOGY SOLUTIONS	NASHIK
876.	COGNIZANT TECHNOLOGY SOLUTIONS	NAVI MUMBAI
877.	COGNIZANT TECHNOLOGY SOLUTIONS	NAVSARI
878.	COGNIZANT TECHNOLOGY SOLUTIONS	NELLORE
879.	COGNIZANT TECHNOLOGY SOLUTIONS	NEW DELHI
880.	COGNIZANT TECHNOLOGY SOLUTIONS	NORTHVILLE
881.	COGNIZANT TECHNOLOGY SOLUTIONS	OSMANABAD
882.	COGNIZANT TECHNOLOGY SOLUTIONS	PALAKKAD
883.	COGNIZANT TECHNOLOGY SOLUTIONS	PERAMBALUR
884.	COGNIZANT TECHNOLOGY SOLUTIONS	PUDUCHERRY
885.	COGNIZANT TECHNOLOGY SOLUTIONS	PUDUKKOTTAI
886.	COGNIZANT TECHNOLOGY SOLUTIONS	PUNE
887.	COGNIZANT TECHNOLOGY SOLUTIONS	QUINCY
888.	COGNIZANT TECHNOLOGY SOLUTIONS	RAJAMUNDRY
889.	COGNIZANT TECHNOLOGY SOLUTIONS	SALEM
890.	COGNIZANT TECHNOLOGY SOLUTIONS	SAN JOSE
891.	COGNIZANT TECHNOLOGY SOLUTIONS	SARAVANAMPATTI
892.	COGNIZANT TECHNOLOGY SOLUTIONS	SCRANTON
893.	COGNIZANT TECHNOLOGY SOLUTIONS	SECUNDERABAD
894.	COGNIZANT TECHNOLOGY SOLUTIONS	SERAMPORE
895.	COGNIZANT TECHNOLOGY SOLUTIONS	SHRIRAMPUR
896.	COGNIZANT TECHNOLOGY SOLUTIONS	SINGAPORE
897.	COGNIZANT TECHNOLOGY SOLUTIONS	STAMFORD
898.	COGNIZANT TECHNOLOGY SOLUTIONS	STEVENAGE
899.	COGNIZANT TECHNOLOGY SOLUTIONS	THODUPUZHA
900.	COGNIZANT TECHNOLOGY SOLUTIONS	THORAIPAKKAM
901.	COGNIZANT TECHNOLOGY SOLUTIONS	THRISSUR
902.	COGNIZANT TECHNOLOGY SOLUTIONS	TIRUPATI
903.	COGNIZANT TECHNOLOGY SOLUTIONS	TIRUVALLUR
904.	COGNIZANT TECHNOLOGY SOLUTIONS	TIRUVANNAMALAI
905.	COGNIZANT TECHNOLOGY SOLUTIONS	TRICHY
906.	COGNIZANT TECHNOLOGY SOLUTIONS	TRIVANDRUM

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
907.	COGNIZANT TECHNOLOGY SOLUTIONS	UDUMALPET
908.	COGNIZANT TECHNOLOGY SOLUTIONS	VELLORE
909.	COGNIZANT TECHNOLOGY SOLUTIONS	VENGAPAKKAM
910.	COGNIZANT TECHNOLOGY SOLUTIONS	VERNON
911.	COGNIZANT TECHNOLOGY SOLUTIONS	VILLUPURAM
912.	COGNIZANT TECHNOLOGY SOLUTIONS	VIRUDHUNAGAR
913.	COLAN INFO TECH	DINDIGUL
914.	COLLABERA INC	BAREILLY
915.	COLLABERA TECHNOLOGIES PVT. LTD.	HYDERABAD
916.	COLLABNET SOFTWARE PVT. LTD.	CHENNAI
917.	COLORCON ASIA PVT. LTD.	VERNA
918.	COLRUYT GROUP	VISAKHA PATNAM
919.	COLUMN SOFTWARE TECHNOLOGIES PVT. LTD.	JAIPUR
920.	COMAU (I) PVT. LTD.	PUNE
921.	COMMSCOPE (I) PVT. LTD.	BICHOLIM
922.	COMMSCOPE (I) PVT. LTD.	MARGAO
923.	COMMVault SYSTEMS (I) PVT. LTD.	BANGALORE
924.	COMMVault SYSTEMS (I) PVT. LTD.	MADURAI
925.	COMMVault SYSTEMS (I) PVT. LTD.	SATTUR
926.	COMPASS ENGINEERING SERVICES LLC	THRISSUR
927.	COMPASS SYSTEM PVT. LTD.	GHAZIABAD
928.	COMPASSITES SOFTWARE SOLUTIONS PVT. LTD.	BANGALORE
929.	COMPUMATRICE	PUNE
930.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	BANGALORE
931.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	CALICUT
932.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	CHENNAI
933.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	DELHI
934.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	HYDERABAD
935.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	NOIDA
936.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	TIRUPATHI
937.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	TRICHY
938.	COMPUTER SCIENCES CORPORATION (I) PVT. LTD.	VELLORE
939.	COMVERSE NETWORK SYSTEMS (I) PVT. LTD.	BANGALORE
940.	COMVERSE NETWORK SYSTEMS (I) PVT. LTD.	BHUBANESWAR
941.	COMVERSE NETWORK SYSTEMS (I) PVT. LTD.	GURGAON
942.	CONARES METAL SUPPLY LLC	AL DHAID
943.	CONARES STEEL	DUBAI
944.	CONAX ACCESS SYSTEMS PVT. LTD.	GHAZIABAD
945.	CONGNIZANT TECHNOLOGY SOLUTIONS	BANGALORE
946.	CONSTRUCTION DEVELOPMENT CO.	CHENNAI
947.	CONTANER CORPORATION OF (I) LTD.	JAIPUR
948.	CONTINENTAL AUTOMOTIVE COMPONENTS (I) PVT. LTD.	BANGALORE
949.	CONTINENTAL AUTOMOTIVE COMPONENTS (I) PVT. LTD.	COIMBATORE
950.	CONTINENTAL AUTOMOTIVE COMPONENTS (I) PVT. LTD.	DURG
951.	CONTINENTAL AUTOMOTIVE COMPONENTS (I) PVT. LTD.	GREATER NOIDA
952.	CONTINENTAL AUTOMOTIVE COMPONENTS (I) PVT. LTD.	PUNE
953.	CONTINENTAL HOSPITALS LTD.	HYDERABAD
954.	CONTROL COMPONENT (I) PVT. LTD.	CHENNAI
955.	CONTROL COMPUTER SYSTEMS (SYSCOM)	DUBAI
956.	CONVERGYS (I) SERVICES PVT. LTD.	HYDERABAD
957.	CONVERGYS INFORMATION MANAGEMENT (I) PVT. LTD.	HYDERABAD
958.	CORAZA TECHNOLOGIES ONEDIRECT	BANGALORE
959.	CORE TIME SOLUTION	NANGAL
960.	CORECOMPETE PVT. LTD.	HYDERABAD
961.	COREEL TECHNOLOGIES (I) PVT. LTD.	BANGALORE
962.	CORNING TECHNOLOGIES (I) PVT. LTD.	MUMBAI
963.	CORNING TECHNOLOGIES (I) PVT. LTD.	NAGPUR

S.NO.	NAME	LOCATION
964.	CORNING TECHNOLOGIES (I) PVT. LTD.	PUNE
965.	COROMANDEL INTERNATIONAL LTD.	HYDERABAD
966.	COROMANDEL INTERNATIONAL LTD.	VISAKHAPATNAM
967.	CORP RESEARCH COUNSULTING	BANGALORE
968.	CORPUS SOFTWARE PVT. LTD.	SOMPETA
969.	COSMA INTERNAIONAL (I) PVT. LTD.	CHENNAI
970.	COSTRA GROUP LLC	KOCHI
971.	COVIDIEN ENGINEERING SERVICES PVT. LTD.	HYDERABAD
972.	COVIDIEN ENGINEERING SERVICES PVT. LTD.	SECUNDERABAD
973.	CQAE(N)	HYDERABAD
974.	CRAFTSMAN AUTOMATION PVT. LTD.	JAMSHEDPUR
975.	CRAFTSMAN AUTOMATION PVT. LTD.	PUNE
976.	CRANE PROCESS FLOW TECHNOLOGIES (I) PVT. LTD.	MUMBAI
977.	CRANE PROCESS FLOW TECHNOLOGIES (I) PVT. LTD.	PUNE
978.	CREATIVE BUSINESS LABS PVT. LTD.	NEW DELHI
979.	CREATIVE SYNERGIES CONSULTING (I) PVT. LTD.	BANGALORE
980.	CREATIVE VIRTUAL	MUMBAI
981.	CREDIT SUISSE	BANGALORE
982.	CREDIT SUISSE SERVICES PVT. LTD.	PUNE
983.	CREST PREMEDIA PVT. LTD.	PUNE
984.	CRESTECH SOFTWARE SYSTEM PVT. LTD.	NEW DELHI
985.	CRIPUMPS PVT. LTD.	KOLKATA
986.	CROMPTON GREAVES LTD.	BHOPAL
987.	CROMPTON GREAVES LTD.	THANE
988.	CRYOLOR ASIA PACIFIC	CHENNAI
989.	CRYSTAL CROP PROTECTION PVT. LTD.	DELHI
990.	CSC (I) PVT. LTD.	CHENNAI
991.	CSC (I) PVT. LTD.	NEW DELHI
992.	CSC (I) PVT. LTD.	NOIDA
993.	CSC (I) PVT. LTD.	SALEM
994.	CSC (I) PVT. LTD.	SECUNDERABAD
995.	CSIR-CEERI	JHUNJHUNU
996.	CSIR-CEERI	PILANI
997.	CSIR-NATIONAL AEROSPACE LABORATORIES	BANGALORE
998.	CSS CORP PVT. LTD.	CHENNAI
999.	CSS CORP PVT. LTD.	KURNOOL
1000.	CSS CORP PVT. LTD.	PALAKKAD
1001.	CTK SOFTWARE	BANGALORE
1002.	CUMMINS (I) LTD.	GUWAHATI
1003.	CUMMINS (I) LTD.	JAIPUR
1004.	CUMMINS (I) LTD.	NEW DELHI
1005.	CUMMINS (I) LTD.	PUNE
1006.	CUMMINS (I) LTD.	SATARA
1007.	CUMMINS MIDDLE EAST	SHARJAH
1008.	CUMMINS MIDDLE EAST FZE	DUBAI
1009.	CUMMINS TECHNOLOGIES (I) PVT. LTD.	BHOPAL
1010.	CUMMINS TECHNOLOGIES (I) PVT. LTD.	INDORE
1011.	CUMMINS TECHNOLOGIES (I) PVT. LTD.	PUNE
1012.	CUPOLA TECHNOLOGY	BANGALORE
1013.	CWE DELHI CANTT	NEW DELHI
1014.	CYBAGE SOFTWARE PVT. LTD.	PILANI
1015.	CYBAGE SOFTWARE PVT. LTD.	PUNE
1016.	CYBERTECH SYSTEMS & SOFTWARE LTD.	THANE
1017.	CYBRILLA TECHNOLOGIES PVT. LTD.	BANGALORE
1018.	CYBRILLA TECHNOLOGIES PVT. LTD.	JAUNPUR
1019.	CYIENT LTD.	BANGALORE
1020.	CYIENT LTD.	HYDERABAD

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1021.	CYIENT LTD.	KARIMANAGAR
1022.	CYIENT LTD.	MADURAI
1023.	CYIENT LTD.	MEDAK
1024.	CYIENT LTD.	VISAKHAPATNAM
1025.	CYIENT LTD.	VIZIANAGARAM
1026.	CYLINGAS CO. LLC	KANNUR
1027.	CYPRESS SEMICONDUCTORS PVT. LTD.	BANGALORE
1028.	CYPRESS SEMICONDUCTORS PVT. LTD.	ERNAKULAM
1029.	CYPRESS SEMICONDUCTORS PVT. LTD.	NAGERCOIL
1030.	CYPRESS SEMICONDUCTORS PVT. LTD.	TIRUPATI
1031.	D H SOLUTIONS (I) PVT. LTD.	TRIVANDRUM
1032.	D. E. SHAW (I) SOFTWARE PVT. LTD.	HYDERABAD
1033.	DAELIM INDUSTRIALCO.LTD.	KOLKATA
1034.	DAIKIN AIRCONDITIONING (I) PVT. LTD.	JHUNJHUNU
1035.	DAIMLER (I) COMMERCIAL VEHICLE PVT. LTD.	CHENNAI
1036.	DALMIA BHARAT CEMENT LTD.	CHENNAI
1037.	DALMIA BHARAT CEMENT LTD.	GUWAHATI
1038.	DALMIA BHARAT CEMENT LTD.	SATNA
1039.	DANA (I) TECHNICAL CENTER	BULANDSHAHR
1040.	DANFOSS INDUSTRIES	CHENNAI
1041.	DANFOSS INDUSTRIES (P) LTD.	CHENNAI
1042.	DANSKE IT	BANGALORE
1043.	DANWAY EME LLC	DUBAI
1044.	DASSAULT SYSTEMES (I) PVT. LTD.	BANGALORE
1045.	DATAFOSTER SOLUTIONS	SOLAPUR
1046.	DATAGROUP GEOSPATIAL TECHNOLOGIES PVT. LTD.	HYDERABAD
1047.	DATAMATE INFO SOLUTION PVT. LTD.	CHERTHALA
1048.	DATAMATICS VISTA INFO SYSTEMS LTD.	TRICHY
1049.	DATAMETICA PVT. LTD.	PUNE
1050.	DATAMETICA SOLUTIONS PVT. LTD.	PUNE
1051.	DATAMI	BANGALORE
1052.	DATT MEDIPRODUCTS PVT. LTD.	DELHI
1053.	DATTA MEGHE INSTITUTE OF MEDICAL SCIENCE	NAGPUR
1054.	DAYALBAGH UNIVERSITY	AGRA
1055.	DBA AND SONS	ABU DHABI
1056.	DBXENTO SYSTEMS	NASHIK
1057.	DCM SHRIRAM LTD.	TIRUCHIRAPPALLI
1058.	DECISION MINDS (I) PVT. LTD.	BANGALORE
1059.	DECURTIS CORPORATION	JAIPUR
1060.	DECURTIS CORPORATION	PILANI
1061.	DEE DEVELOPMENT ENGINEERS LTD.	FARIDABAD
1062.	DEEPAK HOSPITAL	JALNA
1063.	DEFENCE FORCES	AMBALA
1064.	DEFENCE RESEARCH & DEVELOPMENT ORGANIZATION	HYDERABAD
1065.	DEFENCE RESEARCH & DEVELOPMENT ORGANIZATION	NOIDA
1066.	DEFIANCE TECHNOLOGIES	CHENNAI
1067.	DELL (I) PVT. LTD.	BANGALORE
1068.	DELL INTERNATIONAL SERVICES PVT. LTD.	BANGALORE
1069.	DELL INTERNATIONAL SERVICES PVT. LTD.	CHENNAI
1070.	DELL INTERNATIONAL SERVICES PVT. LTD.	ELURU
1071.	DELL INTERNATIONAL SERVICES PVT. LTD.	HYDERABAD
1072.	DELL INTERNATIONAL SERVICES PVT. LTD.	NASIRABAD
1073.	DELOITTE CONSULTING (I) PVT. LTD.	BANGALORE
1074.	DELOITTE CONSULTING (I) PVT. LTD.	GWALIOR
1075.	DELOITTE CONSULTING (I) PVT. LTD.	HYDERABAD
1076.	DELOPT	BANGALORE
1077.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	ALAPPUZHA

S.NO.	NAME	LOCATION
1078.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	BANGALORE
1079.	DELPHI AUTOMOTIVE SYSTEMS PVT. LTD.	BELGAUM
1080.	DELPHI CONNECTION SYSTEMS (I) PVT. LTD.	CHENNAI
1081.	DELPHI-TVS DIESEL SYSTEMS LTD.	CHENNAI
1082.	DELPHI-TVS DIESEL SYSTEMS LTD.	COIMBATORE
1083.	DELPHI-TVS DIESEL SYSTEMS LTD.	TIRUPPUR
1084.	DELTA POWER SOLUTIONS (I) PVT. LTD.	BANGALORE
1085.	DENSO (I) LTD.	NANGLOI
1086.	DEODITA TECHNOLOGIES	MUMBAI
1087.	DESCON ENGINEERING LTD.	THIRUVANANTHAPURAM
1088.	DESIGN SENSE SOFTWARE TECHNOLOGIES	BANGALORE
1089.	DESIGN TECH SYSTEMS LTD.	FARIDABAD
1090.	DESMET BALLESTRA (I) PVT.LTD.	MUMBAI
1091.	DESMI (I) LLP	KOTTAYAM
1092.	DEUTSCHE BANK	PUNE
1093.	DEXCEL ELECTRONICS DESIGNS PVT.LTD.	RAMANATHAPURAM
1094.	DFMSIM SOFTWARE (I) PVT. LTD.	CHENNAI
1095.	DGCA MINISTRY OF CIVIL AVIATION	CHENNAI
1096.	DIAGNOSEARCH LIFE SCIENCES PVT. LTD.	SERAMPORE
1097.	DIAGNOSYS ELECTRONICS (I) PVT. LTD.	BANGALORE
1098.	DIAGNOSYS ELECTRONICS (I) PVT. LTD.	HYDERABAD
1099.	DIAMOND POWER INFRASTRUCTURE LTD.	VADODARA
1100.	DIFACTO ROBOTICS AND AUTOMATION PVT. LTD.	VELLORE
1101.	DIGIDARTS MARKETING PVT. LTD.	NEW DELHI
1102.	DIGITAL HARBOR PVT. LTD.	KADAPA
1103.	DIMA E-SOLUTIONS PVT. LTD.	PUNE
1104.	DIMENSION DATA (I) PVT. LTD.	BANGALORE
1105.	DIMENSION DATA (I) PVT. LTD.	GURGAON
1106.	DIRECTI INTERNET SOLUTIONS PVT. LTD.	BANGALORE
1107.	DISA (I) LTD.	TUMKUR
1108.	DISTRICT HEALTH SOCIETY	PATNA
1109.	DN HOMES PVT. LTD.	CUTTACK
1110.	DNATA   EMIRATES GROUP	DUBAI
1111.	DODSAL ENGINEERING & CONSTRUCTION PTE LTD.	COCHIN
1112.	DOOSAN INFRACORE	CHENNAI
1113.	DOOSAN POWER SYSTEMS (I) PVT. LTD.	CHENNAI
1114.	DORNIER CONSULTING GMBH	AL KARAAMA
1115.	DOTSQUARES	JAIPUR
1116.	DOVER (I) PVT. LTD.	CHENNAI
1117.	DOVER (I) PVT. LTD.	HYDERABAD
1118.	DOVER (I) PVT.LTD.	BANGALORE
1119.	DOW CHEMICAL INTERNATIONAL PVT. LTD.	CHENNAI
1120.	DP GARG EXPORT PVT.LTD.	GURGAON
1121.	DP GARG EXPORT PVT.LTD.	NOIDA
1122.	DR. REDDY'S LABORATORIES LTD.	BANGALORE
1123.	DR. REDDY'S LABORATORIES LTD.	DATIA
1124.	DR. REDDY'S LABORATORIES LTD.	HYDERABAD
1125.	DR. REDDY'S LABORATORIES LTD.	KOLKATA
1126.	DR. REDDY'S LABORATORIES LTD.	MALAPPURAM
1127.	DR. REDDY'S LABORATORIES LTD.	MEDAK
1128.	DR. REDDY'S LABORATORIES LTD.	ROHTAK
1129.	DR. REDDY'S LABORATORIES LTD.	TUTICORIN
1130.	DR. REDDY'S LABORATORIES LTD.	VADODARA
1131.	DR. REDDY'S LABORATORIES LTD.	VIJAYAWADA
1132.	DR. REDDY'S LABORATORIES LTD.	VISAKHA PATNAM
1133.	DR.K.M.CHERIAN'S FRONTIER LIFELINE HOSPITAL	CHENNAI
1134.	DRDO	DELHI

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1135.	DRDO	HYDERABAD
1136.	DRDO	NOIDA
1137.	DRESSER VALVE (I) PVT. LTD.	COIMBATORE
1138.	DRILL JIG BUSHING CO. (MADRAS) PVT. LTD.	CHENNAI
1139.	DRUVA DATA SOLUTIONS PVT. LTD.	PUNE
1140.	DSA ANALYTICS AND RESEARCH PVT. LTD.	BANGALORE
1141.	DTE GEN OF QUALITY ASSURANCE	JABALPUR
1142.	DUBAI AIR NAVIGATION SERVICES	DUBAI
1143.	DUBAI ALLUMINIUM CO. LTD.	DUBAI
1144.	DUBAI CABLE CO.	JABEL ALI
1145.	DUBAI CABLE CO.	MUSSAFFAH
1146.	DUBAI ELECTRICITY AND WATER AUTHORITY	DUBAI
1147.	DUBAI ELECTRICITY AND WATER AUTHORITY	JEBEL ALI
1148.	DUBAI ELECTRICITY AND WATER AUTHORITY	MALAPPURAM
1149.	DURA AUTOMOTIVE SERVICES (I) PVT. LTD.	HYDERABAD
1150.	DURR (I) PVT. LTD.	CHENNAI
1151.	DURR (I) PVT. LTD.	HOSUR
1152.	DVS TECHNOSOFT PVT. LTD.	PUNE
1153.	DYANSYS (I) PVT. LTD.	CHENNAI
1154.	DYNACAST SINGAPORE PTE LTD.	JURONG WEST
1155.	DYNAMIC BIZ SOLUTIONS	MIDDLETOWN
1156.	DYNAMIC TECHNO MEDICALS PVT. LTD.	THRISSUR
1157.	E.I.DUPONT INDIA PVT. LTD.	HYDERABAD
1158.	E.I.DUPONT INDIA PVT. LTD.	SECUNDERABAD
1159.	E2INFOSYSTEMS PVT. LTD.	CHENNAI
1160.	EAGLEBURGMANN (MALAYSIA) SDN BHD	MADURAI
1161.	EASI, AN ALLEGIS GROUP OF COMPANY	BENGALURU
1162.	EASI, AN ALLEGIS GROUP OF COMPANY	TRICHY
1163.	EASUN REYROLLE LTD.	NEYVELI
1164.	EATON CORP MTL INSTRUMENTS PVT. LTD.	CHENNAI
1165.	EATON CORPORATION	PUNE
1166.	EATON FLUID POWER LTD.	NOIDA
1167.	EATON INDIA ENGINEERING CENTER PUNE	PUNE
1168.	EATON INDIA ENGINEERING CENTER PVT. LTD.	PUNE
1169.	EATON INDUSTRIAL SYSTEMS PVT. LTD.	PUNE
1170.	EATON INDUSTRIAL SYSTEMS PVT. LTD.	PUNE
1171.	EATON POWER QUALITY PVT. LTD.	MUMBAI
1172.	EATON TECHNOLOGIES PVT. LTD.	KOLHAPUR
1173.	EATON TECHNOLOGIES PVT. LTD.	KOPPAL
1174.	EATON TECHNOLOGIES PVT. LTD.	PUNE
1175.	EATON TECHNOLOGIES PVT. LTD.	SATARA
1176.	EATON TECHNOLOGIES PVT. LTD.	TASGAON
1177.	EC SOFTWARE	DHARMAPURI
1178.	ECHO ARCHITECTURE	RIYADH
1179.	ECIL	HYDERABAD
1180.	ECON METALLIC INDIA PVT. LTD.	MOHALI
1181.	E-CONNECT SOLUTIONS PVT. LTD.	UDAIPUR
1182.	EDGEVERVE SYSTEMS LTD.	PUNE
1183.	EDIFECS TECHNOLOGIES PVT. LTD.	NOIDA
1184.	EGA-DUBAI ALUMINIUM COMPANY	DUBAI
1185.	EGAIN COMMUNICATIONS	PUNE
1186.	EGI - ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	COOCH BEHAR
1187.	EINFOCHIPS LTD.	AHMEDABAD
1188.	EINFOCHIPS LTD.	SOLAPUR
1189.	EISYSTEMS SERVICES	MATHURA
1190.	ELECTRO MECHANICAL SERVICES LLC	RUWI
1191.	ELECTRONICA HITECH MACHINE TOOLS PVT. LTD.	PUNE

S.NO.	NAME	LOCATION
1192.	ELECTRONICS CORPORATION OF INDIA LTD.	HYDERABAD
1193.	ELECTRONICS FOR IMAGING PVT. LTD.	BENGALURU
1194.	ELECTROPNEUMATICS & HYDRAULICS IND PVT. LTD.	PUNE
1195.	ELEVATOR COMPANY (INDIA) LTD.	BENGALURU
1196.	ELITE SCHOOL OF OPTIMETRY	CHENNAI
1197.	ELITECORE TECHNOLOGY PVT. LTD.	CHHATARPUR
1198.	ELSEWEDY CABLES	DOHA
1199.	ELSYTEC POWER PROJECTS PVT. LTD.	CHENNAI
1200.	ELVERS TECH	BENGALURU
1201.	EMBEDDED SYSTEMS SOLUTIONS	BENGALURU
1202.	EMC CORPORATION	BENGALURU
1203.	EMC DATA STORAGE SYSTEMS INDIA PVT. LTD.	BENGALURU
1204.	EMC SOFTWARE AND SERVICES INDIA PVT. LTD.	BENGALURU
1205.	EMC SOFTWARE AND SERVICES INDIA PVT. LTD.	ERODE
1206.	EME ENGINEERING CONSULTANTS	BUSINESS BAY
1207.	EMERIO INFOTECH PTE LTD.	SINGAPORE
1208.	EMERSON ELECTRIC CO. INDIA PVT. LTD.	NAVI MUMBAI
1209.	EMERSON FZE	JEBEL ALI
1210.	EMERSON FZN	JEBEL ALI
1211.	EMERSON INDUSTRIAL AUTOMATION	BENGALURU
1212.	EMERSON INNOVATION CENTER	PUNE
1213.	EMERSON NETWORK POWER (I) PVT. LTD.	BENGALURU
1214.	EMERSON NETWORK POWER (I) PVT. LTD.	DOMBIVLI
1215.	EMERSON NETWORK POWER (I) PVT. LTD.	KHARAR
1216.	EMERSON NETWORK POWER (I) PVT. LTD.	MULUND
1217.	EMERSON NETWORK POWER (I) PVT. LTD.	NAVI MUMBAI
1218.	EMERSON NETWORK POWER (I) PVT. LTD.	THANE
1219.	EMERSON PROCESS MANAGEMENT	JEBEL ALI
1220.	EMERSON PROCESS MANAGEMENT ASIA PACIFIC	SINGAPORE
1221.	EMIDS TECHNOLOGIES PVT. LTD.	BENGALURU
1222.	EMIRATES ALUMINIUM COMPANY	ABU DHABI
1223.	EMIRATES ALUMINIUM COMPANY	DUBAI
1224.	EMIRATES ALUMINIUM COMPANY	ERNAKULAM
1225.	EMIRATES ALUMINIUM COMPANY	JAMNAGAR
1226.	EMIRATES BLOCK FACTORY	ABU DHABI
1227.	EMIRATES GENERAL PETROLEUM CORPORATION	DUBAI
1228.	EMIRATES GLOBAL ALUMINIUM	AHMEDABAD
1229.	EMIRATES GROUP	DUBAI
1230.	EMIRATES STEEL INDUSTRIES	MUSSAFAH
1231.	EMIRATES STEEL INDUSTRIES	RAJAMPET
1232.	EMIRATES TRADING AGENCY (ETA)	DUBAI
1233.	EMISSION CONTROLS MANUFACTURERS ASSOCIATES	NEW DELHI
1234.	EMITAC ENTERPRISE SOLUTIONS	ABUDHABI
1235.	EMMANUEL HOSPITAL ASSOCIATION	LALITPUR
1236.	E-MUG TECHNOLOGIES PVT. LTD.	HYDERABAD
1237.	ENARKA INSTRUMENTS PVT. LTD.	BENGALURU
1238.	ENDEAVOUR SOFTWARE TECHNOLOGIES	BENGALURU
1239.	ENDURANCE TECHNOLOGIES PVT. LTD.	AURANGABAD
1240.	ENDURANCE TECHNOLOGIES PVT. LTD.	RUDRAPUR
1241.	ENERGO PROJEKT ENTEL CO.LTD.	DUBAI
1242.	ENERGO PROJEKT ENTEL CO.LTD.	OUDMETHA
1243.	ENERGY ENGINEERING	AJMAN
1244.	ENGINEERS INDIA LTD.	BHARUCH
1245.	ENGTECH ASSOCIATES	ALLAHABAD
1246.	ENLIGHTEN SOFTWARE SERVICES PVT. LTD.	BENGALURU
1247.	ENVESTNET ASSET MANAGEMENT (INDIA) PVT. LTD.	TRIVANDRUM
1248.	EPCOS INDIA PVT. LTD.	REWARI

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1249.	EQ-TECHNOLOGIC	PUNE
1250.	EQUADRIGA SOFTWARE PVT. LTD.	TIRUCHIRAPPALLI
1251.	EQUATE PETRO CHEMICALS COMAPNY	KUWAIT
1252.	EQUATE PETRO CHEMICALS COMAPNY	MUMBAI
1253.	EQUATE PETRO CHEMICALS COMAPNY	ORATHANADU
1254.	EREVMAX TECHNOLOGIES PVT. LTD.	KOLKATA
1255.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	BENGALURU
1256.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	CHENNAI
1257.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	COIMBATORE
1258.	ERICSSON INDIA GLOBAL SERVICES PVT. LTD.	TUMKUR
1259.	ERICSSON UK LTD.	DELHI
1260.	ERNST & YOUNG	TRIVANDRUM
1261.	ERNST & YOUNG GLOBAL (ASIA PACIFIC) PTE	SINGAPORE
1262.	ERNST YOUNG LLP	HYDERABAD
1263.	EROS INTERNATIONAL MEDIA PVT. LTD.	BENGALURU
1264.	ESAB MIDDLE EAST LLC	DUBAI
1265.	ESCORTS AGRI MACHINERY LTD.	FARIDABAD
1266.	ESCORTS LTD.	FARIDABAD
1267.	ESCORTS LTD.	PANIPAT
1268.	ESNAAD	NEW DELHI
1269.	ESOFT	HYDERABAD
1270.	E-SOURCE SOLUTIONS LTD.	BENGALURU
1271.	ESQUARE INFO SOLUTIONS	TIRUVALLUR
1272.	ESSAR ENERGY SERVICES LTD.	JAMNAGAR
1273.	ESSAR OIL LTD.	JAMNAGAR
1274.	ESSAR POWER LTD.	SURAT
1275.	ESSAR PROJECs (I) LTD.	NAVI MUMBAI
1276.	ESSAR PROJECTS SINGAPORE PTE LTD.	HOSUR
1277.	ESSAR STEEL INDIA LTD.	CHENNAI
1278.	ESSAR STEEL INDIA LTD.	SURAT
1279.	ESSENTRA LTD.	BENGALURU
1280.	ESSILOR INDIA PVT. LTD.	BENGALURU
1281.	ESSILOR MANUFACTURING INDIA PVT. LTD.	CHIKMAGLUR
1282.	ESTUATE SOFTWARE PVT. LTD.	BENGALURU
1283.	ETA ASCON (M&E DIVISION)	MUMBAI
1284.	ETA ASCON GROUP OF COMPANIES	KADAYANALLUR
1285.	ETA PCS SWITCHGEAR LLC	AJMAN
1286.	ETERNIS FINE CHEMICALS	KOLHAPUR
1287.	ETIHAD AIRWAYS ENGINEERING	ABU DHABI
1288.	EUROFINS IT SOLUTIONS INDIA PVT. LTD.	BENGALURU
1289.	EURONET INDIA PVT. LTD.	PUNE
1290.	EUROTAS INFRASTRCTURE LTD.	NASHIK
1291.	EUTHENICS IT SERVICES PVT. LTD.	VISAKHAPATNAM
1292.	EVALUESERVE.COM	NEW DELHI
1293.	EVERSENDAI ENGINEERING FZE	SHARJAH
1294.	EVERSENDAI ENGINEERING LLC	SHARJAH
1295.	EVERSENDAI OFFSHORE RMC FZE	DUBAI
1296.	EVOLUTION DEVELOPERS LTD.	DELHI
1297.	EVOQUA WATER TECHNOLOGIES PTE LTD.	SINGAPORE
1298.	EXCEL POWER SWITCHGEAR PVT. LTD.	CHENNAI
1299.	EXCELERON SOFTWARE PVT. LTD.	BENGALURU
1300.	EXCELLENCE INFOCOM	PUNE
1301.	EXCELLENCE INFONET	JUNAGADH
1302.	EXCELLENT SHIPBUILDERS	GURUVAYUR
1303.	EXETER SOFTWARE INDIA	BENGALURU
1304.	EXFO INC.	PUNE
1305.	EXIDE LIFE INSURANCE COMPANY LTD.	BENGALURU



S.NO.	NAME	LOCATION
1306.	EXILANT TECHNOLOGIES PVT. LTD.	BENGALURU
1307.	EXPEDIA ONLINE TRAVEL SERVICES INDIA PVT. LTD.	DWARKA
1308.	EXPEDIA ONLINE TRAVEL SERVICES INDIA PVT. LTD.	GURGAON
1309.	EXPERT GLOBAL SOLUTION PVT. LTD.	PUNE
1310.	EXTERRAN BELLELI ENERGY FZE	SHARJAH
1311.	EXTERRO R & D	TIRUCHIRAPPALLI
1312.	EXXON MOBIL	SINGAPORE
1313.	EXZA INFOSYSTEMS PVT. LTD.	VIMANNAGAR
1314.	EY (ERNST & YOUNG)	THIRUVANNAMALAI
1315.	EYE Q VISION PVT. LTD.	ALIGARH
1316.	FACADE ONE SYSTEMS PRIVATE LTD.	THANE
1317.	FACETS,FACE AND SMILE,12KADAVANTHRA,KOCHI	ERNAKULAM
1318.	FAFADIA TECH	MUMBAI
1319.	FAIR ISAAC INDIA SOFTWARE PRIVATE LIMITE	BANGALORE
1320.	FAIVELEY TRANSPORT	HOSUR
1321.	FASTMAN PTE LTD	SINGAPORE
1322.	FAURACIA AUTOMOTIVE	PUNE
1323.	FAURECIA EMISSION CONTROL TECHNOLOGIES	BANGALORE
1324.	FCA ENGINEERING INDIA PRIVATE LTD.	CHENNAI
1325.	FDC LTD	MUMBAI
1326.	FDC LTD	VERNA GOA
1327.	FENCE INTERNATIONAL L.L.C.	ABU DHABI
1328.	FESTO INDIA PRIVATE LTD.	BANGALORE
1329.	FEUJI	HYDERABAD
1330.	FEV INDIA PRIVATE LTD.	PUNE
1331.	FIABILITE NETWORK SOLUTION PRIVATE LTD.	BANGALORE
1332.	FIAT INDIA AUTOMOBILES PRIVATE LTD.	HYDERABAD
1333.	FIAT INDIA AUTOMOBILES PRIVATE LTD.	PUNE
1334.	FIBRE KING CO LTD - THAILAND	THAILAND
1335.	FICEP	DUBAI
1336.	FICO	BANGALORE
1337.	FICO	PUNE
1338.	FIDELITY BUSINESS SERVICES INDIA PRIVATE	BANGALORE
1339.	FIDELITY BUSINESS SERVICES INDIA PRIVATE	CHENNAI
1340.	FIDELITY BUSINESS SERVICES INDIA PRIVATE	GURGAON
1341.	FIDELITY INVESTMENTS	BANGALORE
1342.	FIDELITY INVESTMENTS	DUBAI
1343.	FINASTRA FORMLEY KNOWN AS D+H	TRIVANDRUM
1344.	FINISAR INDIA PVT LTD	HYDERABAD
1345.	FINXERA	CHANDIGARH
1346.	FIRST AMERICAN	BANGALORE
1347.	FIRST ENERGY PVT LMT, PUNE	PUNE
1348.	FIRST OPINION SERVICES	MOHALI
1349.	FIRST PASS SEMICONDUCTORS PVT LTD	HYDERABAD
1350.	FIS	BANGALORE
1351.	FIS GLOBAL BUSINESS SOLUTIONS INDIA PRIV	CHENNAI
1352.	FIS GLOBAL BUSINESS SOLUTIONS INDIA PRIV	GURGAON
1353.	FIS GLOBAL BUSINESS SOLUTIONS INDIA PRIV	NOIDA
1354.	FIS GLOBAL BUSINESS SOLUTIONS INDIA PRIV	PUNE
1355.	FISERV INDIA PVT LTD	GURGAON
1356.	FISERV INDIA PVT LTD	NOIDA
1357.	FISERV INDIA PVT LTD	PUNE
1358.	FISSION COMPUTER LABS PVT. LTD.	HYDERABAD
1359.	FISSION LABS	HYDEBARBAD
1360.	FLAKTGROUP SINGAPORE PVT LTD	SINGAPORE
1361.	FLEX INDIA PVT LTD.	CHENNAI
1362.	FLEX INDIA PVT LTD.	PUNE

S.NO.	NAME	LOCATION
1363.	FLEXTRONICS TECHNOLOGIES INDIA PVT LTD	CHENNAI
1364.	FLEXTRONICS TECHNOLOGIES INDIA PVT LTD	HYDERABAD
1365.	FLIPKART INDIA PRIVATE LTD.	BANGALORE
1366.	FLIPKART INDIA PRIVATE LTD.	COIMBATORE
1367.	FLOWSERVE GULF FZE	BANGALORE
1368.	FLOWSERVE GULF FZE	DUBAI
1369.	FLOWSERVE INDIA CONTROLS (P) LTD	BANGALORE
1370.	FLOWSERVE INDIA CONTROLS (P) LTD	COIMBATORE
1371.	FLSMIDTH PRIVATE LTD.	CHENNAI
1372.	FLUIDLINE HYDRO EQUIPMENTS	SONIPAT
1373.	FLUOR DANIEL (I) PVT. LTD.	GURGAON
1374.	FLYJAC LOGISTICS PVT LTD	CHENNAI
1375.	FOI SYSTEMS	BANGALORE
1376.	FOLEYDESIGNS PVT LTD	BANGALORE
1377.	FORBES MARSHALL PVT. LTD.	PUNE
1378.	FORCE MOTORS LTD.	PUNE
1379.	FORD INDIA PRIVATE LTD.	AHMEDABAD
1380.	FORD INDIA PRIVATE LTD.	CHENNAI
1381.	FORD MOTOR PRIVATE LTD.	CHENNAI
1382.	FORENSIC SCIENCE LABORATORY, MUMBAI, MAH	MUMBAI
1383.	FORTE RESEARCH SYSTEMS INDIA PVT LTD.	BANGALORE
1384.	FORTHUGHT REALISTIC CODER PVT. LTD.	NOIDA
1385.	FORTINET TECHNOLOGY	HYDERABAD
1386.	FORTIS HEALTHCARE	BANGALORE
1387.	FORTIS HEALTHCARE	CHANDIGARH
1388.	FORTIS HEALTHCARE	MUMBAI
1389.	FORTIUS UNIVERSITAS	BANGALORE
1390.	FOWLER WESTRUP	BANGALORE
1391.	FRANCONNECT INDIA SOFTWARE PVT. LTD.	NOIDA
1392.	FRAUSCHER SENSOR TECHNOLOGY	BANGALORE
1393.	FREIGHTWORKS (DUBAI EXPRESS)	DUBAI
1394.	FRESENIUS KABI ONCOLOGY LTD.	BADDI
1395.	FRESHDESK TECHNOLOGIES PRIVATE LTD.	CHENNAI
1396.	FRESHFISH CONSULTING AND TECHNOLOGIES	BANGALORE
1397.	FRESHFISH CONSULTING AND TECHNOLOGIES	CHENNAI
1398.	FRICK INDIA LTD.	DELHI
1399.	FRIENDS CONSULTANCY SERVICES	VERNA GOA
1400.	FRONIUS INDIA PRIVATE LTD.	CHENNAI
1401.	FRONTIER KNITTERS	BANGLADESH
1402.	FROST & SULLIVAN INDIA PVT LTD.,,	BANGALORE
1403.	FTV PROCLAD (S) PTE LTD	SINGAPORE
1404.	FU CHUN SHIN MACHINERY MANUFACTURE CO;LTD	TAINAN
1405.	FUJAI RAH ASIA POWER COMPANY	COCHIN
1406.	FUJAI RAH ASIA POWER COMPANY	UAE
1407.	FUJITSU CONSULTING INDIA PVT LTD.	BANGALORE
1408.	FUJSENG CONSTRUCTION LLC	UAE
1409.	FUSIONSTAK TECHNOLOGIES PVT LTD	PUNE
1410.	FUTURE ELECTRONICS (DISTRIBUTION) INC.PTE.LT	BANGALORE
1411.	FUTURE PACK - ENPI DIVISION	SHARJAH
1412.	FUTURE SUPPLY CHAIN SOLUTIONS LTD.	THANE
1413.	G4S IT SERVICES INDIA PVT. LTD.	GURGAON
1414.	GABRIEL INDIA LTD	GURGAON
1415.	GABRIEL INDIA LTD	HOSUR
1416.	GAINSIGHT INDIA PVT LTD	HYDERABAD
1417.	GALA PRECISION ENGINEERING PRIVATE LTD	VILLAGE VADAVALI
1418.	GALA PRECISION ENGINEERING PVT LTD	BHANDARA
1419.	GALFAR ENGINEERING & CONTG. SAOG	BANGALORE

S.NO.	NAME	LOCATION
1420.	GAMESA RENEWABLE PRIVATE LTD.	CHENNAI
1421.	GARDNER AEROSPACE PRANITA PRIVATE LTD.	BANGALORE
1422.	GARTNER	MUMBAI
1423.	GASCO (ABUDHABI GAS INDUSTRIES)	ABU DHABI
1424.	GATELENGTH TECHNOLOGY PVT LTD	NOIDA
1425.	GATES INDIA PVT. LTD.	PUNE
1426.	GAURISHANKER ELECTROCASTINGS PVT LTD	GIRIDIH
1427.	GAYATRI PROJECTS LTD.	HYDERABAD
1428.	GE	BANGALORE
1429.	GE	PUNE
1430.	GE ENERGY MANAGEMENT	HYDERABAD
1431.	GE APPLIANCES	BANGALORE
1432.	GE APPLIANCES	HYDERABAD
1433.	GE AVIATION	BANGALORE
1434.	GE BE PVT. LTD.	BANGALORE
1435.	GE CAPITAL	HYDERABAD
1436.	GE DIGITAL,GE INDIA EXPORTS PVT. LTD.	BANGALORE
1437.	GE GLOBAL RESEARCH	BANGALORE
1438.	GE GLOBAL RESEARCH	TIRUNELVELI
1439.	GE GLOBAL RESEARCH	TUTICORIN
1440.	GE HEALTHCARE	BANGALORE
1441.	GE HEALTHCARE	PUNR
1442.	GE INDIA INDUSTRIAL PRIVATE LTD.	BANGALORE
1443.	GE INDIA INDUSTRIAL PRIVATE LTD.	HYDERABAD
1444.	GE INDIA INDUSTRIAL PRIVATE LTD.	PUNE
1445.	GE INDIA INDUSTRIAL PRIVATE LTD.	TELANGANA
1446.	GE INDIA PRIVET LTD.	BANGALORE
1447.	GE INDIA PRIVET LTD.	PUNE
1448.	GE OIL AND GAS(BHGE)	BANGALORE
1449.	GE POWER CONVERSION INDIA PRIVATE LTD.	CHENNAI
1450.	GE POWER CONVERSION INDIA PRIVATE LTD.	HYDERABAD
1451.	GE T&D INDIA LTD.	CHENNAI
1452.	GE T&D INDIA LTD.	HOSUR
1453.	GE TRANSPORTATION	BANGALORE
1454.	GEBR PFEIFFER (INDIA) PVT LTD	NOIDA
1455.	GEC JAGDALPUR	JAGDALPUR
1456.	GEETANJALI HOSPITAL	GMCH
1457.	GEM ENGINEERING INDUSTRIES (INDIA) PRIVA	HYDERABAD
1458.	GEMALTO (ERSTWHILE SAFENET INC)	NOIDA
1459.	GEMINI SOLUTIONS	GURGAON
1460.	GEMS PARTNERS	NEW DELHI
1461.	GENAU EXTRUSIONS LTD	HOSUR
1462.	GENERAL ELECTRIC	ABU DHABI
1463.	GENERAL ELECTRIC	BANGALORE
1464.	GENERAL ELECTRIC	HYDERABAD
1465.	GENERAL ELECTRIC	PUNE
1466.	GENERAL MOTORS	BANGALORE
1467.	GENERAL MOTORS TECHNICAL CENTER INDIA	BANGALORE
1468.	GENESYS BIOLOGICS PVT. LTD.	HYDERABAD
1469.	GENESYS TELECOM	MUMBAI
1470.	GENIE SOFT SYSTEM	THANE
1471.	GENNEXT PLM PVT LTD	CHENNAI
1472.	GENPACT	BANGALORE
1473.	GENPACT	GURGAON
1474.	GENPACT	HYDERABAD
1475.	GENPACT	NOIDA
1476.	GENPACT PHARMALINK CONSULTING	AHMEDABAD

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1477.	GEOCONSULT INDIA PVT LTD	GURGAON
1478.	GEOMATIC ENGINEERING	BANGALORE
1479.	GEOMATIC ENGINEERING	PUNE
1480.	GERDAU STEEL INDIA LTD.	TADIPATRI
1481.	GERDAU STEEL INDIA LTD.	TADIPATRI
1482.	GESTAMP AUTOMOTIVE CHENNAI LTD	CHENNAI
1483.	GEXCON INDIA PVT LTD	PUNE
1484.	GGS ENGINEERING SERVICES	CHENNAI
1485.	GGS ENGINEERING SERVICES	PUNE
1486.	GHMC	HYDERABAD
1487.	GIA INDIA LABORATORY PVT. LTD	MUMBAI
1488.	GIESECKE & DEVRIENT PVT. LTD.	PUNE
1489.	GILBARCO VEEDER ROOT INDIA PVT LTD	MUMBAI
1490.	GILBARCO VEEDER-ROOT	KOLKATA
1491.	GILBARCO VEEDER-ROOT	MUMBAI
1492.	GIMPEX(P) LTD	BANGALORE
1493.	GIRIKON SOLUTIONS PRIVATE LTD.	NOIDA
1494.	GIRNAR SOFTWARE PVT LTD	JAIPUR
1495.	GIZ	BANGALORE
1496.	GKN AEROSPACE INDIA	BANGALORE
1497.	GKN SINTER METALS INDIA	PUNE
1498.	GL&V INDIA PVT LTD	PUNE
1499.	GLAXO SMITHKLINE R&D HYDERABAD	HYDERABAD
1500.	GLENMARK PHARMACEUTICAL LTD	GOA
1501.	GLOBAL ANALYTICS	CHENNAI
1502.	GLOBAL CONVEYOR SYSTEMS	VASCO DA GAMA
1503.	GLOBAL EDGE SOFTWARE	BANGALORE
1504.	GLOBAL EDGE SOFTWARE	HYDERABAD
1505.	GLOBAL FOUNDRIES	BANGALORE
1506.	GLOBAL HEALTH PRIVATE LTD.	GURGAON
1507.	GLOBAL HOSPITAL	HYDERABAD
1508.	GLOBAL PHARMATECH PVT LTD	BANGALORE
1509.	GLOBAL PHARMATECH PVT LTD	HOSUR
1510.	GLOBAL PROCESS SYSTEM	ABU DHABI
1511.	GLOBAL TELECOMMUNICATION PVT LTD	NEW DELHI
1512.	GLOBALE CAPO INDIA. PVT. LTD.	THANE
1513.	GLOBALFOUNDRIES SINGAPORE PTE LTD	SINGAPORE
1514.	GLOBALLOGIC INDIA LTD	BANGALORE
1515.	GLOBALLOGIC INDIA PVT LTD	NAGPUR
1516.	GLOBALLOGIC PVT LTD.	NOIDA
1517.	GLOBANT INDIA PVT. LTD.	PUNE
1518.	GLOCHEM INDUSTRIES PRIVATE LTD.	HYDERABAD
1519.	GM TECH CENTER	BANGALORE
1520.	GMAX AUTO LTD	BAWAL
1521.	GMCH UDAIPUR	GMCH
1522.	GMMCO LTD.	CHENNAI
1523.	GMMCO LTD.	GOA
1524.	GOA POLLUTION CONTROL BOARD	GOA
1525.	GOA POLLUTION CONTROL BOARD	PANAJI
1526.	GOA SHIPYARD LTD.	VASCO DA GAMA
1527.	GOA STATE INFRASTRUCTURE DEV CORP.LTD	PANAJI
1528.	GOA STATE INFRASTRUCTURE DEV CORP.LTD	PANAJI
1529.	GODADDY	GURGAON
1530.	GODREJ	MUMBAI
1531.	GODREJ	PUNE
1532.	GODREJ	VADODARA
1533.	GODREJ & BOYCE MFG CO LTD	BANGALORE

S.NO.	NAME	LOCATION
1534.	GODREJ & BOYCE MFG CO LTD	CHENNAI
1535.	GODREJ & BOYCE MFG CO LTD	HARIDWAR
1536.	GODREJ & BOYCE MFG CO LTD	KHOPOLI
1537.	GODREJ & BOYCE MFG CO LTD	KOLKATA
1538.	GODREJ & BOYCE MFG CO LTD	MAPUSA
1539.	GODREJ & BOYCE MFG CO LTD	MUMBAI
1540.	GODREJ & BOYCE MFG CO LTD	PUNE
1541.	GODREJ & BOYCE MFG CO LTD	VADODARA
1542.	GOLDMAN SACHS	BANGALORE
1543.	GOODRICH AEROSPACE SERVICES PRIVATE LTD.	BANGALORE
1544.	GOODS AND SERVICES TAX NETWORK	DELHI
1545.	GOODWORKLABS PVT LTD	BANGALORE
1546.	GOODYEAR SATL	AURANGABAD
1547.	GOVERNMENT	JODHPUR
1548.	GOVERNMENT FLYING TRAINING SCHOOL	BANGALORE
1549.	GOVERNMENT INSTITUTE OF MEDICAL SCIENCES	NOIDA
1550.	GOVERNMENT OF HARYANA	CHANDIGARH
1551.	GOVERNMENT OF MAHARASHTRA	MUMBAI
1552.	GOVT COLLEGE ARTS,SCIENCE & COMMERCE -	GOA
1553.	GOVT MEDICAL COLLEGE & HOSPITAL	JAMMU AND KASHMIR
1554.	GOVT OF INDIA	GURDASPUR
1555.	GOVT OF INDIA	NEW DELHI
1556.	GOVT OF RAJASTHAN (RAS)	JAIPUR
1557.	GOVT. COLLEGE OF ARTS,SC & COMMERCE	MARCELA GOA
1558.	GOVT. COLLEGE OF ENGG.,KALAHANDI,BHAWANI	BHAWANIPATNA
1559.	GOVT. ENGINEERING COLLEGE,JAGDALPUR	JAGDALPUR
1560.	GOVT. OF INDIA,MEITY,NATIONAL INFORMAT	NEW DELHI
1561.	GOWRA ENGINEERING TECHNOLOGIES PRIVATE L	GURGAON
1562.	GRAEBERT INDIA SOFTWARE PRIVATE LTD.	NOIDA
1563.	GRAMEEN KOTA FINANCIAL SERVICE PVT. LTD	BANGALORE
1564.	GRAMIN BANK OF ARYAVART	ETAH
1565.	GRANULES OMNICHEM PVT LTD	VISAKHAPATNAM
1566.	GRAPHENE SEMICONDUCTOR	BANGALORE
1567.	GRASIMS JANASEVA TRUST HOSPITAL	DAVANAGERE
1568.	GREAT INNOVUS SOLUTION PRIVATE LTD.	MADURAI
1569.	GREAT LAKES INSTITUTE OF MANAGEMENT	GURGAON
1570.	GREAT SOFTWARE LABORATORY PVT LTD	PUNE
1571.	GREEN CARRIER CONSULTANCY AND TECH SOLUTIONS	HYDERABAD
1572.	GREENLINE DELMARK PRIVATE LTD.	KHARAGPUR
1573.	GREENSCAPES LANDSCAPES & MAINTENANCE CONTRACTING	DUBAI
1574.	GREENTURN IDEA FACTORY	COCHIN
1575.	GREY ORANGE INDIA PVT LTD	GURGAON
1576.	GRIFFIN PROJECT DEVELOPMENT CONSULTANT	DUBAI
1577.	GRIT INNOVATION SOFTWARE PVT LTD	HYDERABAD
1578.	GROUND WATER DEPARTMENT	JHUNJHUNU
1579.	GRUPO COSMOS INDIA PRIVATE LTD.	CHENNAI
1580.	GS ENGINEERING & CONSTRUCTION DELHI PVT. LTD	SURAT
1581.	GS LAB	PUNE
1582.	GSFC LTD.	VADODARA
1583.	GSLAB	PUNE
1584.	GT NEXUS AN INFOR COMPANYY	BANGALORE
1585.	GTN ENGINEERING INDIA LTD.	COIMBATORE
1586.	GTTT(MBI) INDIAN NAVY	MUMBAI
1587.	GUARDIAN ZOUJAJ INTERNATIONAL FLOAT GLAS	UAE
1588.	GUAVUS NETWORK SYSTEMS PRIVATE LTD.	GURGAON
1589.	GUILTFREE INDUSTRIES LTD.	KOLKATA
1590.	GULATI STEEL PVT. LTD.	FARIDABAD

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1591.	GULF CONTRACTING CO. WLL	DOHA
1592.	GULF GLASS INDUSTRIES	SHARJAH
1593.	GULF MEP SERVICES	UAE
1594.	GULF OIL LUBRICANTS INDIA LTD.	MUMBAI
1595.	GULF PIPING COMPANY W.L.L.	ABU DHABI
1596.	GULFTAINER COMPANY LTD.	DUBAI
1597.	GUMBI SOFTWARE PVT LTD	BANGALORE
1598.	GURUKRUPA ENTERPRISES	PUNE
1599.	GV TOOL CO.	CHENNAI
1600.	GVK EMERGENCY MANAGEMENT & RESEARCH INST	HYDERABAD
1601.	GVK EMERGENCY MANAGEMENT & RESEARCH INST	MEGHALAYA
1602.	GWYNNIEBEE INDIA PVT LTD	BANGALORE
1603.	GXS INDIA TECHNOLOGY CENTER PVT LTD	BANGALORE
1604.	H.H SHEIKH MOHAMMED BIN RASHID AL MAKTOU	DUBAI
1605.	HABBOUSH GROUP GLOBAL LTD	BAHRAIN
1606.	HADEED, SABIC	JUBAIL
1607.	HAL HELICOPTER MRO DIV	BANGALORE
1608.	HALLIBURTON	MUMBAI
1609.	HALLIBURTON FAR EAST PTE LTD	SINGAPORE
1610.	HALLIBURTON OFFSHORE SERVICES	MUMBAI
1611.	HAMILTON HOUSEWARES PVT LTD.	MUMBAI
1612.	HANON AUTOMOTIVE SYSTEM INDIA P LTD	CHENNAI
1613.	HANON AUTOMOTIVE SYSTEMS INDIA PRIVATE LTD.	BHOPAL
1614.	HANON CLIMATE SYSTEM INDIA LTD.	BHIWADI
1615.	HANSOL LOGISTICS PVT. LTD.	GURGAON
1616.	HAPPIEST MINDS TECHNOLOGIES	BANGALORE
1617.	HARISHANKAR SINGHANIA ELASTOMER AND TYRE RESEARCH	MUMBAI
1618.	HARITA FEHRER LTD.	CHENNAI
1619.	HARITA FEHRER LTD.	HOSUR
1620.	HARITA FEHRER LTD.	PUNE
1621.	HARITA SEATING SYSTEMS LTD.	BANGALORE
1622.	HARITA SEATING SYSTEMS LTD.	DHARWAD
1623.	HARITA SEATING SYSTEMS LTD.	HOSUR
1624.	HARITA TECH SERV LTD.	BANGALORE
1625.	HARITA TECH SERV LTD.	INDORE
1626.	HARITA TECH SERV LTD.	PUNE
1627.	HARLEY DAVIDSON MOTOR COMPANY	BAWAL
1628.	HARLEY DAVIDSON MOTOR COMPANY	GURGAON
1629.	HARMAN CONNECTED SERVICE	BANGALORE
1630.	HARMAN CONNECTED SERVICE	GURGAON
1631.	HARMAN CONNECTED SERVICE	PUNE
1632.	HARMAN INTERNATIONAL	BANGALORE
1633.	HARMAN INTERNATIONAL	PUNE
1634.	HARRISONS MALAYALAM LTD.,AN RPG GROU	COIMBATORE
1635.	HARSCO INDIA PVT LTD	HYDERABAD
1636.	HARTFORD STEAM BOILER INTERNATIONAL GMBH	KUWAIT
1637.	HARVEL IRRIGATIONS PVT. LTD.	NEW DELHI
1638.	HARYANA INDUSTRIES	GURGAON
1639.	HASETRI	MYSORE
1640.	HASHTECH SYSTEMS PVT LTD	PUNE
1641.	HAUTE COTURE	BANGALORE
1642.	HAVELLS INDIA LTD.	FARIDABAD
1643.	HAVELLS INDIA LTD.	NOIDA
1644.	HBL POWER SYSTEMS LTD	HYDERABAD
1645.	HCENTIVE INDIA PVT. LTD.	NOIDA
1646.	HCL TECHNOLOGIES	AHMEDABAD
1647.	HCL TECHNOLOGIES	BANGALORE

S.NO.	NAME	LOCATION
1648.	HCL TECHNOLOGIES	CHENNAI
1649.	HCL TECHNOLOGIES	GUWAHATI
1650.	HCL TECHNOLOGIES	HYDERABAD
1651.	HCL TECHNOLOGIES	KOLKATA
1652.	HCL TECHNOLOGIES	LUCKNOW
1653.	HCL TECHNOLOGIES	NAVALUR
1654.	HCL TECHNOLOGIES	NEW DELHI
1655.	HCL TECHNOLOGIES	NOIDA
1656.	HCL TECHNOLOGIES	PUNE
1657.	HCL TECHNOLOGIES	TOKYO
1658.	HCS	PUNE
1659.	HD INFO PVT LTD	HYDERABAD
1660.	HDFC BANK LTD	GOA
1661.	HDFC BANK LTD	TRICHY
1662.	HDPI	KOLKATA
1663.	HEALTH POINT HOSPITAL	ABU DHABI
1664.	HEALTH SERVICES	KOLLAM
1665.	HEALTH SERVICES	TRIVANDRUM
1666.	HEALTHASYST	BANGALORE
1667.	HEALTHIUM MEDTECH PVT LTD	BANGALORE
1668.	HEALTHLINE PRIVATE LTD.	BANGALORE
1669.	HEAVY ENGINEERING INDUSTRIES & SHIPBUILD	KUWAIT
1670.	HEAVY WATER PLANT MANUGURU	MANUGURU
1671.	HEDRICH VACUUM SYSTEMS (I) PVT. LTD.	BANGALORE
1672.	HEISCO, KUWAIT.	KUWAIT
1673.	HELLA INDIA AUTOMOTIVE PRIVATE LTD.	CHENNAI
1674.	HELLA INDIA AUTOMOTIVE PRIVATE LTD.	PUNE
1675.	HEMARUS THERAPEUTICS LTD.	HYDERABAD
1676.	HENDERSON INTERNATIONAL	DUBAI
1677.	HENKEL ANAND INDIA PRIVATE LTD.	CHENNAI
1678.	HENKEL ANAND INDIA PRIVATE LTD.	GURGAON
1679.	HERE TECHNOLOGIES	PUNE
1680.	HERO FUTURE ENERGIES PVT. LTD	NEW DELHI
1681.	HERO MOTO CORP LTD	GURGAON
1682.	HERO MOTO CORP LTD	JAIPUR
1683.	HERO MOTO CORP LTD	NEEMRANA
1684.	HERRENKNECHT INDIA PVT LTD	CHENNAI
1685.	HESTON KUWAIT (MANPOWER SUPPLY TO KNPC)	KUWAIT
1686.	HETA DATAIN	NAGPUR
1687.	HETERO DRUGS	HYDERABAD
1688.	HEWLETT PACKARD ENTERPRISE	BANGALORE
1689.	HEWLETT PACKARD ENTERPRISE	CHENNAI
1690.	HEWLETT PACKARD ENTERPRISE	GURGAON
1691.	HEWLETT PACKARD ENTERPRISE	MUMBAI
1692.	HEWLETT PACKARD ENTERPRISE	SINGAPORE
1693.	HEXAGON CAPABILITY CENTER INDIA	HYDERABAD
1694.	HEXAWARE TECHNOLOGIES	BANGALORE
1695.	HEXAWARE TECHNOLOGIES	CHENNAI
1696.	HEXAWARE TECHNOLOGIES	MUMBAI
1697.	HEXAWARE TECHNOLOGIES	PUNE
1698.	HFN INC	BANGALORE
1699.	HICAL TECHNOLOGIES PVT LTD	BANGALORE
1700.	HIDI RAE CONSULTING ENGINEERS INC (DUBAI BRA	DUBAI
1701.	HIGHER COLLEGES OF TECHNOLOGY	DUBAI
1702.	HIGHRADIUS	HYDERABAD
1703.	HIGHWAY INDUSTRIES LTD.	LUDHIANA
1704.	HIL	NEEMRANA

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1705.	HIL LTD.	HYDERABAD
1706.	HILLSBOROUGH GENERAL TRADING LLC	MADURAI
1707.	HIMACHAL FUTURISTIC COMMUNICATIONS LTD.	GURGAON
1708.	HIMATSINGKA SEIDE LTD	BANGALORE
1709.	HINDALCO INDUSTRIES LTD	ERNAKULAM
1710.	HINDALCO INDUSTRIES LTD	KOCHI
1711.	HINDUJA FOUNDRIES LTD	CHENNAI
1712.	HINDUJA GLOBAL SOLUTION	BANGALORE
1713.	HINDUJA TECH LTD	CHENNAI
1714.	HINDUSTAN AERONAUTICS LTD.	BANGALORE
1715.	HINDUSTAN COCA COLA BEVERAGES PVT LTD	KARNATAKA
1716.	HINDUSTAN HARDY SPICER LTD	NASHIK
1717.	HINDUSTAN PETROLEUM CORPORATION LTD.	KOCHI
1718.	HINDUSTAN SHIPYARD LTD.,VISAKHAPATNAM	VISAKHAPATNAM
1719.	HINDUSTAN TIMES LEARNING CENTERS LTD.	GURGAON
1720.	HINDUSTAN ZINC LTD.	CHITTORGARH
1721.	HINE HYDRAULICS INDIA PVT LTD	CHENNAI
1722.	HINE HYDRAULICS INDIA PVT LTD	THIRUVALLUR
1723.	HINUSTAN AERONAUTICS LTD.	ODISHA
1724.	HITACHI AUTOMOTIVE SYSTEMS	HOSUR
1725.	HITACHI CONSULTING CORPORATION	HYDERABAD
1726.	HITACHI INDIA PVT LTD	BANGALORE
1727.	HITACHI SOLUTIONS LTD	PUNE
1728.	HITACHI VANTARA PTE LTD	SINGAPORE
1729.	HLL LIFECARE LTD	CHENNAI
1730.	HMC MM AUTO LTD.	GURGAON
1731.	HNG FLOAT GLASS LTD	HALOL
1732.	HNI OFFICE INDIA LTD.	NAGPUR
1733.	HOLTEC ASIA PVT LTD	PUNE
1734.	HOME2THEATRE	BANGALORE
1735.	HONDA CARS INDIA LTD.	ALWAR
1736.	HONDA CARS INDIA LTD.	NOIDA
1737.	HONDA MOTORCYCLE & SCOOTER INDIA PVT LTD	BHIWADI
1738.	HONDA MOTORCYCLE & SCOOTER INDIA PVT LTD	GURGAON
1739.	HONEYWELL	BANGALORE
1740.	HONEYWELL	HADAPSAR PUNE
1741.	HONEYWELL	HYDERABAD
1742.	HONEYWELL AUTOMATION INDIA LTD.	PUNE
1743.	HONEYWELL INDIA PVT LTD	BANGALORE
1744.	HONEYWELL INTERNATIONAL	BANGALORE
1745.	HONEYWELL TECHNOLOGIES	BANGALORE
1746.	HONEYWELL TECHNOLOGIES	CHENNAI
1747.	HONEYWELL TECHNOLOGIES	HYDERABAD
1748.	HONEYWELL TECHNOLOGIES	MADURAI
1749.	HONEYWELL TECHNOLOGIES	PUNE
1750.	HOOQ	GURGAON
1751.	HORIZON ELECTRO SOLUTION PVT LTD	PUNE
1752.	HORTONWORKS INDIA PVT LTD	BANGALORE
1753.	HOSPICLEAN	BANGALORE
1754.	HOWARD FINLEY AL KHALEEJ	ABU DHABI
1755.	HP COMPUTING AND PRINTING SYSTEMS INDIA	BANGALORE
1756.	HP INC	HOODI
1757.	HP INC. R&D	BANGALORE
1758.	HP INDIA SALES PVT LTD	GURGAON
1759.	HP PPS INDIA OPERATIONS PVT LTD	BANGALORE
1760.	HPCL	HYDERABAD
1761.	HPCL MITTAL ENERGY LTD. (AARVI ENCON	BATHINDA



S.NO.	NAME	LOCATION
1762.	HPE	BANGALORE
1763.	HPE	CHENNAI
1764.	HRUSTA TECHNOLOGIES PVT. LTD.	BANGALORE
1765.	HSBC	HYDERABAD
1766.	HSBC	KOLKATA
1767.	HSBC	PUNE
1768.	HSBC ELECTRONIC DATA PROCESSING INDIA PVT LTD	CHENNAI
1769.	HSBC SOFTWARE DEVELOPMENT (INDIA) PVT LT	HYDERABAD
1770.	HSBC SOFTWARE DEVELOPMENT (INDIA) PVT LT	PUNE
1771.	HTRUNK SOFTWARE SOLUTIONS PVT LTD	BANGALORE
1772.	HUAWEI TECHNOLOGIES INDIA PVT LTD	BANGALORE
1773.	HUBNER INTERFACE SYSTEMS INDIA PVT LTD	BANGALORE
1774.	HUGHES SYSTIQUE	GURGAON
1775.	HUMANETICS INNOVATIVE SOLUTIONS	BANGALORE
1776.	HUMANETICS INNOVATIVE SOLUTIONS INDIA PV	BANGALORE
1777.	HUMANITICS DIMENSION SOFTWARE PVT LTD.	NOIDA
1778.	HUNTSMAN INTERNATIONAL INDIA (PVT) LTD	VADODARA
1779.	HUNTSMAN INTERNATIONAL INDIA PVT LTD.	VADODARA
1780.	HURITS CONSULTING PVT.,LTD.	BANGALORE
1781.	HUSCO HYDRAULICS PVT LTD	PUNE
1782.	HUSCO PVT. LTD.	PUNE
1783.	HUSYS CONSULTING LTD	BANGALORE
1784.	HUTCHINSON SA INDIA LIAISON OFFICE	GURGAON
1785.	HYDAC INDIA PVT LTD	PUNE
1786.	HYFLUX ENGINEERING(INDIA) PVT. LTD.	PUNE
1787.	HYFLUX PTE LTD	SINGAPORE
1788.	HYPERGRID	DELHI
1789.	HYSTER-YALE LIFT TRUCKS INDIA PVT. LTD.	PUNE
1790.	HYUNDAI MOBIS	CHENNAI
1791.	HYUNDAI MOBIS	HYDERABAD
1792.	HYUNDAI MOTOR ENGINEERING LTD	CHENNAI
1793.	HYUNDAI MOTOR INDIA ENGG PVT LTD	HYDERABAD
1794.	HYUNDAI MOTOR INDIA ENGINEERING PRIVATE	CHENNAI
1795.	HYUNDAI MOTOR INDIA ENGINEERING PVT LTD	CHENNAI
1796.	HYUNDAI MOTOR INDIA ENGINNERING PRIVATE	CHENNAI
1797.	HYUNDAI MOTOR INDIA LTD.	CHENNAI
1798.	I LABS GLOBAL	BANGALORE
1799.	I SHARE BUSINESS PRIVATE LTD.	JAIPUR
1800.	I&B AUTOMATION & CONTROLS PVT LTD.	NOIDA
1801.	I NAUTIX TECHNOLOGIES INDIA PRIVATE LIMI	CHENNAI
1802.	I2I TELESOLUTIONS & TELEMEDICINE PVT LTD	BANGALORE
1803.	IAF	AMBALA
1804.	IAF	DELHI
1805.	IAF	KOCHI
1806.	IAF	NEW DELHI
1807.	IBASET INDIA PVT LTD.	AHMEDABAD
1808.	IBM INDIA	BANGALORE
1809.	IBM INDIA	CHENNAI
1810.	IBM INDIA	DELHI
1811.	IBM INDIA	GURGAON
1812.	IBM INDIA	HYDERABAD
1813.	IBM INDIA	KOLKATA
1814.	IBM INDIA	MUMBAI
1815.	IBM INDIA	NOIDA
1816.	IBM INDIA	PUNE
1817.	IBM SINGAPORE PTE. LTD.	SINGAPORE
1818.	IBS SOFTWARE SERVICES	TRIVANDRUM

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1819.	IBUILDING AUTOMATION PVT. LTD	CHENNAI
1820.	ICE (ASIA) PVT. LTD.	MUMBAI
1821.	ICERTIS	PUNE
1822.	ICICI BANK	JAIPUR
1823.	ICRA MANAGEMENT CONSULTANCY SERVICES LTD	MUMBAI
1824.	IDC ENGINEERING PVT LTD	BANGALORE
1825.	IDEA CELLULAR LTD	COCHIN
1826.	IDEA CELLULAR LTD	ERNAKULAM
1827.	IDEA CELLULAR LTD	KOCHI
1828.	IDEA CELLULAR LTD	KOLKATA
1829.	IDEA CELLULAR LTD	LUCKNOW
1830.	IDEA CELLULAR LTD	TRIVANDRUM
1831.	IDEA ENTITY TECH SOLUTIONS	HYDERABAD
1832.	IDEAS - A SAS COMPANY	PUNE
1833.	IDEAS REVENUE SOLUTIONS	PUNE
1834.	IDEAZ INFINITE	MUMBAI
1835.	IDRIVE SOFTWARE (INDIA) PVT LTD	BANGALORE
1836.	IFB AUTOMOTIVE PRIVATE LTD.	CHENNAI
1837.	IFCI LTD.	NEW DELHI
1838.	IFS SOLUTIONS INDIA PVT. LTD.	NOIDA
1839.	IGATE GLOBAL SOLUTIONS	BANGALORE
1840.	IGNITARIUM TECHNOLOGY SOLUTIONS PVT LTD	BANGALORE
1841.	IGUS (INDIA) PVT LTD	BANGALORE
1842.	IHS MARKIT	GURGAON
1843.	IITM	CHENNAI
1844.	IKABIT SOFTWARE SYSTEMS PVT. LTD	BANGALORE
1845.	IKK GROUP OF COMPANIES,SAUDI ARABIA	SAUDI ARABIA
1846.	IL&FS ENGINEERING	DEHRADUN
1847.	IL&FS ENGINEERING	HYDERABAD
1848.	IMAGINATION TECHNOLOGIES	HYDERABAD
1849.	IMARSH TECHNOLOGIES	MUMBAI
1850.	IMAX DIAGNOSTICS	BANGALORE
1851.	IMI CCI	BANGALORE
1852.	IMI PRECISION ENGINEERING	NOIDA
1853.	IMINDSNTHOUGHTS TECHNOLOGY SOLUTIONS AND	BANGALORE
1854.	IMPETUS INFOTECH INDIA PVT LTD	BANGALORE
1855.	IMPETUS INFOTECH(INDIA) PVT LTD	BANGALORE
1856.	IMPLANTAIRE TECHNOLOGIES (I) PVT LTD	MYSORE
1857.	IMS GHAZIABAD	GHAZIABAD
1858.	IMS,NOIDA	NOIDA
1859.	INA BEARINGS INDIA PVT LTD.	PUNE
1860.	INAPP INFORMATION TECHNOLOGIES (INDIA) P	THIRUVANANTHAPURAM
1861.	INAPP INFORMATION TECHNOLOGY	THIRUVANANTHAPURAM
1862.	INATECH INFO SOLUTIONS	CHENNAI
1863.	INAUTIX	CHENNAI
1864.	INAUTIX	HYDERABAD
1865.	INAUTIX	PUNE
1866.	INCAP CMS PVT LTD	BANGALORE
1867.	INCEDO	CHENNAI
1868.	INCESSANT TECHNOLOGIES	HYDERABAD
1869.	INCREX	HYDERABAD
1870.	INDECOMM GLOBAL SERVICES	BANGALORE
1871.	INDEPENDENT PROFESSIONAL COSNULTANT	MUMBAI
1872.	INDIA AIR FORCE	BANGALORE
1873.	INDIA IMPEX LOGISTICS PVT LTD	CHENNAI
1874.	INDIA JAPAN LIGHTING PRIVATE LTD.	CHENNAI
1875.	INDIA JAPAN LIGHTING PRIVATE LTD.	THIRUVALLUR

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1876.	INDIA MEDTRONIC PVT LTD	BANGALORE
1877.	INDIA WORLD TECHNOLOGIES PVT. LTD.	GURGAON
1878.	INDIA YAMAHA MOTORS PVT LTD	CHENNAI
1879.	INDIAN AIR FORCE	AGRA
1880.	INDIAN AIR FORCE	ALLAHABAD
1881.	INDIAN AIR FORCE	ASSAM
1882.	INDIAN AIR FORCE	BANGALORE
1883.	INDIAN AIR FORCE	BARRACKPORE
1884.	INDIAN AIR FORCE	BHOPAL
1885.	INDIAN AIR FORCE	BHUJ
1886.	INDIAN AIR FORCE	CARNICOBAR
1887.	INDIAN AIR FORCE	CHABUA
1888.	INDIAN AIR FORCE	CHANDIGARH
1889.	INDIAN AIR FORCE	CHENNAI
1890.	INDIAN AIR FORCE	COIMBATORE
1891.	INDIAN AIR FORCE	DARBHANGA
1892.	INDIAN AIR FORCE	DELHI
1893.	INDIAN AIR FORCE	FEROZEPUR
1894.	INDIAN AIR FORCE	GUWAHATI
1895.	INDIAN AIR FORCE	HINDAN
1896.	INDIAN AIR FORCE	HYDERABAD
1897.	INDIAN AIR FORCE	JAMNAGAR
1898.	INDIAN AIR FORCE	JODHPUR
1899.	INDIAN AIR FORCE	LEH
1900.	INDIAN AIR FORCE	MOUNT ABU
1901.	INDIAN AIR FORCE	NAINITAL
1902.	INDIAN AIR FORCE	NASHIK
1903.	INDIAN AIR FORCE	NEW DELHI
1904.	INDIAN AIR FORCE	PATHANKOT
1905.	INDIAN AIR FORCE	PUNE
1906.	INDIAN AIR FORCE	SURATGARH
1907.	INDIAN AIR FORCE	THIRUVANANTHAPURAM
1908.	INDIAN ARMY	BAREILLY
1909.	INDIAN ARMY	BHOPAL
1910.	INDIAN ARMY	CHANDIGARH
1911.	INDIAN ARMY	DELHI
1912.	INDIAN ARMY	DINJAN
1913.	INDIAN ARMY	HYDERABAD
1914.	INDIAN ARMY	JAISALMER
1915.	INDIAN ARMY	JODHPUR
1916.	INDIAN ARMY	KASALI
1917.	INDIAN ARMY	MADHYA PRADESH
1918.	INDIAN ARMY	MANESAR
1919.	INDIAN ARMY	MANIPUR
1920.	INDIAN ARMY	MEERUT
1921.	INDIAN ARMY	NAINITAL
1922.	INDIAN ARMY	NEW DELHI
1923.	INDIAN ARMY	PUNE
1924.	INDIAN ARMY	RAJASTHAN
1925.	INDIAN ARMY	SECUNDERABAD
1926.	INDIAN ARMY	SHILLONG
1927.	INDIAN ARMY	SHIMLA
1928.	INDIAN ARMY	SRI GANGANAGAR
1929.	INDIAN ARMY	SRINAGAR
1930.	INDIAN ARMY	UDHAMPUR
1931.	INDIAN COAST GUARD	PORBANDAR
1932.	INDIAN HOTELS COMPANY LTD.	MUMBAI

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
1933.	INDIAN INSTITUTE OF ASTROPHYSICS	BANGALORE
1934.	INDIAN INSTITUTE OF MANAGEMENT BANGLORE	BANGALORE
1935.	INDIAN INSTITUTE OF MANAGEMENT LUCKNOW	NOIDA
1936.	INDIAN INSTITUTE OF SCIENCE EDUCATION AND RE	PUNE
1937.	INDIAN INSTITUTE OF SPICES RESEARCH	KERALA
1938.	INDIAN INSTITUTE OF TECHNOLOGY ROORKEE	HYDERABAD
1939.	INDIAN INSTITUTE OF TECHNOLOGY ROPAR	RUPNAGAR
1940.	INDIAN INTITUTE OF TECHNOLOGY BHUBANESWA	BHUBANESWAR
1941.	INDIAN NAVY	BANGALORE
1942.	INDIAN NAVY	GOA
1943.	INDIAN NAVY	KOCHI
1944.	INDIAN NAVY	MUMBAI
1945.	INDIAN NAVY	NEW DELHI
1946.	INDIAN NAVY	PUNE
1947.	INDIAN NAVY	VISAKHAPATNAM
1948.	INDIAN RAILWAYS	JAIPUR
1949.	INDIAN SPACE RESEARCH ORGANISATION (ISRO	BANGALORE
1950.	INDIAN SPACE RESEARCH ORGANISATION (ISRO	MAHENDRAGIRI, TAMIL NADU
1951.	INDIAN SPACE RESEARCH ORGANISATION (ISRO	SRIHARIKOTA
1952.	INDIAN SPINAL INJURIES CENTRE	DELHI
1953.	INDIAN SUCROSE LTD.	NEW DELHI
1954.	INDIANA CONVEYORS PRIVATE LTD.	KOLKATA
1955.	INDIRA GANDHI INSTITUTE OF DENTAL SCIENC	PUDUCHERRY
1956.	INDO TIBBETAN BORDER POLICE FORCE	KANPUR
1957.	INDOFIL INDUSTRIES LTD	MUMBAI
1958.	INDORE COMPOSITE PVT. LTD.	AMBERNATH
1959.	INDUMATI HR FACILITIES PVT LTD	GURGAON
1960.	INDUS IND BANK	AHMEDABAD
1961.	INDUS INTERNATIONAL FZC	SHARJAH
1962.	INDUS TEQSITE	CHENNAI
1963.	INDUS TOWERS LTD	GURGAON
1964.	INDUS VALLEY PARTNERS	NOIDA
1965.	INDUSTRIAL ELECTRIC SPARE CENTRE	CHENNAI
1966.	INEDA SYSTEMS	BANGALORE
1967.	INEDA SYSTEMS PVT. LTD.	HYDERABAD
1968.	I-NET SOFTWARE SOLUTIONS	HYDERABAD
1969.	INFILL LIFE SCIENCES	AURANGABAD
1970.	INFINEON TECHNOLOGIES INDIA PVT LTD	BANGALORE
1971.	INFINEON TECHNOLOGIES INDIA PVT LTD	NEW DELHI
1972.	INFINERA	BANGALORE
1973.	INFINERA IND PVT LTD	BANGALORE
1974.	INFINERA INDIA PVT LTD	BANGALORE
1975.	INFINITE COMPUTER SOLUTIONS	BANGALORE
1976.	INFINITY AUTOMATED SOLUTIONS PVT LTD	PUNE
1977.	INFO EDGE (INDIA) LTD.	NOIDA
1978.	INFONAS WLL	BAHRAIN
1979.	INFOOBJECTS	JAIPUR
1980.	INFOPRO LEARNING	NOIDA
1981.	INFOR GLOBAL SOLUTION PVT LTD	BANGALORE
1982.	INFOR GLOBAL SOLUTION PVT LTD	HYDERABAD
1983.	INFOR GLOBAL SOLUTION PVT LTD	PUNE
1984.	INFORMATICA BUSINESS SOLUTION	BANGALORE
1985.	INFOSTRETCH CORPORATION	AHMEDABAD
1986.	INFOSTRETCH CORPORATION	PUNE
1987.	INFOSYS LTD.	BANGALORE
1988.	INFOSYS LTD.	BHUBANESWAR

S.NO.	NAME	LOCATION
1989.	INFOSYS LTD.	CHANDIGARH
1990.	INFOSYS LTD.	CHENGALPET
1991.	INFOSYS LTD.	CHENNAI
1992.	INFOSYS LTD.	COIMBATORE
1993.	INFOSYS LTD.	GURGAON
1994.	INFOSYS LTD.	HYDERABAD
1995.	INFOSYS LTD.	JAIPUR
1996.	INFOSYS LTD.	MANGALURU
1997.	INFOSYS LTD.	MUMBAI
1998.	INFOSYS LTD.	MYSORE
1999.	INFOSYS LTD.	NOIDA
2000.	INFOSYS LTD.	PUNE
2001.	INFOSYS LTD.	THIRUVANANTHAPURAM
2002.	INFOSYS LTD.	TRIVANDRUM
2003.	INFOVENTURES SYSTEMS & SERVICES	QATAR
2004.	INGEROLL RAND TECHNOLOGIES AND SERVICES	BANGALORE
2005.	INGEROLL RAND TECHNOLOGIES AND SERVICES	CHENNAI
2006.	INGERSOLL RAND TECHNOLOGIES AND SERVICES	BANGALORE
2007.	INGERSOLL RAND TECHNOLOGIES AND SERVICES	CHENNAI
2008.	INGRAM MICRO INDIA PRIVATE LTD.	CHENNAI
2009.	INJAZAT DATA SYSTEMS	ABU DHABI
2010.	INMANTEC INSTITUTIONS	GHAZIABAD
2011.	INNODATA INDIA PRIVATE LTD.	NOIDA
2012.	INNOHABIT TECHNOLOGIES PVT LTD	BANGALORE
2013.	INNOKON LABS	CHENNAI
2014.	INNOMINDS	HYDERABAD
2015.	INNOV8 INTERIORS LLC	DUBAI
2016.	INNOVA RUBBERS PVT LTD	NASHIK
2017.	INNOVA SOLUTIONS	CHENNAI
2018.	INNOVATIONS GROUP	SHARJAH
2019.	INNOVENT ENGINEERING SOLUTIONS PVT LTD	DELHI
2020.	INSPOP.COM LTD. (INDIA BRANCH OFFICE)	GURGAON
2021.	INSTAVERITAS	DELHI
2022.	INSTITUTE OF LIVER AND BILIARY SCIENCES	NEW DELHI
2023.	INSTITUTE OF TECHNOLOGY & SCIENCE (ITS)	GHAZIABAD
2024.	INTEGRATED GAS CONTROLS TECHNOLOGIES PVT	HYDERABAD
2025.	INTEGRATED SOFTWARE SYSTEMS	FARIDABAD
2026.	INTEGRATED SOFTWARE SYSTEMS	NOIDA
2027.	INTEL INDIA PVT. LTD.	BANGALORE
2028.	INTEL INDIA PVT. LTD.	MARATHALLI
2029.	INTEL INDIA PVT. LTD.	RAMBUS
2030.	INTEL MOBILE COMMUNICATION INDIA PVT LTD	BANGALORE
2031.	INTELENET GLOBAL SERVICES	HYDERABAD
2032.	INTELLECT DESIGN	CHENNAI
2033.	INTELLECT DESIGN ARENA LTD	CHENNAI
2034.	INTELLIFOUR SOFTWARE PVT. LTD.	PUNE
2035.	INTENSE TECHNOLOGIES LTD.	HYDERABAD
2036.	INTER UNIVERSITY CENTRE FOR ASTRONOMY AND ASTROPHY	PUNE
2037.	INTERLACE INDIA PRIVATE LTD.	CHENNAI
2038.	INTERNATIONAL AIRCON PVT LTD	NEW DELHI
2039.	INTERNATIONAL CENTRE FOR AUTOMOTIVE TECH	GURGAON
2040.	INTERNATIONAL CENTRE FOR AUTOMOTIVE TECH	MANESAR
2041.	INTERNATIONAL DENTAL HOSPITAL	VELLORE
2042.	INTERNATIONAL SCHOOL OF ENGINEERING PVT LTD	HYDERABAD
2043.	INTERPUMP HYDRAULICS INDIA PVT LTD	HOSUR
2044.	INTEVA PRODUCTS INDIA AUTOMOTIVE PVT LTD	PUNE
2045.	INTRAEDEGE TECHNOLOGIES PVT LTD	PUNE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2046.	INTUIT INC.	BANGALORE
2047.	INTUIT INDIA	BANGALORE
2048.	INTUIT PRODUCT DEVELOPMENT CENTER PVT LT	BANGALORE
2049.	INVECAS	HYDERABAD
2050.	INVECAS TECHNOLOGIES PVT LTD	HYDERABAD
2051.	INVENSOFTECHNOLOGIES PRIVATE LTD.	MYSORE
2052.	INVENT WELD AUTOMATION	CHENNAI
2053.	INVENTO LABS PVT LTD	HYDERABAD
2054.	INVESCO INDIA PRIVATE LTD.	HYDERABAD
2055.	INVISTA SINGAPORE FIBRES PTE LTD	SINGAPORE
2056.	ION TRADING INDIA PVT. LTD.	NOIDA
2057.	IP CORE SOLUTIONS PRIVATE LTD.	BANGALORE
2058.	IP INFUSION SOFTWARE INDIA PRIVATE LIMIT	BANGALORE
2059.	IPRC MAHENDRAGIRI TAMILNADU	MAHENDRAGIRI
2060.	IPROSONIC SYSTEMS PVT. LTD.	GURGAON
2061.	IQVIA (QUINTILESIMS)	BANGALORE
2062.	ISAM KHAIRY KABBANI PLASTIC AND INSULATION FACTORY	DAMMAM
2063.	ISGEC HEAVY ENGINEERING LTD.	NOIDA
2064.	ISGEC HEAVY ENGINEERING LTD.	YAMUNA NAGAR
2065.	ISHAN NETSOL PVT. LTD	RAJKOT
2066.	ISHWAR METALS	WANI
2067.	ISORIS TECHNOLOGY SOLUTIONS PVT LTD	BANGALORE
2068.	ISPARTA MENSUCAT SAN VE TIC	SALEM
2069.	ISRO	BANGALORE
2070.	ISRO	HYDERABAD
2071.	ISRO PROPULSION COMPLEX	MAHENDRAGIRI, TAMIL NADU
2072.	ISRO SATELLITE CENTRE,BENGALURU	BANGALORE
2073.	ISUZU MOTORS INDIA PRIVATE LTD.	CHENNAI
2074.	ISUZU MOTORS INDIA PVT LTD	CHENNAI
2075.	ISUZU MOTORS INDIA PVT LTD	KANCHIPURAM
2076.	IT CONVERGENCE PROFESSIONAL SERVICES PVT LTD	HYDERABAD
2077.	ITC INFOTECH INDIA LTD	BANGALORE
2078.	ITC INFOTECH INDIA LTD	PUNE
2079.	ITC INFOTECH INDIA PVT LTD	BANGALORE
2080.	ITC LTD.	BANGALORE
2081.	ITC LTD.	HARIDWAR
2082.	ITC LTD.	KOLKATA
2083.	ITC PSPD	BHADRACHALAM
2084.	ITC PSPD	CHENNAI
2085.	ITER-INDIA,INSTITUTE FOR PLASMA RESEARC	AHMEDABAD
2086.	ITRA	DELHI
2087.	ITRUST CENTRE FOR RESEARCH IN CYBER SECURITY, SING	PUKHRAYAN
2088.	ITT INC.	VADODARA
2089.	ITTIAM SYSTEMS PVT. LTD.	BANGALORE
2090.	ITW INDIA PVT LTD	PUNE
2091.	IVY SOFTWARE	HYDERABAD
2092.	J S W ENERGY LTD.	MUMBAI
2093.	J S W STEEL LTD.	BELLARY
2094.	J&S RESEARCH AND INNOVATIONS	NEW DELHI
2095.	JABIL CIRCUIT SDN. BHD.	BAYAN LEPAS
2096.	JAITECH POWER PROJECT PVT. LTD.	VELLORE
2097.	JAMMU DEVELOPMENT AUTHORITY	JAMMU
2098.	JAMNA AUTO INDUSTRIES LTD.	GWALIOR
2099.	JANANI MOULDINGS PVT. LTD.	CHENNAI
2100.	JANATICS INDIA PVT. LTD.	GANDHINAGAR
2101.	JANUS TECHNOLOGIES	CHENNAI

S.NO.	NAME	LOCATION
2102.	JAYPEE CEMENT CORPORATION LTD.	GUNTUR
2103.	JBK TECHNOLOGY LTD.	DELHI
2104.	JBK CONTROLS	DOHA
2105.	JCB INDIA DESIGN CENTER	PUNE
2106.	JCB INDIA LTD.	CHENNAI
2107.	JCB INDIA LTD.	FARIDABAD
2108.	JCB INDIA LTD.	PUNE
2109.	JCB MANUFACTURING LTD.	PUNE
2110.	JEHANGIR HOSPITAL	PUNE
2111.	JENESYS TECHNOLOGIES	BENGALURU
2112.	JGC GULF INTERNATIONAL COMPANY LTD.	MUMBAI
2113.	JHAJJAR POWER LTD.	JHAJJAR
2114.	JINDAL SAW LTD.	MUNDRA
2115.	JINDAL STAINLESS LTD.	JAJPUR
2116.	JINDAL STEEL & POWER LTD.	PARALAKHEMUNDI
2117.	JK ORGANISATION	AGRA
2118.	JK TYRE & INDUSTRIES LTD.	CHENNAI
2119.	JK TYRE & INDUSTRIES LTD.	RAJSAMAND
2120.	JMC PROJECTS (I) LTD.	DHARWAD
2121.	JOHN DEERE INDIA PVT. LTD.	HYDERABAD
2122.	JOHN DEERE INDIA PVT. LTD.	PUNE
2123.	JOHNCRANE SEALING SYSTEM INDIA PVT. LTD.	BENGALURU
2124.	JOHNSON CONTROLS (I) PVT. LTD.	GURGAON
2125.	JOHNSON CONTROLS (I) PVT. LTD.	PUNE
2126.	JOHNSON CONTROLS AUTOMOTIVE LTD.	PUNE
2127.	JOHNSON ELECTRIC PVT. LTD.	TRICHY
2128.	JOTUN SAUDIA CO. LTD.	JEDDAH
2129.	JOTUN U.A.E LTD. (L.L.C)	DUBAI
2130.	JP MORGAN INDIA PVT. LTD.	BENGALURU
2131.	JP MORGAN INDIA PVT. LTD.	DEWAS
2132.	JP MORGAN INDIA PVT. LTD.	MUMBAI
2133.	JRD INTERNATIONAL	JABEL ALI
2134.	JRL MINING P LTD.	DHANBAD
2135.	JSOFT SOLUTIONS LTD.	MUMBAI
2136.	JSW STEEL LTD.	BELLARY
2137.	JSW STEEL LTD.	SALEM
2138.	JTEKT SONA AUTOMOTIVE INDIA LTD.	NEW DELHI
2139.	JUNIPER NETWORKS INDIA PVT. LTD.	BENGALURU
2140.	JUPITER LIFELINE HOSPITAL, THANE	THANE
2141.	JURONG SHIPYARD PTE LTD.	SINGAPORE
2142.	JVMR INDUSTRIES	BENGALURU
2143.	K2 INC.	SOLAPUR
2144.	KAAR TECHNOLOGIES INDIA PVT. LTD.	CHENNAI
2145.	KABELSCHLEPP INDIA PVT. LTD.	TIRUPPUR
2146.	KADIMI SPECIAL STEELS PVT. LTD.	THOOTHUKUDI
2147.	KAILASH VAHAN UDYOG LTD.	PUNE
2148.	KALPENA INDUSTRIES LTD.	AHMEDABAD
2149.	KAR MOBILES LTD.	HOSUR
2150.	KAYS HARBOR TECHNOLOGIES	ZIRAKPUR
2151.	KEC INTERNATIONAL LTD.	JAIPUR
2152.	KEC INTERNATIONAL LTD.	TIRUCHIRAPPALLI
2153.	KELE CONTRACTING LLC	VELLORE
2154.	KEMS FORGINGS LTD.	BENGALURU
2155.	KENDRION PUNE PVT. LTD.	PUNE
2156.	KENNAMETAL INDIA LTD.	BENGALURU
2157.	KENNAMETAL SHARED SERVICES PVT. LTD.	BENGALURU
2158.	KENTZ OVER SEAS LTD.	MANGAF

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2159.	KEO INTERNATIONAL CONSULTANTS	RAJAHMUNDRY
2160.	KERAL STATE ELECTRONIC DEVELOPMENT CORP	KOLLAM
2161.	KERAL STATE ELECTRONIC DEVELOPMENT CORP	THIRUVANANTHAPURAM
2162.	KERRY INGREDIENTS INDIA PVT. LTD.	CHENNAI
2163.	KEY INFORMATION TECHNOLOGY	DUBAI
2164.	KEYSIGHT TECHNOLOGIES	FARIDABAD
2165.	KEYSIGHT TECHNOLOGIES	MANESAR
2166.	KEYSIGHT TECHNOLOGIES INTERNATIONAL	NEW DELHI
2167.	KG DESIGN SERVICES PVT. LTD.	COIMBATORE
2168.	KHALIFA UNIVERSITY	ABU DHABI
2169.	KHANSAHEB CIVIL ENGINEERING LLC	AL RASHIDIYA
2170.	KHODAY INDIA LTD.	CHITRADURGA
2171.	KIIT UNIVERSITY	KOLKATA
2172.	KIMMCO	SHUAIBA
2173.	KINPO INTERNATIONAL LTD.	BENGALURU
2174.	KIRAN INSTITUTE OF CAREER EXCELLENCE PVT. LTD.	DELHI
2175.	KIRLOSKAR BROTHERS LTD.	PUNE
2176.	KIRLOSKAR ELECTRIC	BENGALURU
2177.	KIRLOSKAR FERROUS INDUSTRIES LTD.	HOSPET
2178.	KIRLOSKAR OIL ENGINES LTD.	CHENNAI
2179.	KIRLOSKAR OIL ENGINES LTD.	KOLHAPUR
2180.	KIRLOSKAR OIL ENGINES LTD.	PUNE
2181.	KIRLOSKAR PNEUMATIC CO LTD.	PUNE
2182.	KIRLOSKAR TOYOTA TEXTILE MACHINERY	BENGALURU
2183.	KIRODIMAL INSTITUTE OF TECHNOLOGY	RAIGARH
2184.	KITCO LTD.	KOTTAYAM
2185.	KJS INDIA PVT.LTD.	ZAHEERABAD
2186.	KLN ENGINEERING PRODUCTS PVT. LTD.	COIMBATORE
2187.	KNETCO, JOINT OPERATION	THANJAVUR
2188.	KNEXIR CONSULTANTS PVT. LTD.	KALYAN
2189.	KNOWLEDGE PARTNET TECHNOLOGIES PVT. LTD.	CHENNAI
2190.	KODIAK NETWORKS INDIA PVT. LTD.	BENGALURU
2191.	KOMATSU INDIA PVT. LTD.	MADURAI
2192.	KONE ASSARAIN LLC	MUSCAT
2193.	KONE ELEVATORS INDIA PVT. LTD.	CHENNAI
2194.	KONE ELEVATORS INDIA PVT. LTD.	SALEM
2195.	KONE MIDDLE EAST LLC	DUBAI
2196.	KONECRANES SHARED SERVICES INDIA	JUBAIL
2197.	KONECRANES SHARED SERVICES INDIA	PUNE
2198.	KOPERA SOFTWARE PVT. LTD.	PUNE
2199.	KORES INDIA LTD.	PUNE
2200.	KOTHARI MEDICAL CENTRE	KOLKATA
2201.	KPIT CUMMINS INFOSYSTEMS LTD.	BENGALURU
2202.	KPIT TECHNOLOGIES LTD.	BENGALURU
2203.	KPIT TECHNOLOGIES LTD.	CHIDAMBARAM
2204.	KPIT TECHNOLOGIES LTD.	PUNE
2205.	KPMG INDIA	CHENNAI
2206.	KPMG INDIA	HYDERABAD
2207.	KPMG INDIA	NOIDA
2208.	KRISHNA HOSPITAL	BHILWARA
2209.	KRISHNA MARUTI LTD.	GURGAON
2210.	KRONOS SOLUTIONS INDIA PVT. LTD.	NEW DELHI
2211.	KSB PUMPS LTD.	NASHIK
2212.	KSB PUMPS LTD.	PUNE
2213.	KSEB LTD.	TRICHUR
2214.	KSEB LTD.	TRIVANDRUM
2215.	KSK MAHANADI POWER COMPANY LTD.	BILASPUR



S.NO.	NAME	LOCATION
2216.	KUWAIT NATIONAL PETROLEUM COMPANY	MAVELIKARA
2217.	KUWAIT OIL COMPANY SECONDED THROUGH OIL	FAHAHEEL
2218.	L M WINDPOWER TECHNOLOGIES INDIA PVT. LTD.	BENGALURU
2219.	L&T CONSTRUCTION EQUIPMENT PVT. LTD.	BEAWAR
2220.	L&T CONSTRUCTION EQUIPMENT PVT. LTD.	BENGALURU
2221.	L&T CONSTRUCTION EQUIPMENT PVT. LTD.	CHENNAI
2222.	L&T CONSTRUCTION EQUIPMENT PVT. LTD.	COIMBATORE
2223.	L&T CONSTRUCTION EQUIPMENT PVT. LTD.	MANGALORE
2224.	L&T CONSTRUCTION EQUIPMENT PVT. LTD.	PALAKKAD
2225.	L&T CONSTRUCTION EQUIPMENT PVT. LTD.	TIRUNELVELI
2226.	L&T GEOSTRUCTURE	CHENNAI
2227.	L&T HYDROCARBON ENGINEERING LTD.	SHARJAH
2228.	L&T INFOTECH	ALLAHABAD
2229.	L&T INFOTECH	BENGALURU
2230.	L&T INFOTECH	KALYAN
2231.	L&T INTEGRATED ENGINEERING SERVICES	BENGALURU
2232.	L&T LTD.	JALNA
2233.	L&T MHI	CHENNAI
2234.	L&T MHI BOILERS PVT.LTD.	CHENNAI
2235.	L&T MHPS BOILERS PVT. LTD.	CHENNAI
2236.	L&T MODULAR FABRICATION YARD LLC	SOHAR
2237.	L&T OMAN LLC	MUSCAT
2238.	L&T POWER	CHIDAMBARAM
2239.	L&T POWER	INDORE
2240.	L&T TECHNOLOGY SERVICES LTD.	BENGALURU
2241.	L&T TECHNOLOGY SERVICES LTD.	NAVI MUMBAI
2242.	L&T VALVES LTD.	COIMBATORE
2243.	L&T WATER & RENEWABLE ENERGY IC	BENGALURU
2244.	L.V. PRASAD EYE INSTITUTE	HYDERABAD
2245.	LABVANTAGE SOLUTIONS	UTTARPARA
2246.	LAFARGE INDIA PVT. LTD.	CHITTORGARH
2247.	LAHMEYER INTERNATIONAL GMBH	VADALUR
2248.	LAKSHMI MACHINE WORKS LTD.	COIMBATORE
2249.	LALITHA SUPERSPECIALITY HOSPITAL	GUNTUR
2250.	LAM RESEARCH INDIA PVT. LTD.	BENGALURU
2251.	LANCE CADD SOLUTIONS	HYDERABAD
2252.	LANCO POWER ANPARA LTD.	ANPARA
2253.	LANDIS & GYR	GHAZIABAD
2254.	LANPL, ANPARA	SONEBHADRA
2255.	LARSEN & TOUBRO (OMAN) LLC	RUWI
2256.	LARSEN & TOUBRO (OMAN)LLC	THRISSUR
2257.	LARSEN & TOUBRO B&F IC	MUMBAI
2258.	LARSEN & TOUBRO CONSTRUCTION LTD.	CHENNAI
2259.	LARSEN & TOUBRO CONSTRUCTION LTD.	NAVI MUMBAI
2260.	LARSEN & TOUBRO CONSTRUCTION LTD.	THRISSUR
2261.	LARSEN & TOUBRO ECC DIV.	PUNE
2262.	LARSEN & TOUBRO HYDROCARBON ENGINEERING	BHARUCH
2263.	LARSEN & TOUBRO INFOTECH LTD.	BENGALURU
2264.	LARSEN & TOUBRO INFOTECH LTD.	SALEM
2265.	LARSEN & TOUBRO LTD.	ABU DHABI
2266.	LARSEN & TOUBRO LTD.	AKOLA
2267.	LARSEN & TOUBRO LTD.	ANGUL
2268.	LARSEN & TOUBRO LTD.	ARIYALUR
2269.	LARSEN & TOUBRO LTD.	BENGALURU
2270.	LARSEN & TOUBRO LTD.	BHILAI
2271.	LARSEN & TOUBRO LTD.	COIMBATORE
2272.	LARSEN & TOUBRO LTD.	CUDDALORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2273.	LARSEN & TOUBRO LTD.	ERNAKULAM
2274.	LARSEN & TOUBRO LTD.	FARIDABAD
2275.	LARSEN & TOUBRO LTD.	KOLKATA
2276.	LARSEN & TOUBRO LTD.	MANAMADURAI
2277.	LARSEN & TOUBRO LTD.	MUMBAI
2278.	LARSEN & TOUBRO LTD.	MYSORE
2279.	LARSEN & TOUBRO LTD.	NAGPUR
2280.	LARSEN & TOUBRO LTD.	NAIHATI
2281.	LARSEN & TOUBRO LTD.	NASHIK
2282.	LARSEN & TOUBRO LTD.	NAVI MUMBAI
2283.	LARSEN & TOUBRO LTD.	NEW DELHI
2284.	LARSEN & TOUBRO LTD.	RAMNAD
2285.	LARSEN & TOUBRO LTD.	REWA
2286.	LARSEN & TOUBRO LTD.	ROORKEE
2287.	LARSEN & TOUBRO LTD.	RUDRAPRAYAG
2288.	LARSEN & TOUBRO LTD.	SHARJAH
2289.	LARSEN & TOUBRO LTD.	SIVAGANGAI
2290.	LARSEN & TOUBRO LTD.	SURAT
2291.	LARSEN & TOUBRO LTD.	THIRUVARUR
2292.	LARSEN & TOUBRO LTD.	THOLUR
2293.	LARSEN & TOUBRO LTD.	TRICHY
2294.	LARSEN & TOUBRO LTD.	UDUPI
2295.	LARSEN & TOUBRO LTD.	VELLORE
2296.	LARSEN & TOUBRO LTD.	VYARA
2297.	LATIFA SCHOOL FOR GIRLS	DUBAI
2298.	LAW FIRM OF NAREN THAPPETA	BENGALURU
2299.	LEADERS FOR TOMORROW FOUNDATION	NEW DELHI
2300.	LEAR AUTOMOTIVE INDIA PVT. LTD.	CHENNAI
2301.	LEAR AUTOMOTIVE INDIA PVT. LTD.	NAGPUR
2302.	LEAR AUTOMOTIVE INDIA PVT. LTD.	PUNE
2303.	LEGRAND SNC FZE	DUBAI
2304.	LEIGHTON OFFSHORE SDN BHD	KATPADI
2305.	LEITWIND SHRIRAM MFG. LTD.	CHENNAI
2306.	LENNOX INDIA TECHNOLOGY CENTRE	CHENNAI
2307.	LENOVO INDIA PVT. LTD.	BENGALURU
2308.	LEPRO HERBALS (P) LTD.	AGRA
2309.	LETRIKA ROOTS PVT. LTD.	NAMAKKAL
2310.	LG ELECTRONICS INDIA PVT. LTD.	CHENNAI
2311.	LG ELECTRONICS INDIA PVT. LTD.	GURGAON
2312.	LG SOFT INDIA	BENGALURU
2313.	LG SOFT INDIA PVT. LTD.	BENGALURU
2314.	LIEBHERR INDIA PVT. LTD.	NAVI MUMBAI
2315.	LIFESENSE MEDICAL SYSTEMS PVT. LTD.	BENGALURU
2316.	LIFTOFF SOFTWARE INDIA PVT. LTD.	BENGALURU
2317.	LINKEDIN TECHNOLOGY INFORMATION PVT. LTD.	BENGALURU
2318.	LINKS MIDDLEEAST TECHNICAL SERVICES LLC	MUSSAFAH
2319.	LINKWELL TELESYSTEMS PVT. LTD.	HYDERABAD
2320.	LIQUID PROPULSION SYSTEMS CENTRE	TRIVANDRUM
2321.	LIQUID PROPULSION SYSTEM CENTER	THIRUVANANTHAPURAM
2322.	LISLE TECHNOLOGY PARTNERS	BENGALURU
2323.	LISTER TECHNOLOGIES	CHENNAI
2324.	LIVACO INDUSTRIES/OMNISCIENT PROCESS EQU	MUMBAI
2325.	LIVECAREER INDIA PVT. LTD.	DELHI
2326.	LIVECAREER INDIA PVT. LTD.	NOIDA
2327.	LM WIND POWER TECHNOLOGIES INDIA PVT. LTD.	BENGALURU
2328.	LNV TECHNOLOGY PVT. LTD.	HYDERABAD
2329.	LOBO STAFFING SOLUTIONS PVT. LTD.	BENGALURU

S.NO.	NAME	LOCATION
2330.	LOCUZ ENTERPRISE SOLUTIONS	CHENNAI
2331.	LODHA DEVELOPERS PVT. LTD.	NAVI MUMBAI
2332.	LOGICA PVT. LTD.	CHENNAI
2333.	LONZA BIOLOGICS TUAS PTE LTD.	BUKIT BATOK
2334.	LRDE ,DRDO,MIN.OF DEFENCE	BENGALURU
2335.	LRN CONTENT SOLUTIONS PVT. LTD.	GURGAON
2336.	LSI INDIA RESEARCH AND DEVELOPMENT PVT. LTD.	BENGALURU
2337.	LUBRIZOL INDIA PVT. LTD.	MUMBAI
2338.	LUCAS TVS LTD.	NEYVELI
2339.	LUCAS TVS LTD.	REWARI
2340.	LUCAS-TVS LTD.	CHENNAI
2341.	LUK INDIA	DHARMAPURI
2342.	LUPIN LTD.	MUMBAI
2343.	M A QADEER QURAISHI	HYDERABAD
2344.	M. V. G. R. COLLEGE OF ENGINEERING	VISAKHAPATNAM
2345.	MAADEN ALUMINIUM COMPANY	RASLAFFAN
2346.	MAADEN ALUMINIUM COMPANY	SANGLI
2347.	MAARS AUTOCORP PVT. LTD.	GURGAON
2348.	MADRAS ENGINEERING INDUSTRIES PVT. LTD.	CHENNAI
2349.	MADRAS MEDICAL MISSION	CHENNAI
2350.	MADURA FASHION AND LIFESTYLE	BENGALURU
2351.	MAERSK GLOBAL SERVICE CENTRE	MUMBAI
2352.	MAERSK GLOBAL SERVICE CENTRES (I) PVT. LTD.	PUNE
2353.	MAGNA COSMA INTERNATIONAL (I) PVT. LTD.	MALAPPURAM
2354.	MAGNA INFOTECH PVT. LTD.	BENGALURU
2355.	MAGNA INFOTECH PVT. LTD.	FARIDABAD
2356.	MAGNA INFOTECH PVT. LTD.	NEW DELHI
2357.	MAGNA QUEST TECHNOLOGIES LTD.	HYDERABAD
2358.	MAGNA QUEST TECHNOLOGIES LTD.	PRODDATUR
2359.	MAGNETI MARELLI UM ELECTRONIC SYSTEMS PVT LTD.	GURGAON
2360.	MAHIANDRAREVA ELECTRICALS VEHICLES PVT LTD.	WARANGAL
2361.	MAHINDRA & MAHINDRA LTD.	LUCKNOW
2362.	MAHINDRA & MAHINDRA LTD.	NASHIK
2363.	MAHINDRA & MAHINDRA LTD.	PUNE
2364.	MAHINDRA & MAHINDRA LTD.	RUDRAPUR
2365.	MAHINDRA & MAHINDRA LTD.	THANE
2366.	MAHINDRA & MAHINDRA LTD.	ZAHEERABAD
2367.	MAHINDRA AEROSPACE PVT. LTD.	BENGALURU
2368.	MAHINDRA ENGINEERING SERVICES LTD.	PUNE
2369.	MAHINDRA HEAVY ENGINES PVT. LTD.	PUNE
2370.	MAHINDRA REVA ELECTRIC VEHICLE PVT. LTD.	BENGALURU
2371.	MAHINDRA SATYAM	HYDERABAD
2372.	MAHINDRA VEHICLE MANUFACTURERS LTD.	NASHIK
2373.	MAHLE BEHR ENGINEERING SERVICES	CHINCHWAD
2374.	MAHLE BEHR INDIA LTD.	PUNE
2375.	MAHLE FILTER SYSTEM INDIA (P) LTD.	GURGAON
2376.	MAIHAR CEMENT	MAIHAR
2377.	MAKEMYTRIP (I) PVT. LTD.	NEW DELHI
2378.	MAKEMYTRIP.COM	MATHURA
2379.	MAKINO AUTO INDUSTRIES PVT. LTD.	GHAZIABAD
2380.	MAMIGO TECHNOLOGY SOLUTIONS PVT. LTD.	BENGALURU
2381.	MANAPPURAM FINANCE LTD.	THRISSUR
2382.	MANATEC ELECTRONICS PVT. LTD.	KANCHIPURAM
2383.	MANDO AUTOMOTIVE INDIA PVT. LTD.	CHENNAI
2384.	MANDO SOFTTECH INDIA PVT. LTD.	GURGAON
2385.	MANHATTAN ASSOCIATES PVT. LTD.	BENGALURU
2386.	MANITOWOC CRANES, POTAIN INDIA PVT.LTD.	PUNE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2387.	MANLIFT POWER L.L.C	DUBAI
2388.	MANPOWER SERVICES INDIA PVT. LTD.	VILLAPURAM
2389.	MANTHAN SYSTEMS	BENGALURU
2390.	MAPR TECHNOLOGIES RESEARCH & DEVELOPMENT	HYDERABAD
2391.	MARICO LTD.	ERODE
2392.	MARQUIS TECHNOLOGIES	GURGAON
2393.	MARS GCC	AL MAJAZ
2394.	MARS INTERNATIONAL INDIA PVT. LTD.	SECUNDERABAD
2395.	MARUTI PLASTIC	SURAT
2396.	MARUTI SUZUKI INDIA LTD.	HUDA
2397.	MARVELL INDIA PVT. LTD.	HYDERABAD
2398.	MARVELL INDIA PVT. LTD.	PUNE
2399.	MARVELL SEMICONDUCTORS	PUNE
2400.	MATEX NET PVT. LTD.	DELHI
2401.	MAVUNO TECHNOLOGIES PVT. LTD.	DELHI
2402.	MAXIM INTEGRATED INDIA PVT. LTD.	BENGALURU
2403.	MAXIM INTEGRATED PRODUCTS INC	BENGALURU
2404.	MAXIM SMT TECHNOLOGIES PVT. LTD.	NOIDA
2405.	MAXLINEAR TECHNOLOGIES PVT. LTD.	BENGALURU
2406.	MBTECH GROUP GMBH & CO. KGAA	BENGALURU
2407.	MCAFEE INDIA PVT. LTD.	BENGALURU
2408.	MCAFEE SOFTWARE (INDIA) PVT. LTD.	BENGALURU
2409.	MCAFEE SOFTWARE (INDIA) PVT. LTD.	JAIPUR
2410.	MCC PTA INDIA CORP. PVT. LTD.	HALDIA
2411.	MCDERMOTT MIDDLE EAST INC	DUBAI
2412.	MCF, ISRO	HASSAN
2413.	MCKINSEY KNOWLEDGE CENTRE	GURGAON
2414.	MCNALLY BHARAT ENGINEERING COMPANY LTD.	BAIDYABATI
2415.	MECH AUTOMOBILES	THANJAVUR
2416.	MECH HONDA	THANJAVUR
2417.	MECHATRONICS SYSTEMS PVT. LTD.	PUNE
2418.	MECON LTD.	BENGALURU
2419.	MEDIA LAB ASIA	DELHI
2420.	MEDIATEK INDIA TECHNOLOGY PVT. LTD.	NOIDA
2421.	MEDTRONIC (COVIDIEN)	HYDERABAD
2422.	MEETHAQ EMPLOYMENT AGENCY	JAIPUR
2423.	MEGATECH CONTROL LLC	KUNDAPURA
2424.	MEHRO CONSULTANTS	NEW DELHI
2425.	MELSTAR INFORMATION TECHNOLOGY LTD.	NEW DELHI
2426.	MEMF-ETA SWITCHGEAR MFG. CO.	SANGLI
2427.	MENTOR GRAPHICS	BENGALURU
2428.	MERCEDES BENZ R&D INDIA PVT. LTD.	BENGALURU
2429.	MERCEDES BENZ R&D INDIA PVT. LTD.	PUNE
2430.	MERCER CONSULTING INDIA PVT. LTD.	NEW DELHI
2431.	MERIDIANSOFT INFO SYSTEMS PVT. LTD.	HYDERABAD
2432.	MERITOR CVS INDIA PVT. LTD.	BENGALURU
2433.	MERU NETWORKS INDIA PVT. LTD.	BENGALURU
2434.	METACUBE SOFTWARE PVT. LTD.	JAIPUR
2435.	METALSA INDIA PVT. LTD.	SARAIKELA
2436.	METAS OF SDA, GIFALFARD MEMORIAL HOSPITAL	CHENNAI
2437.	METEXIM SOURCING PVT.LTD.	KANYAKUMARI
2438.	METHODEXSYSTEMS LTD.	DEWAS
2439.	METITO OVERSEAS LTD.	DUBAI
2440.	METITO OVERSEAS LTD.	TRICHY
2441.	METITO WATER TREATMENT	SHARJAH
2442.	METRICSTREAM INFOTECH INDIA PVT. LTD.	BENGALURU
2443.	MHB FILTER INDIA PVT. LTD.	AKKALKOT

S.NO.	NAME	LOCATION
2444.	MICHELIN INDIA TAMILNADU TYRES PVT. LTD.	CHENNAI
2445.	MICRO LABS LTD.	BENGALURU
2446.	MICROCHIP TECHNOLOGY	CHENNAI
2447.	MICROLAND	BENGALURU
2448.	MICRON SEMICONDUCTOR ASIA PTE LTD.	SINGAPORE
2449.	MICROSOFT CORPORATION	BENGALURU
2450.	MICROSOFT CORPORATION	HYDERABAD
2451.	MICROSOFT GLOBAL SERVICES CENTER	BENGALURU
2452.	MICROSOFT GLOBAL SERVICES CENTER	HYDERABAD
2453.	MICROSOFT INDIA (R&D) PVT. LTD.	BENGALURU
2454.	MICROSOFT INDIA (R&D) PVT. LTD.	HYDERABAD
2455.	MICROSOFT INDIA (R&D) PVT. LTD.	JAIPUR
2456.	MICROSOFT INDIA DEVELOPMENT CENTER	MYSORE
2457.	MICROSOFT INDIA GTSC	BENGALURU
2458.	MICROSOFT INDIA PVT. LTD.	HYDERABAD
2459.	MICROSOFT SERVICES GLOBAL DELIVERY	HYDERABAD
2460.	MIDAS POLYMER COMPOUNDS PVT. LTD.	KOTTAYAM
2461.	MIDAS SAFETY PRODUCTS PVT. LTD.	ALAPPUZHA
2462.	MIDDLEEAST PRESTRESSING LLC	TIRUNELVELI
2463.	MILESTONE CORPORATE SERVICES PVT. LTD.	HYDERABAD
2464.	MILLENNIUM TECHNOSOFT LTD.	HYDERABAD
2465.	MINACS PVT. LTD.	BENGALURU
2466.	MIND CURV	ERNAKULAM
2467.	MINDA FURUKAWA ELECTRIC PVT. LTD.	NARNAUL
2468.	MINDA FURUKAWA ELECTRIC PVT. LTD.	REWARI
2469.	MINDA KYORAKU LTD.	REWARI
2470.	MINDA STONERIDGE INSTRUMENTS LTD.	PUNE
2471.	MINDARIKA PVT. LTD.	CHENNAI
2472.	MINDQ SYSTEMS PVT. LTD.	HYDERABAD
2473.	MINDTECK INDIA LTD.	BENGALURU
2474.	MINDTREE LTD.	BENGALURU
2475.	MINDTREE LTD.	COCHIN
2476.	MINDTREE LTD.	VRIDHACHALAM
2477.	MINERALS TECHNOLOGIES	BENGALURU
2478.	MISHRA DHATU NIGAM LTD.	HYDERABAD
2479.	MISTRAL SOLUTIONS PVT. LTD.	BENGALURU
2480.	MISYS FINANCIAL SOFTWARE	BENGALURU
2481.	MISYS SOFTWARE SOLUTIONS	BENGALURU
2482.	MITSUBISHI ELECTRIC INDIA PVT.LTD.	PUNE
2483.	mitsui ELASTOMERS SINGAPORE PVT. LTD.	PARAMAKUDI
2484.	MITTAL PUBLICATIONS	NEW DELHI
2485.	ML OUTSOURCING SERVICES PVT. LTD.	CHENNAI
2486.	MOBIGRAPH	TIRUNELVELI
2487.	MOBILE INTERFACE DESIGNS	PUNE
2488.	MOBILEUM INDIA PVT. LTD.	GURGAON
2489.	MOCA HEALTHCARE CERTIFICATIONS PVT. LTD.	NEW DELHI
2490.	MO-DATA INC	FREMONT
2491.	MODEC OFFSHORE PRODUCTION SYSTEMS	SINGAPORE
2492.	MOHAMED ABDUL RAHMAN AL BAHAR	SHARJAH
2493.	MOHINI CONSTRUCTION EQUIPMENTS	JAIPUR
2494.	MOLBIO DIAGNOSTICS PVT. LTD.	PERNEM
2495.	MOLD MASTERS TECHNOLOGIES PVT. LTD.	COIMBATORE
2496.	MOLEX INDIA PVT. LTD.	BENGALURU
2497.	MONDELEZ INDIA FOODS PVT. LTD.	SAHARANPUR
2498.	MOOG INDIA TECHNOLOGY CENTER PVT. LTD.	BENGALURU
2499.	MORGAN CERAMICS MIDDLE EAST	RA AL KHAIMAH
2500.	MORGAN STANLEY	AMBALA CITY

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2501.	MORGAN STANLEY ADVANTAGE SERVICES	BENGALURU
2502.	MOSER BAER INDIA LTD.	GREATER NOIDA
2503.	MOTHERSON AUTOMOTIVE TECHNOLOGIES & ENGG	CHENNAI
2504.	MOTHERSON SUMI INFOTECH & DESIGNS LTD.	KURNOOL
2505.	MOTHERSON SUMI SYSTEMS LTD.	NEW DELHI
2506.	MOTIVITY LABS	HYDERABAD
2507.	MOTT MACDONALD	ABU DHABI
2508.	MOTT MACDONALD & CO. LLC	MUSCAT
2509.	MOZZAT ENTERPRISE SDN BHD	SERIA
2510.	MPHISIS AN HP COMPANY	BENGALURU
2511.	MPHISIS LTD.	SALEM
2512.	MRF LTD.	CHENNAI
2513.	MRF TYRES	ERODE
2514.	MRV INFOTECH INDIA PVT. LTD.	VELACHERRY
2515.	MSCRIPTS SYSTEMS INDIA PVT. LTD.	CHINTAMANI
2516.	MSD INTERNATIONAL GMBH	SINGAPORE
2517.	MSYS TECHNOLOGIES	BENGALURU
2518.	MUBEA AUTOMOTIVE INDIA	PUNE
2519.	MUBLE SOLUTIONS PVT. LTD.	COCHIN
2520.	MURUGAPPA MORGAN THERMAL CERAMICS LTD.	AHMEDABAD
2521.	MUSASHI AUTO PARTS INDIA PVT. LTD.	BENGALURU
2522.	MUTHOOT MEDICAL CENTRE	KOLLAM
2523.	MVIT,VSSC,DOS,ISRO	THIRUVANANTHAPURAM
2524.	MYCITYWAY INDIA RESEARCH LABS PVT. LTD.	MORADABAD
2525.	MYLAN LABORATORIES LTD.	HYDERABAD
2526.	MYNTRA DESIGNS PVT. LTD.	BENGALURU
2527.	MYSORE MEDICAL COLLEGE AND RESEARCH INST	MYSORE
2528.	MYUNG SUNG INDIA PRECISION PVT. LIMIT	CHENNAI
2529.	NABL	GURGAON
2530.	NABORS DRILLING INTERNATIONAL LTD.	SAUDI ARABIA
2531.	NAFFCO	DUBAI
2532.	NAFFCO ELECTROMECHANICAL CO LLC	DUBAI
2533.	NAFFCO ELECTROMECHANICAL LLC	DUBAI
2534.	NAFFCO FZCO	DUBAI
2535.	NAGALAND UNIVERSITY	DIMAPUR
2536.	NAGARRO SOFTWARES	NEW DELHI
2537.	NAGARRO SOFTWARES INDIA PVT. LTD	GURGAON
2538.	NAGRAVISION INDIA PVT LTD	BANGALORE
2539.	NAGRAVISION INDIA PVT. LTD	BANGALORE
2540.	NALASHAA SOLUTIONS (INDIA) PVT. LTD.	BANGALORE
2541.	NALCO	ODISHA
2542.	NANO SCIENTIFIC RESEARCH CENTRE PVT.LIMI	HYDERABAD
2543.	NAPINO AUTO & ELECTRONICS LTD.	GURGAON
2544.	NAPINO AUTO & ELECTRONICS LTD.	GURGAON
2545.	NAR SPICE PRODUCTS	KERALA
2546.	NARAYANA HEALTH	JAMMU
2547.	NASMYTHINDIA	BANGALORE
2548.	NATCO PHARMA LTD	HYDERABAD
2549.	NATIOAL ENGINEERING INDUSTRIES	JAIPUR
2550.	NATIONAL ALUMINIUM COMPANY LTD.	ODISHA
2551.	NATIONAL ALUMINIUM COMPANY LTD.	ODISHA
2552.	NATIONAL AUTO PLAST	CHENNAI
2553.	NATIONAL CENTRE FOR BIOLOGICAL SCIENCES	BANGALORE
2554.	NATIONAL CONTRACTING CO. LTD.	ABU DHABI
2555.	NATIONAL DEFENCE ACADEMY	PUNE
2556.	NATIONAL ENGINEERING INDUSTRIES	BHIWADI
2557.	NATIONAL ENGINEERING INDUSTRIES LTD.	JAIPUR

S.NO.	NAME	LOCATION
2558.	NATIONAL ENGINEERING INDUSTRIES LTD.	VADODARA
2559.	NATIONAL ENGINEERING INDUSTRIES LTD.	DELHI
2560.	NATIONAL ENGINEERING INDUSTRIES LTD.	JAIPUR
2561.	NATIONAL ENGINEERING INDUSTRIES PVT LTD.	JAIPUR
2562.	NATIONAL HIGHWAYS AUTHORITY OF INDIA	GUWAHATI
2563.	NATIONAL INFORMATICS CENTER	AGARTALA
2564.	NATIONAL INFORMATICS CENTER	CHENNAI
2565.	NATIONAL INFORMATICS CENTER	DHAMTARI
2566.	NATIONAL INFORMATICS CENTER	GOA
2567.	NATIONAL INFORMATICS CENTER	JAIPUR
2568.	NATIONAL INFORMATICS CENTER	NEW DELHI
2569.	NATIONAL INFORMATICS CENTER	PANCHKULA
2570.	NATIONAL INSTITUTE OF FASHION TECHNOLOGY	BANGALORE
2571.	NATIONAL INSTITUTE OF NUTRITION	HYDERABAD
2572.	NATIONAL INSTITUTE OF OCEAN TECHNOLOGY	CHENNAI
2573.	NATIONAL INSTRUMENTS	BANGALORE
2574.	NATIONAL OILWELL VARCO FIBER GLASS SYSTE	MALAYSIA
2575.	NATIONAL REMOTE SENSING CENTER, ISRO , DOS, GOI	HYDERABAD
2576.	NATIONAL REMOTE SENSING CENTRE	HYDERABAD
2577.	NATSTEEL HOLDINGS PTE LTD	SINGAPORE
2578.	NAVA BHARAT VENTURES LTD.	TELANGANA
2579.	NAVIGATE CONSULTING BUSINESS SOLUTIONS INDIA PVT.	PUNE
2580.	NCC LTD.	GWALIOR
2581.	NCC LTD.	HYDERABAD
2582.	NCR CORPORATION	DUBAI
2583.	NCR CORPORATION	GURGAON
2584.	NCR CORPORATION	HYDERABAD
2585.	NEC TECHNOLOGIES INDIA PVT. LTD.	BANGALORE
2586.	NEI	JAIPUR
2587.	NEI LTD	JAIPUR
2588.	NELCO LTD.	MUMBAI
2589.	NEOAIRTECH INDIA PVT LTD.	BANGALORE
2590.	NEOSOFT TECHNOLOGIES	PUNE
2591.	NEPA INDIA	MUMBAI
2592.	NESANS MINING AND AUTOMATION PRIVATE LIM	COIMBATORE
2593.	NEST 3 PARTY LOGISTICS PVT LTD	GURGAON
2594.	NEST INFORMATION TECHNOLOGIES	COCHIN
2595.	NESTLE INDIA LTD.	GOA
2596.	NESTLE INDIA LTD.	MOGA
2597.	NETAPP	BANGALORE
2598.	NETCRACKER TECHNOLOGY INDIA PVT LTD	BANGALORE
2599.	NETENRICH	HYDERABAD
2600.	NETENRICH TECHNOLOGIES PVT LTD	HYDERABAD
2601.	NETHRAM LLC	SULTHAN BATHERY
2602.	NETSUTRA	GHAZIABAD
2603.	NETWORK COMPONENTS PRIVATE LTD. PUNE	PUNE
2604.	NEULAND LABORATORIES LTD	HYDERABAD
2605.	NEULAND LABS PVT LTD	HYDERABAD
2606.	NEUSTAR INC	BANGALORE
2607.	NEW AGE	DUBAI
2608.	NEXII IT LABS PVT LTD	BANGALORE
2609.	NEXTEDUCATION INDIA PVT LTD	HYDERABAD
2610.	NEXTGEN HEALTHCARE	BANGALORE
2611.	NHK AUTOMOTIVE COMPONENTS INDIA PVT LTD	AHMEDNAGAR
2612.	NI SYSTEMS (INDIA) PVT. LTD.	BANGALORE
2613.	NICCO ENGINEERING SREVICES LTD	MUMBAI
2614.	NICE INTERACTIVE SOLUTIONS INDIA PVT LIM	PUNE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2615.	NICE INTERACTIVE SOLUTIONS PVT LTD.	MUMBAI
2616.	NICE SYSTEMS	PUNE
2617.	NICHINO INDIA PVT LTD	HYDERABAD
2618.	NICSI	NOIDA
2619.	NIDUS ENTERPRISES PRIVATE LTD.	AHMEDABAD
2620.	NIELIT	DELHI
2621.	NIELIT DELHI CENTRE	NEW DELHI
2622.	NIHILENT ANALYTICS LTD.	KOLKATA
2623.	NIHILENT TECHNOLOGIES LIMETED,PUNE	PUNE
2624.	NIHON COMMUNICATION SOLUTIONS PVT. LTD.	BANGALORE
2625.	NIIT TECHNOLOGIES LTD	GURGAON
2626.	NIIT TECHNOLOGIES LTD	NOIDA
2627.	NIKUNJ STOCK BROKERS LTD	DELHI
2628.	NILATECH	CHENNAI
2629.	NIMHANS (AN INI), GOVT. OF INDIA	BANGALORE
2630.	NIMR AUTOMOTIVE LLC	ABU DHABI
2631.	NINE DOTS TECHNOLOGIES PRIVATE LTD.	MUMBAI
2632.	NIPMAN FASTENER INDUSTRIES PVT LTD	CHENNAI
2633.	NIRMAL FIBER PVT LTD	GAJUROLA
2634.	NIST ITI	MANTHRI PALEM
2635.	NITS SOLUTIONS	GURGAON
2636.	NITYAM WEBTECH	RAJKOT
2637.	NIVEA INDIA PVT LTD	AHMEDABAD
2638.	NIVIDOUS SOFTWARE SOLUTION PVT LTD	MUMBAI
2639.	NIZWA COLLEGE OF TECHNOLOGY .	OMAN
2640.	NLC INDIA LTD.	NEVELI
2641.	NMC TRADING LLC	DUBAI
2642.	NMDC LTD	CHHATTISGARH
2643.	NOKIA	BANGALORE
2644.	NOKIA	CHENNAI
2645.	NOKIA	HYDERABAD
2646.	NOKIA	MUMBAI
2647.	NOKIA NETWORKS	BANGALORE
2648.	NOKIA SOLUTIONS & NETWORKS	BANGALORE
2649.	NOKIA SOLUTIONS & NETWORKS	CHENNAI
2650.	NOKIA SOLUTIONS & NETWORKS	MUMBAI
2651.	NORDSON INDIA PVT LTD - BANGALORE	CHENNAI
2652.	NORTH TELECOM LLC	MUMBAI
2653.	NORTHLAB PTE LTD	SINGAPORE
2654.	NOV	DUBAI
2655.	NOV FGS PTE LTD	SINGAPORE
2656.	NOV FGS SINGAPORE PTE LTD	SINGAPORE
2657.	NOV FGS,SINGAPORE	SINGAPORE
2658.	NOVARTIS	HYDERABAD
2659.	NOVARTIS HEALTHCARE PVT LTD	HYDERABAD
2660.	NOVARTIS SINGAPORE PHARMACEUTICAL MANUFACTUR	SINGAPORE
2661.	NOVI DIGITAL ENTERTAINMENT PRIVATE LIMIT	GURGAON
2662.	NPCC	ABU DHABI
2663.	NPCI	MUMBAI
2664.	NRI FINTECH INDIA PVT.LTD	KOLKATA
2665.	NSK PRINTS	CHENNAI
2666.	NTPC LTD.	ODISHA
2667.	NTPC LTD	CHENNAI
2668.	NTPC LTD	FARIDABAD
2669.	NTT DATA	BANGALORE
2670.	NTT DATA	CHENNAI
2671.	NTT DATA	NOIDA



S.NO.	NAME	LOCATION
2672.	NTT DATA INFORMATION PROCESSING SERVICES	BANGALORE
2673.	NTTF	JAMSHEDPUR
2674.	NUANCE COMMUNICATIONS	PUNE
2675.	NUANCE INDIA PVT LTD	LUCKNOW
2676.	NUANCE INDIA PVT LTD	PUNE
2677.	NUCLEAR POWER CORPORATION OF INDIA LIMIT	KAIGA,KARNATAKA
2678.	NUCLEAR POWER CORPORATION OF INDIA LIMIT	MUMBAI
2679.	NUCLEUS SOFTWARE EXPORTS	NOIDA
2680.	NUCTECH INDIA PVT. LTD.	GURGAON
2681.	NUSECOND TECHNOLOGIES PVT LTD	BANGALORE
2682.	NUTANIX	BANGALORE
2683.	NUVOCO VISTAS CORPLTD	BALODA
2684.	NVIDIA	BANGALORE
2685.	NVIDIA	PUNE
2686.	NXP INDIA PVT. LTD.	BANGALORE
2687.	NXP INDIA PVT. LTD.	NOIDA
2688.	NYK AUTO LOGISTICS (INDIA) PVT. LTD	CHENNAI
2689.	NYQUEST INNOVATION LABS PVT. LTD	KOLLAM
2690.	NYSA COMMUNICATIONS PVT LTD	NOIDA
2691.	O/E/N INDIA LTD.	KERALA
2692.	OBJECT-FRONTIER SOFTWARE PRIVATE LTD.	CHENNAI
2693.	OCWEN FINANCIALS	MUMBAI
2694.	ODC STANDARDS	HYDERABAD
2695.	OERLIKON GRAZIANO TRASMISSIONI INDIA PVT. LTD.	NOIDA
2696.	OFSS,PUNE	PUNE
2697.	OIL & NATURAL GAS CORPORATION LTD	KARAIKAL, PUDUCHERRY
2698.	OILFIELD SUPPLY CENTRE LTD.,DUBAI(UAE)	DUBAI
2699.	OLA CABS	BANGALORE
2700.	OLEO BUFFERS INDIA PVT. LTD.	BANGALORE
2701.	OMAN FIBER OPTIC SAOG	OMAN
2702.	OMAN OIL REFINERIES AND PETROLEUM INDUST	OMAN
2703.	OMNI AUTO LTD	JAMSHEDPUR
2704.	OMRON AUTOMATION PVT. LTD.	MUMBAI
2705.	OMT SOFTWARE PRIVATE LTD.	NEW DELHI
2706.	ON SEMICONDUCTOR	BANGALORE
2707.	ON SEMICONDUCTORS	BANGALORE
2708.	ON SEMICONDUCTORTECHONLOGY INDIA PVT LT	BANGALORE
2709.	ONMOBILE GLOBAL LTD.	BANGALORE
2710.	ONTIME INDUSTRIAL SERVICE LTD.	CHENNAI
2711.	ONWARD TECHNOLOGIES	PUNE
2712.	OPEN DESTINATION INFOTECH PVT. LTD.	PANAJI
2713.	OPENTEXT	BANGALORE
2714.	OPENTEXT CORP.	HYDERABAD
2715.	OPENTEXT TECHNOLOGIES INDIA PVT LTD	HYDERABAD
2716.	OPERATIONAL ENERGY GROUP INDIA PVT.LTD	CHENNAI
2717.	OPTEL VISION INDIA PVT LTD	GOA
2718.	OPTIEMUS ELECTRONICS LTD.	NOIDA
2719.	OPTIMIZORY TECHNOLOGIES PRIVATE LTD.	NOIDA
2720.	OPTIMUM SOLUTIONS	SINGAPORE
2721.	OPTIV	BANGALORE
2722.	OPTUM	CHENNAI
2723.	OPTUM	GURGAON
2724.	OPTUM	HYDERABAD
2725.	OPTUM	NOIDA
2726.	ORACEL INDIA PVT LTD	AHMEDABAD
2727.	ORACEL INDIA PVT LTD	BANGALORE

S.NO.	NAME	LOCATION
2728.	ORACEL INDIA PVT LTD	GURGAON
2729.	ORACEL INDIA PVT LTD	HYDERABAD
2730.	ORACEL INDIA PVT LTD	NOIDA
2731.	ORACEL INDIA PVT LTD	THIRUVANANTHAPURAM
2732.	ORACEL INDIA PVT LTD	TRIVANDRUM ,KERALA
2733.	ORACLE FINANCIAL SERVICES SOFTWARE LTD	BANGALORE
2734.	ORACLE FINANCIAL SERVICES SOFTWARE LTD	CHENNAI
2735.	ORACLE FINANCIAL SERVICES SOFTWARE LTD	MUMBAI
2736.	ORANGE BUSINESS SERVICES INDIA SOLUTIONS	MUMBAI
2737.	ORANGE CITY WATER PRIVATE LTD.	NAGPUR
2738.	ORBIT TECHNOLOGIES	MOHALI
2739.	ORCHID PHARMA LTD.	CHENNAI
2740.	ORGANIZEIN GLOBAL INTERNET MARKETING SOLUTION	BANGALORE
2741.	ORIENTAL BANK OF COMMERCE	MUMBAI
2742.	ORIENTAL STRUCTURAL ENGINEERS PRIVATE LI	DELHI
2743.	OTIS ELEVATOR (INDIA) LTD.	BANGALORE
2744.	OTIS ELEVATOR (INDIA) LTD.	CHENNAI
2745.	OVERSEAS AST CO. LLC	DUBAI
2746.	OWLER INDIA PVT LTD	COIMBATORE
2747.	P.E.S INSTITUTE OF MEDICAL SCIENCES	BANGALORE
2748.	PACIFIC COLLEGE OF ENGINEERING	UDAIPUR
2749.	PADMINI VNA MECHATRONICS PVT LTD	GURGAON
2750.	PAE	AFGHANISTAN
2751.	PALMMASON PVT LTD	NOIDA
2752.	PANACEA MEDICAL & WELLNESS CENTER	DUBAI
2753.	PANASONIC INDIA PRIVATE LTD.	GURGAON
2754.	PANASONIC INDIA PRIVATE LTD.	JHAJJAR
2755.	PANASONIC INDIA PRIVATE LTD.	NEW DELHI
2756.	PANASONIC INDIA PRIVATE LTD.	NOIDA
2757.	PANDIT DEENDAYAL PETROLEUM UNIVERSITY GA	GANDHINAGAR
2758.	PANGULF TECHNOLOGIES PVT. LTD.	THANE (MAHARASHTRA)
2759.	PANORAMA TELEVISION PVT LTD(NETWORK18 GR	HYDERABAD
2760.	PARALLEL WIRELESS INDIA PVT LTD	PUNE
2761.	PARAMETRIC TECHNOLOGY CORPORATION	GURGAON
2762.	PARASON MACHINERY	AURANGABAD
2763.	PAREXEL INTERNATIONAL	BANGALORE
2764.	PAREXEL INTERNATIONAL	HYDERABAD
2765.	PARKER HANNIFIN INDIA PVT LTD	BANGALORE
2766.	PARLE GLOBAL TECHNOLOGIES PVT. LTD.	MUMBAI
2767.	PARSONS INTERNATIONAL	DUBAI
2768.	PARVATHY ORTHO HOSPITAL PVT LTD	CHENNAI
2769.	PASCO CORPORATION, JAPAN	TOKYO
2770.	PATRIOT SOFTWARE INDIA PVT LTD	PUNE
2771.	PATSPIN INDIA LTD.	KOCHI
2772.	PAVITRA CHITFUND PVT LTD.	ANDHRA PRADESH
2773.	PAYPAL INDIA PRIVATE LTD.	BANGALORE
2774.	PAYPAL INDIA PRIVATE LTD.	CHENNAI
2775.	PBR TECHNOLOGY SRL	ABU DHABI
2776.	PC LAND	TRIVANDRUM ,KERALA
2777.	PEARSON INDIA EDUCATION SERVICES PVT. LTD.	BANGALORE
2778.	PEGA SYSTEMS	HYDERABAD
2779.	PEMAC PTE LTD	SINGAPORE
2780.	PENAR ENGINEERED BUILDING SYSTEMS LTD.	HYDERABAD
2781.	PENAR INDUSTRIES LTD.	HYDERABAD
2782.	PENTA	DOHA
2783.	PENTABELL	MUSCAT, OMAN
2784.	PENTAIR VALVES & CONTROLS PVT LTD	PUNE

S.NO.	NAME	LOCATION
2785.	PENTAIR WATER INDIA PVT LTD	NOIDA
2786.	PEOPLESTRONG	GURGAON
2787.	PEOPLETECH	HYDERABAD
2788.	PERFECTPAC LTD.	NOIDA
2789.	PERFETTI VAN MELLE INDIA PVT LTD	GURGAON
2790.	PERFETTI VAN MELLE INDIA PVT.LTD.	GURGAON
2791.	PERSISTENT SYSTEM LTD.	BANGALORE
2792.	PERSISTENT SYSTEM LTD.	GOA
2793.	PERSISTENT SYSTEM LTD.	HYDERABAD
2794.	PERSISTENT SYSTEM LTD.	PUNE
2795.	PERSISTENT SYSTEM LTD.	VERNA
2796.	PETROFAC	PUNE
2797.	PETROFAC EMIRATES	ABU DHABI
2798.	PETROFAC INT. LTD	KUWAIT
2799.	PETROFAC INTERNATIONAL LLC	SHARJAH
2800.	PETROFAC INTERNATIONAL LTD. (KUWAIT)	KUWAIT
2801.	PETROLEUM DEVELOPMENT OMAN	MUSCAT, OMAN
2802.	PETRON EMIRATES	DUBAI
2803.	PETRON EMIRATES	OMAN
2804.	PETRONAS LUBRICANT INTERNATIONAL PVT. LTD.	MUMBAI
2805.	PETRONASH DUBAI	DUBAI
2806.	PFBR, BHAVINI	KANCHEEPURAM
2807.	PFIZER	CHENNAI
2808.	PFIZER LTD.	GOA
2809.	PHARMAZELL VIZAG PVT LTD	VISAKHAPATNAM
2810.	PHENIX CONSTRUCTION TECHNOLOGIES	HARIDWAR
2811.	PHILIPS INDIA LTD.	BANGALORE
2812.	PHILIPS INDIA LTD.	CHENNAI
2813.	PHILIPS INDIA LTD.	GURGAON
2814.	PHILIPS INDIA LTD.	NOIDA
2815.	PHILIPS INNOVATION CAMPUS	BANGALORE
2816.	PHILTEG	HOSUR, TAMILNADU
2817.	PHOENIX CONTACT MIDDLE EAST FZ LLC	DUBAI
2818.	PHOENIX MEDICAL SYSTEMS PVT. LTD	CHENNAI
2819.	PIAGGIO VEHICLES PVT LTD.	COCHIN
2820.	PIAGGIO VEHICLES PVT LTD.	DELHI
2821.	PIAGGIO VEHICLES PVT LTD.	PUNE
2822.	PICNFRAMES TECHNOLOGIES	CHANDIGARH
2823.	PILKINGTON AUTOMOTIVE INDIA LTD	VISAKHAPATNAM
2824.	PILLIWAR & ASSOCIATES, RAIPUR	CHHATTISGARH
2825.	PINNACLE HOSPITALS	VISAKHAPATNAM
2826.	PIRAMAL GLASS PVT LTD	GUJARAT
2827.	PIRAMAL SWASTHYA MANAGEMENT AND RESEARCH INSTITUTE	HYDERABAD
2828.	PITNEY BOWES	NEW DELHI
2829.	PITNEY BOWES	NOIDA
2830.	PLAN INDIA	BHUBANESWAR
2831.	PLANARIND ONLINE SERVICES INDIA PRIVATE LTD.	BANGALORE
2832.	PNASAONIC INDIA PVT LTD	GURGAON
2833.	PNBMETLIFE LTD.	MUMBAI
2834.	POCKET APP	MUMBAI
2835.	POLAKULATH NARAYANAN RENAI MEDICITY	COCHIN
2836.	POLE TO WIN	BANGALORE
2837.	POLESTAR INDUSTRIES	PUNE
2838.	POLICY BAZAAR	DELHI
2839.	POLICY BAZAAR	GURGAON
2840.	POLYCOM INC	HYDERABAD
2841.	POLYCOM TECHNOLOGY (R&D) CENTER PVT LTD	HYDERABAD

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2842.	POLYCOM UNIFIED COMMUNICATIONS	HYDERABAD
2843.	POLYPLASTICS INDUSTRIES (I) PVT. LTD.	PUNE
2844.	POLYPLASTICS INDUSTRIES (I) PVT. LTD.	YAMUNA NAGAR
2845.	POONA HOSPITAL AND RESEARCH CENTER	PUNE
2846.	PORTESCAP INDIA PVT LTD	MUMBAI
2847.	POSCO	MANGAON
2848.	POSCO	PUNE
2849.	POSITRONIC INTERCONNECTS PVT. LTD.	PUNE
2850.	POTAIN INDIA PVT LTD,MANITOWOC CRANE GROUP	PUNE
2851.	POWERGRID CORPORATION OF INDIA LTD.	GURGAON
2852.	POZIBILITY TECHNOLOGIES PVT. LTD.	BANGALORE
2853.	PPAP AUTOMOTIVE LTD	NOIDA
2854.	PRADEEP METALS LTD	MUMBAI
2855.	PRAJ INDUSTRIES LTD.	PUNE
2856.	PRAMATI TECHNOLOGIES	HYDERABAD
2857.	PRAMATI TECHNOLOGIES PVT. LTD.	HYDERABAD
2858.	PRANAVA EET	HYDERABAD
2859.	PRARAS BIOSCIENCES PVT LTD.	BANGALORE
2860.	PRAVIN ELECTRICAL PVT LTD	MUMBAI
2861.	PRAXAIR INDIA PVT LTD	DURGAPUR
2862.	PREETHI HOSPITALS (P)LTD	MADURAI
2863.	PREM INDUSTRIES	MYSORE
2864.	PREMIER EXPLOSIVES LTD.	HYDERABAD
2865.	PRESTO INFOSOLUTIONS PVT LTD	BANGALORE
2866.	PRICEWATERHOUSECOOPERS	BANGALORE
2867.	PRICOL	GURGAON
2868.	PRICOL LTD.	COIMBATORE
2869.	PRIJO SKYCAM TECHNOLOGIES PVT.,LTD.	CHENNAI
2870.	PRIME 4 INSPECTION LLC	DUBAI
2871.	PRIME M2I CONSULTING PVT LTD	FARIDABAD
2872.	PRIMERA MEDICAL TECHNOLOGIES	HYDERABAD
2873.	PRIMETALS TECHNOLOGIES INDIA PVT LTD	KOLKATA
2874.	PRINCIPAL GLOBAL SERVICES PVT LTD	PUNE
2875.	PRIVATE DENTAL CLINIC	GURGAON
2876.	PRIVATE PRACTITIONER	RANCHI
2877.	PRIYA SOFTWEB SOLUTIONS,AHMEDABAD	PUNE
2878.	PRO DYNAMICS TECHNOLOGIES LLC	DUBAI
2879.	PROCENTRIS LTD	MUMBAI
2880.	PROCESSOR SYSTEMS INDIA PVT LTC	BANGALORE
2881.	PROCUBED TECHNOLOGY SOLUTIONS PVT LTD	BANGALORE
2882.	PRODAPT SOLUTIONS	CHENNAI
2883.	PROFISOLUTIONS PVT LTD	CHENNAI
2884.	PROKARMA SOFTECH	HYDERABAD
2885.	PROMETIC TESTING PVT. LTD.	GURGAON
2886.	PRONTO SOFTWARE SOLUTIONS	BANGALORE
2887.	PROPERTYGURU	SINGAPORE
2888.	PROTECH SYSTEMS PRIVATE LTD.	NEW DELHI
2889.	PROTEGO MIDDLE EAST	DUBAI
2890.	PROTOCOL SYSTEMS SDN BHD	PETALING JAYA
2891.	PROWARENESS	BANGALORE
2892.	PRUTECH SOLUTIONS INDIA PVT LTD	HYDERABAD
2893.	P-SERVE PTE LTD	SINGAPORE
2894.	PSG HOSPITALS	COIMBATORE
2895.	PSPR 3D PROSTHETICS PVT. LTD.	HYDERABAD
2896.	PT.JNMMC,RAIPUR	RAIPUR
2897.	PTC	GURGAON
2898.	PTC	HYDERABAD

S.NO.	NAME	LOCATION
2899.	PTC	PUNE
2900.	PUBMATIC	PUNE
2901.	PUBMATIC INDIA LTD.	PUNE
2902.	PUNJ LLOYD LTD.	BHIND
2903.	PURESFTWARE	NOIDA
2904.	PURETRAININGS SOFTWARE PVT. LTD.	NOIDA
2905.	PURPLETALK INDIA PVT LTD	HYDERABAD
2906.	PURSHOTHAM ENGG INDUSTRIES	BANGALORE
2907.	PUZZOLANA MACHINERY FABRICATORS (HYDERAB	HYDERABAD
2908.	PWC SDC	BANGALORE
2909.	PYRAMID ENGINEERING	MUMBAI
2910.	PYRO NETWORKS PVT. LTD.,,	HYDERABAD
2911.	PYRODYNAMICS	BANGALORE
2912.	Q M COMPUTECH PVT. LTD.	NAGPUR
2913.	QA INFOTECH	NOIDA
2914.	QATAR AIRWAYS	QATAR
2915.	QATAR ALUMINIUM	DOHA
2916.	QATAR ALUMINIUM CO LTD	DOHA
2917.	QATAR ALUMINIUM CO LTD	QATAR
2918.	QATAR AMIRI FLIGHT	DOHA
2919.	QATAR CHEMICAL COMPANY	DOHA
2920.	QATAR CHEMICAL COMPANY	QATAR
2921.	QATAR CHEMICAL COMPANY	STATE OF QATAR
2922.	QATAR COOL DISTRICT COOLING	DOHA
2923.	QATAR ENGINEERING & CONSTRUCTION CO WLL	DOHA
2924.	QATAR ENGINEERING AND CONSTRUCTION COMPANY W.L.L	QATAR
2925.	QATAR FERTILIZER COMPANY	QATAR
2926.	QATAR FOUNDATION	QATAR
2927.	QATAR GAS	QATAR
2928.	QATAR GENERAL ELECTRICITY & WATER CORPOR	QATAR
2929.	QATAR POWER COMPANY	DOHA
2930.	QATAR SHELL GTL- QATAR	DOHA
2931.	QATARGAS OPERATING COMPANY LTD.	QATAR
2932.	QBURST TECHNOLOGIES PVT. LTD	SINGAPORE
2933.	QD-SBG CONSTRUCTION	QATAR
2934.	QED GROUP LLC	NEW DELHI
2935.	QI SPINE CLINIC	DELHI
2936.	QIPL	HYDERABAD
2937.	QISPINE CLINIC KARKARDOOMA	DELHI
2938.	QRUIZE TECHNOLOGIES PVT. LTD	CHENNAI
2939.	Q-TEC SWITCHGEAR W.L.L.	QATAR
2940.	QUADRANT 4 SOFTWARE SOLUTIONS PRIVATE LI	CHENNAI
2941.	QUADRANT EPP SURLON INDIA LTD.	GHAZIABAD
2942.	QUADRATYX	HYDERABAD
2943.	QUAKER CHEMICAL INDIA PVT LTD	PUNE
2944.	QUALCOMM	BANGALORE
2945.	QUALCOMM	HYDERABAD
2946.	QUALCOMM	NOIDA
2947.	QUALCOMM	SINGAPORE
2948.	QUANT GULF EQUIPMENT & MAINTENANCE LLC	DUBAI
2949.	QUANTAFIC BUSINESS SOLUTION	KOLKATA
2950.	QUATRRO INC	GURGAON
2951.	QUATRRO PROCESSING SERVICES PVT LTD	CHENNAI
2952.	QUEST GLOBAL	BANGALORE
2953.	QUEST GLOBAL	BELAGAVI
2954.	QUEST GLOBAL	BELGAUM
2955.	QUEST GLOBAL	SINGAPORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
2956.	QUEST GLOBAL	TRIVANDRUM ,KERALA
2957.	QUEST GLOBAL	YOKOHAMA
2958.	QUICK RAYS PVT. LTD.	DELHI
2959.	QUIKR INDIA PVT LTD	BANGALORE
2960.	QUINTILES IMS	BANGALORE
2961.	QUINTILESIMS RESEARCH	BANGALORE
2962.	QUINTILESIMS RESEARCH INDIA PVT LTD	BANGALORE
2963.	QUIPPO VALUERS AND AUCTIONEERS PVT LTD	KOLKATA
2964.	QUITYPE TECHNOLOGIES	BANGALORE
2965.	QWIKCILVER SOLUTIONS LTD	BANGALORE
2966.	R L INSTITUTE OF NAUTICAL SCIENCES	MADURAI
2967.	R SYSTEMS INTERNATIONAL LTD.	FARIDABAD
2968.	R SYSTEMS INTERNATIONAL LTD.	GHAZIABAD
2969.	R. L. INSTITUTE OF NAUTICAL SCIENCES	MADURAI
2970.	R2A AUTOMATION PVT. LTD.	AURANGABAD
2971.	RABINDRANATH TAGORE INTERNATIONAL INSTITUTE	KOLKATA
2972.	RAD365 SOLUTIONS PVT. LTD.	BALASORE
2973.	RADHARANI RAIL ENGINEERING SYSTEM PVT. LTD.	JHANSI
2974.	RADIAL OMNICHANNEL TECHNOLOGIES	OOTY
2975.	RADISYS	ALAPPUZHA
2976.	RADISYS (I) PVT. LTD.	BANGALORE
2977.	RADIX LEARNING PVT. LTD.	BANGALORE
2978.	RADIX MICROSYSTEMS	HYDERABAD
2979.	RAGE FRAMEWORKS PVT. LTD.	PUNE
2980.	RAHUL ELECTRONICS	AHMEDABAD
2981.	RAILTEL CORPORATION OF (I) LTD.	CUTTACK
2982.	RAJASHREE CEMENT WORKS	GULBARGA
2983.	RAJCOMP INFO SERVICES LTD.	BIKANER
2984.	RAK MEDICAL HEALTH SCIENCES UNIVERSITY	SHIVAMOGGA
2985.	RAKUTEN (I) DEVELOPMENT AND OPERATION	BANGALORE
2986.	RAMBOLL (I) PVT. LTD.	CHENNAI
2987.	RAMBOLL MIDDLE EAST	DUBAI
2988.	RAMCO SYSTEMS LTD.	CHENNAI
2989.	RAMKRISHNA FORGINGS LTD.	JAMSHEDPUR
2990.	RANAL ENGINEERING SERVICES PVT. LTD.	BANGALORE
2991.	RANAL GLOBAL SERVICES PVT. LTD.	CHENNAI
2992.	RANDACK FASTENERS (I) PVT. LTD.	PUNE
2993.	RANE BRAKE LINING LTD.	CHENNAI
2994.	RANE ENGINE VALVE LTD.	CHENNAI
2995.	RANE ENGINE VALVE LTD.	PALVONCHA
2996.	RANE NSK STEERING SYSTEMS PVT. LTD.	BHIWANI
2997.	RANE NSK STEERING SYSTEMS PVT. LTD.	CHENNAI
2998.	RANE NSK STEERING SYSTEMS PVT. LTD.	PUNE
2999.	RANE NSK STEERING SYSTEMS PVT. LTD.	ROORKEE
3000.	RANE(MADRAS)LTD.	TRICHY
3001.	RARE MILE TECHNOLOGIES	BANGALORE
3002.	RARE SOLUTIONS PVT. LTD.	HYDERABAD
3003.	RASGAS CO. LTD.	CHENNAI
3004.	RASGAS CO. LTD.	RASLAFAN
3005.	RASHID AL JABRI GROUP	TRIVANDRUM
3006.	RASHMI METALIKS LTD.	KOLKATA
3007.	RASHTRIYA CHEMICALS & FERTILIZERS LIMITE	MUMBAI
3008.	RAVE TECHNOLOGIES	NAVI MUMBAI
3009.	RAVIKIRAN MAMIDI	HYDERABAD
3010.	RAYCHEM RPG PRV. LTD.	PUNE
3011.	RBEI(ROBERT BOSCH INDIA)	AHMEDABAD
3012.	RBS (I) DEVELOPMENT CENTER	KARNAL

S.NO.	NAME	LOCATION
3013.	RBS SERVICES (I) PVT. LTD.	KATHUA
3014.	RCKR SOFTWARE PVT. LTD.	BANGALORE
3015.	RCV INNOVATIONS PVT.LTD.	CUTTACK
3016.	REACH EMPLOYMENT SERVICES	DUBAI
3017.	REAL IMAGE MEDIA TECHNOLOGIES PVT. LTD.	JHANSI
3018.	RECAERO (I) PVT. LTD.	BANGALORE
3019.	RED HAT	PUNE
3020.	RED HAT SOFTWARE SERVICES PVT. LTD.	AHMEDABAD
3021.	REDGRAPE BUSINESS SERVICES	CHENNAI
3022.	REDGRAPE BUSINESS SERVICES	KALLAKURICHI
3023.	REDMART (I) PVT. LTD.	BHUBANESWAR
3024.	REDPINE SIGNALS INC	HYDERABAD
3025.	REF TECHNOLOGIES	HYDERABAD
3026.	REGAL BELOIT CORPORATION	HYDERABAD
3027.	REGAL SOLUTIONS PVT. LTD.	MUMBAI
3028.	REGEN POWERTECH PVT. LTD.	CHENNAI
3029.	RELGO NETWORKS PVT. LTD.	BANGALORE
3030.	RELIANCE CEMENT CO. PVT. LTD.	NAGPUR
3031.	RELIANCE CORPORATE IT PARK LTD.	JAMNAGAR
3032.	RELIANCE CORPORATE IT PARK LTD.	KANCHRAPARA
3033.	RELIANCE CORPORATE IT PARK LTD.	NAVI MUMBAI
3034.	RELIANCE CORPORATE IT PARK LTD.	THANE
3035.	RELIANCE INDUSTRIES LTD.	AHMEDABAD
3036.	RELIANCE INDUSTRIES LTD.	JAMNAGAR
3037.	RELIANCE INDUSTRIES LTD.	SURAT
3038.	RELIANCE INDUSTRIES LTD.	VADODARA
3039.	RELIANCE INFRASTRUCTURE LTD.	MIRA ROAD
3040.	RELIANCE JIO INFOCOMM LTD.	BANGALORE
3041.	RELIANCE JIO INFOCOMM LTD.	MAHENDERGARH
3042.	RELIANCE JIO INFOCOMM LTD.	MUMBAI
3043.	RELIANCE JIO INFOCOMM LTD.	NEW DELHI
3044.	RELIANCE JIO INFOCOMM LTD.	THANE
3045.	RELIANCE RETAIL	NAVI MUMBAI
3046.	RELIANCE TECH SERVICES	HYDERABAD
3047.	RELYON SOLAR PVT. LTD.	PUNE
3048.	RENATA PRECISION COMPONENTS PVT. LTD.	PUNE
3049.	RENAULT NISSAN AUTOMOTIVE (I) PVT. LTD.	CHENNAI
3050.	RENAULT NISSAN AUTOMOTIVE (I) PVT. LTD.	HYDERABAD
3051.	RENAULT NISSAN AUTOMOTIVE (I) PVT. LTD.	KANCHIPURAM
3052.	RENAULT NISSAN TECH & BUSINESS CENTRE INDIA	CHENNAI
3053.	RENAULT NISSAN TECH & BUSINESS CENTRE INDIA	KANCHEEPURAM
3054.	RENAULT NISSAN TECH & BUSINESS CENTRE INDIA	KUMBAKONAM
3055.	RENAULT NISSAN TECH & BUSINESS CENTRE INDIA	SALEM
3056.	RENAULT NISSAN TECH & BUSINESS CENTRE INDIA	VELLORE
3057.	REPLICON SOFTWARE (I) PVT. LTD.	BANGALORE
3058.	REVITAS TECHNOLOGIES PVT. LTD.	AHMEDABAD
3059.	REYNOLD (I) PVT.LTD.	NOIDA
3060.	RHINO MACHINES PVT. LTD.	ANAND
3061.	RHYTHMSOFT ROBOTICS AND AUTOMATION PVT.	DELHI
3062.	RICOH (I) LTD.	AHMEDABAD
3063.	RICOH INNOVATIONS PVT. LTD.	BANGALORE
3064.	RIKA FORGE	CHENNAI
3065.	RING PLUS AQUA LTD.	NASHIK
3066.	RISESMART HR SERVICE PTV LTD.	PUNE
3067.	RJP INFOTEK PVT. LTD.	CHENNAI
3068.	RMC READYMIX (I) - A DIVISON OF PRIS	NEW PANVEL
3069.	ROBERT BOSCH (I) LTD.	BANGALORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3070.	ROBERT BOSCH (I) LTD.	PUNE
3071.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	ALAPPUZHA
3072.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	BANGALORE
3073.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	BELGAUM
3074.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	CHENNAI
3075.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	COIMBATORE
3076.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	DHARWAD
3077.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	ERNAKULAM
3078.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	ERODE
3079.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	GUWAHATI
3080.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	HYDERABAD
3081.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	JAIPUR
3082.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	KARUR
3083.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	MADURAI
3084.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	MALAPPURAM
3085.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	MANGALAGIRI
3086.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	MYSORE
3087.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	PANIPAT
3088.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	PATHANAMTHITTA
3089.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	PUNE
3090.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	SALEM
3091.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	SANQUELIM
3092.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	SHIMOGA
3093.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	SIRSI
3094.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	TRICHUR
3095.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	TRICHY
3096.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	TRIVANDRUM
3097.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	TUTICORIN
3098.	ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS	VISAKHAPATNAM
3099.	ROCA BATHROOM PRODUCTS PVT. LTD.	TUPOKERA
3100.	ROCKWELL AUTOMATION (I) PVT. LTD.	GHAZIABAD
3101.	ROCKWELL COLLINS (I) PVT. LTD.	HARAPANAHALLI
3102.	ROCKWELL COLLINS (I) PVT. LTD.	HYDERABAD
3103.	ROHDE & SCHWARZ EMIRATES LLC	ERODE
3104.	ROHM & HAAS (I) PVT. LTD.	CHENNAI
3105.	ROLLS ROYCE (I) PVT. LTD.	BANGALORE
3106.	ROLLS ROYCE (I) PVT. LTD.	CHENNAI
3107.	ROLTA (I) LTD.	GHAZIABAD
3108.	ROLTA (I) LTD.	HYDERABAD
3109.	ROOP AUTOMOTIVE LTD.	GURGAON
3110.	ROOP AUTOMOTIVE LTD.	SOHNA
3111.	ROOTS INDUSTRIES (I) LTD.	COIMBATORE
3112.	ROSSELL TECHSYS	BANGALORE
3113.	ROTORK CONTROL (I) PVT. LTD.	CHENNAI
3114.	ROYAL BANK OF SCOTLAND	GURGAON
3115.	ROYAL BANK OF SCOTLAND	MALOUT
3116.	ROYAL DUTCH SHELL	CHENNAI
3117.	ROYAL ENFIELD	CHENNAI
3118.	ROYAL ENFIELD	JAIPUR
3119.	ROYAL ENFIELD	RANIPET
3120.	RR DONNELLEY	CHIRAKKADAVU
3121.	RR DONNELLEY	TRIVANDRUM
3122.	RS CONSULTANCY	HOWRAH
3123.	RSAM TECHNOLOGIES (I) LTD.	MYSURU
3124.	RSG MEDIA SYSTEMS PVT. LTD.	GURGAON
3125.	RT VISION TECHNOLOGIES PVT. LTD.	GREATER NOIDA
3126.	RTP CONTROLS (I) PVT. LTD.	BANGALORE



<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3127.	RTS SYSTEMS PVT. LTD.	MOHALI
3128.	RUD (I) CHAIN PVT. LTD.	THANE
3129.	RUDRACE TECHNOLOGIES	DELHI
3130.	RUWAIS FERTILIZER INDUSTRIES LTD.	RUWAIS
3131.	S.A TECHNOLOGIES	CHENNAI
3132.	S.N. BHOBE & ASSOCIATES PVT. LTD.	PANJIM
3133.	S.O.S INTERNATIONAL EQUIPMENTS L.L.C	THIRUNELVELI
3134.	S.S.D.CLINICAL LAB & BLOOD BANK	RAIPUR
3135.	S.VE.J ASSOCIATES	NILGIRIS
3136.	SAANKHYA LABS PVT. LTD.	BANGALORE
3137.	SAANKHYA LABS PVT. LTD.	BELGAUM
3138.	SAARTHI AIRWAYS (P) LTD.	THRISSUR
3139.	SABIC RESEARCH & TECHNOLOGY PVT. LTD.	KUMTA
3140.	SABMILLER (I) LTD.	KANPUR
3141.	SABRE TRAVEL TECHNOLOGIES PVT. LTD.	BANGALORE
3142.	SADAR HOSPITAL	SIWAN
3143.	SAFAS INTERNETWORKING TECHNOLOGIES PVT. LTD.	BANGALORE
3144.	SAFENET INC	HATHRAS
3145.	SAFRAN ENGINEERING SERVICES	BANGALORE
3146.	SAFRAN ENGINEERING SERVICES	HAVERI
3147.	SAGAR KNITS (I) PVT. LTD.	TIRUPUR
3148.	SAGE PUBLICATION	GURGAON
3149.	SAHARA AND MA'ADEN PETROCHEMICAL CO.	KOLLAM
3150.	SAHARA ENGINEERING	COIMBATORE
3151.	SAHARA PETROCHEMICALS CO.	HASSAN
3152.	SAINATH ENVIROTECH	TUTICORIN
3153.	SAINT GOBAIN	SULTHAN BATHERY
3154.	SAINT-GOBAIN GYPROC EMIRATES INDUSTRIES	ABU DHABI
3155.	SAIPEM (I) PVT. LTD.	CHENNAI
3156.	SAIPEM CONTRACTING NETHERLANDS BV SHARJAH	SHARJAH
3157.	SAKAE RIKEN POLYPLASTICS (I) PVT.LTD.	REWARI
3158.	SALCOMP MANUFACTURING (I) PVT. LTD.	CHENNAI
3159.	SALESFORCE (I) PVT. LTD.	HYDERABAD
3160.	SAMALKOT POWER LTD.	EAST GODAVARI
3161.	SAME DEUTZ FAHR	VELLORE
3162.	SAME DEUTZ-FAHR	KALPAKKAM
3163.	SAMSUNG (I) ELECTRONICS PVT. LTD.	BAREILLY
3164.	SAMSUNG (I) ELECTRONICS PVT. LTD.	CHANDIGARH
3165.	SAMSUNG (I) ELECTRONICS PVT. LTD.	CHENNAI
3166.	SAMSUNG (I) ELECTRONICS PVT. LTD.	CHHINDWARA
3167.	SAMSUNG (I) ELECTRONICS PVT. LTD.	FARIDABAD
3168.	SAMSUNG (I) ELECTRONICS PVT. LTD.	GHAZIABAD
3169.	SAMSUNG (I) ELECTRONICS PVT. LTD.	GREATER NOIDA
3170.	SAMSUNG (I) ELECTRONICS PVT. LTD.	HANSI
3171.	SAMSUNG (I) ELECTRONICS PVT. LTD.	HYDERABAD
3172.	SAMSUNG (I) ELECTRONICS PVT. LTD.	JAIPUR
3173.	SAMSUNG (I) ELECTRONICS PVT. LTD.	JHANSI
3174.	SAMSUNG (I) ELECTRONICS PVT. LTD.	JODHPUR
3175.	SAMSUNG (I) ELECTRONICS PVT. LTD.	KANCHEEPURAM
3176.	SAMSUNG (I) ELECTRONICS PVT. LTD.	KUWAIT
3177.	SAMSUNG (I) ELECTRONICS PVT. LTD.	MAINPURI
3178.	SAMSUNG (I) ELECTRONICS PVT. LTD.	MEERUT
3179.	SAMSUNG (I) ELECTRONICS PVT. LTD.	NEW DELHI
3180.	SAMSUNG (I) ELECTRONICS PVT. LTD.	NOIDA
3181.	SAMSUNG (I) SOFTWARE OPERATIONS PVT. LTD.	MYSORE
3182.	SAMSUNG (I) SOFTWARE OPERATIONS PVT. LTD.	ROHTAK
3183.	SAMSUNG R&D INSTITUTE	ALIGARH

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3184.	SAMSUNG R&D INSTITUTE	BANGALORE
3185.	SAMSUNG R&D INSTITUTE	BHOPAL
3186.	SAMSUNG R&D INSTITUTE	DELHI
3187.	SAMSUNG R&D INSTITUTE	FARIDABAD
3188.	SAMSUNG R&D INSTITUTE	GHAZIABAD
3189.	SAMSUNG R&D INSTITUTE	HAMIRPUR
3190.	SAMSUNG R&D INSTITUTE	HIREKERUR
3191.	SAMSUNG R&D INSTITUTE	HYDERABAD
3192.	SAMSUNG R&D INSTITUTE	KALKA
3193.	SAMSUNG R&D INSTITUTE	MADURAI
3194.	SAMSUNG R&D INSTITUTE	NAGINA
3195.	SAMSUNG R&D INSTITUTE	NOIDA
3196.	SAMSUNG R&D INSTITUTE	RANEBENNUR
3197.	SAMSUNG R&D INSTITUTE	TIRUNELVELI
3198.	SANCHAY TECH	NEW DELHI
3199.	SANDHAR AUTOMACH (SANDHAR TECHNOLOGIES L	BANGALORE
3200.	SANDHU ENTERPRISES	RUDRAPUR
3201.	SANDISK (I) DEVICE DESIGN CENTRE PVT. LTD.	BANGALORE
3202.	SANDVIK ASIA PVT. LTD.	BANGALORE
3203.	SANDVIK ASIA PVT. LTD.	CHANDIGARH
3204.	SANDVIK ASIA PVT. LTD.	KOLHAPUR
3205.	SANDVIK ASIA PVT. LTD.	SATARA
3206.	SANDVIK ASIA PVT. LTD.	UDAIPUR
3207.	SANDVINE TECHNOLOGIES (I) PVT. LTD.	BANGALORE
3208.	SANDVINE TECHNOLOGIES (I) PVT. LTD.	TUMKUR
3209.	SANGHI INDUSTRIES LTD.	CHANDRAPUR
3210.	SANKALP HOSPITAL	SURAT
3211.	SANKALP KPIT SEMICONDUCTOR PVT. LTD.	BANGALORE
3212.	SANKALP SEMICONDUCTORS PVT. LTD.	SHIVAMOGGA
3213.	SANMINA-SCI TECHNOLOGY (I) PVT. LTD.	CHENNAI
3214.	SANOFI PASTEUR (I) PVT. LTD.	MUMBAI
3215.	SANOFI SYNTHELABO (I) PVT. LTD.	PANVEL
3216.	SANTRES ENGINEERING PVT. LTD.	CHENNAI
3217.	SAP LABS (I) PVT. LTD.	ALLAHABAD
3218.	SAP LABS (I) PVT. LTD.	BANGALORE
3219.	SAP LABS (I) PVT. LTD.	BELLARY
3220.	SAP LABS (I) PVT. LTD.	BHOPAL
3221.	SAP LABS (I) PVT. LTD.	DELHI
3222.	SAP LABS (I) PVT. LTD.	GURGAON
3223.	SAP LABS (I) PVT. LTD.	KOLKATA
3224.	SAP LABS (I) PVT. LTD.	KOZHICODE
3225.	SAP LABS (I) PVT. LTD.	NEW DELHI
3226.	SAP LABS (I) PVT. LTD.	PALANI
3227.	SAP LABS (I) PVT. LTD.	PUNE
3228.	SAP LABS (I) PVT. LTD.	SAHIBABAD
3229.	SAP LABS (I) PVT. LTD.	THRISSUR
3230.	SAP LABS (I) PVT. LTD.	TRIVANDRUM
3231.	SAPIENT CONSULTING PVT. LTD.	BANGALORE
3232.	SAPIENT CONSULTING PVT. LTD.	DELHI
3233.	SAPIENT CONSULTING PVT. LTD.	GHAZIABAD
3234.	SAPIENT CONSULTING PVT. LTD.	GURGAON
3235.	SAPIENT CONSULTING PVT. LTD.	JALANDHAR
3236.	SAPIENT CONSULTING PVT. LTD.	NEW DELHI
3237.	SAPIENT NITRO	BANGALORE
3238.	SAPPIO CONSULTANCY SERVICES PVT. LTD.	KOCHI
3239.	SARASWATHI HOSPITAL	COIMBATORE
3240.	SAS POWER INDUSTRIES FZE	CHENNAI

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3241.	SAS R&D (I) PVT. LTD.	PUNE
3242.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	BANGALORE
3243.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	CHENNAI
3244.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	MAYILADUTHURAI
3245.	SASKEN COMMUNICATION TECHNOLOGIES LTD.	PUNE
3246.	SATYAM COMPUTERS SERVICE LTD.	BANGALORE
3247.	SATYAM VENTURE	CHENNAI
3248.	SATYAM VENTURE ENGINEERING SERVICES	PUNE
3249.	SAUDI ARABIAN BECHTEL CO.	MALAPPURAM
3250.	SAUDI TABREED DISTRICT COOLING CO.	AL KHOBAR
3251.	SAURASHTRA CHEMICALS DIVISION OF NIRMA LTD.	DWARKA
3252.	SCHAEFFLER (FAG BEARINGS (I) LTD.	CHENNAI
3253.	SCHINDLER (I) PVT. LTD.	PUNE
3254.	SCHLUMBERGER (I) TECHNOLOGY CENTER PVT. LTD.	CHENNAI
3255.	SCHLUMBERGER (I) TECHNOLOGY CENTER PVT. LTD.	PUNE
3256.	SCHNEIDER ELECTRIC (I) PVT. LTD.	BANGALORE
3257.	SCHNEIDER ELECTRIC (I) PVT. LTD.	BELGAUM
3258.	SCHNEIDER ELECTRIC (I) PVT. LTD.	CHENNAI
3259.	SCHNEIDER ELECTRIC (I) PVT. LTD.	COIMBATORE
3260.	SCHNEIDER ELECTRIC (I) PVT. LTD.	DUBAI
3261.	SCHNEIDER ELECTRIC (I) PVT. LTD.	HOSUR
3262.	SCHNEIDER ELECTRIC (I) PVT. LTD.	SECUNDERABAD
3263.	SCHNEIDER PROTOTYPING (I) PVT. LTD.	VELLORE
3264.	SCHNELLECKE JEENA LOGISTICS (I) PVT. LTD.	PUNE
3265.	SCHWING STETTER (I) PVT. LTD.	MUMBAI
3266.	SCHWING STETTER (I) PVT. LTD.	PUNE
3267.	SCIENTECHNIC LLC	CHENNAI
3268.	SCIENTECHNIC LLC	DUBAI
3269.	SCIENTECHNIC LLC	TINDIVANAM
3270.	SCIENTIFIC GAMES CORP.	BANGALORE
3271.	SCIENTIFIC PUBLISHING SERVICES (P) LTD.	CHENNAI
3272.	SCIENTIFIC PUBLISHING SERVICES (P) LTD.	TRICHY
3273.	SCIT LTD.	INDORE
3274.	SCOPE INTERNATIONAL PVT. LTD.	ARIYALUR
3275.	SCOPE INTERNATIONAL PVT. LTD.	CHENNAI
3276.	SCOTTISH LEGAL AID BOARD	EDINBURGH
3277.	SCRY ANALYTICS	NEW DELHI
3278.	SD MIDDLE EAST LLC	HYDERABAD
3279.	SDG SOFTWARE (I) PVT. LTD.	NOIDA
3280.	SE BLADES LTD.	AHMEDABAD
3281.	SE BLADES LTD.	TEZPUR
3282.	SEA & LAND DRILLING CONTRACTORS INC.	THANE
3283.	SEAGATE TECHNOLOGY HDD (I) PVT. LTD.	BANGALORE
3284.	SEAGATE TECHNOLOGY HDD (I) PVT. LTD.	PARAMAKUDI
3285.	SEAGATE TECHNOLOGY HDD (I) PVT. LTD.	PUNE
3286.	SEARS IT & MANAGEMENT SERVICES (I) PVT. LTD.	PUNE
3287.	SEASIA INFOTECH PVT. LTD. MOHALI	BATHINDA
3288.	SECO TOOLS	PUNE
3289.	SECUDE SOLUTIONS	CHENNAI
3290.	SECURE METERS LTD.	RAJSAMAND
3291.	SECURE METERS LTD.	UDAIPUR
3292.	SECURITY TECH ENTERPRISES	NALASOPARA
3293.	SEDEMAC MECHATRONICS PVT. LTD.	PUNE
3294.	SEMBCORP MARINE LTD.	SINGAPORE
3295.	SEMIFI INTEGRATED TECHNOLOGIES	BANGALORE
3296.	SEMILON TECHNOLOGIES PVT. LTD.	THIRUVANANTHAPURAM
3297.	SENIOR (I) PVT. LTD.	JAMSHEDPUR

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3298.	SENTOR ELECTRICAL TRADING LLC	DUBAI
3299.	SENVION (I) PVT. LTD.	BANGALORE
3300.	SERVEU (L.L.C)	AL-QUOZ
3301.	SESA STERLITE LTD.	VEDANTA
3302.	SESHASAYEE PAPER AND BOARDS LTD.	ERODE
3303.	SEVEN N CONSULTING PVT. LTD.	GHAZIABAD
3304.	SEW EURODRIVE (I) PVT. LTD.	TRICHY
3305.	SFO TECHNOLOGIES PVT. LTD.	BANGALORE
3306.	SFO TECHNOLOGIES PVT. LTD.	COCHIN
3307.	SFO TECHNOLOGIES PVT. LTD.	KOCHI
3308.	SGK TECHNO VENTURES	HYDERABAD
3309.	SHAHI EXPORTS PVT. LTD.	CHICKBALLAPUR
3310.	SHAHI EXPORTS PVT. LTD.	SHIMOGA
3311.	SHAKTI CONCRETE INDUSTRIES	HYDERABAD
3312.	SHAPOORJI PALLONJI & CO. PVT. LTD.	JAGDALPUR
3313.	SHAPOORJI PALLONJI MID EAST LLC	SHIMOGA
3314.	SHAPOORJI PALLONJI MIDEAST LLC	SIVAGANGAI
3315.	SHARJAH ELECTRICITY AND WATER AUTHORITY	SHARJAH
3316.	SHARQ; A SABIC AFFILIATE	KOLLAM
3317.	SHDM J SYS TECHNOLOGIES PVT. LTD.	JODHPUR
3318.	SHELL (I) MARKETS PVT. LTD.	CHENNAI
3319.	SHELL MARKETS (I) PVT. LTD.	BANGALORE
3320.	SHEOREY DIGITAL SYSTEMS LTD.	BANGALORE
3321.	SHILPI CABLE TECHNOLOGIES LTD.	NEW DELHI
3322.	SHIVPAD ENGINEERS PVT. LTD.	SALEM
3323.	SHORETEL COMMUNICATIONS PVT. LTD.	MYSORE
3324.	SHOWA (I) PVT. LTD.	AHMEDABAD
3325.	SHREE CEMENT LTD.	AJMER
3326.	SHREE CEMENT LTD.	BEAWAR
3327.	SHREE KRISHNA HOSPITAL	ANAND
3328.	SHREETECH ENGINEERING	YAMUNA NAGAR
3329.	SHRIKRISHNA HRUDAYALAYA	NAGPUR
3330.	SHRIRAM PISTONS & RINGS LTD.	AJMER
3331.	SHRIRAM PISTONS & RINGS LTD.	ALWAR
3332.	SHRIRAM PISTONS & RINGS LTD.	BARABANKI
3333.	SHRIRAM PISTONS & RINGS LTD.	BHIWADI
3334.	SHRIRAM PISTONS & RINGS LTD.	DHARUHERA
3335.	SHRIRAM PISTONS & RINGS LTD.	FARIDABAD
3336.	SHRIRAM PISTONS & RINGS LTD.	GHAZIABAD
3337.	SHRIRAM PISTONS & RINGS LTD.	KHETRI
3338.	SHRIRAM PISTONS & RINGS LTD.	RAMPUR
3339.	SHRISHTI BIZ CONSULTANTS	CHENNAI
3340.	SICGIL INDUSTRIAL GASES LTD.	VADODARA
3341.	SIDDHA DEVELOPMENT RESEARCH AND CONSULTANTS	BHUBANESWAR
3342.	SIECHEM TECHNOLOGIES PVT. LTD.	CHENNAI
3343.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	AURANGABAD
3344.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	BANGALORE
3345.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	BHAGALPUR
3346.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	BHARATPUR
3347.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	CARANZALEM
3348.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	CHENNAI
3349.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	CUDDALORE
3350.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	DELHI
3351.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	DHUBRI
3352.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	DUBAI
3353.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	GURGAON
3354.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	KOLKATA

S.NO.	NAME	LOCATION
3355.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	MARGAO
3356.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	MASDAR
3357.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	MUMBAI
3358.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	NASHIK
3359.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	PANJIM
3360.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	PUNE
3361.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	SHIMOGA
3362.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	VASCO
3363.	SIEMENS TECHNOLOGY AND SERVICES PVT. LTD.	VERNA
3364.	SIEMON CABLING SOLUTIONS PVT. LTD.	HYDERABAD
3365.	SIERRA ATLANTIC SOFTWARE SERVICES LTD.	CHENNAI
3366.	SIFY TECHNOLOGIES LTD.	CHENNAI
3367.	SIFY TECHNOLOGIES LTD.	CUDDALORE
3368.	SIFY TECHNOLOGIES LTD.	NEW DELHI
3369.	SIGACHI INDUSTRIES PVT. LTD.	SECUNDERABAD
3370.	SIGED EMIRATES L.L.C	THRISSUR
3371.	SIGMA ELECTRIC MANUFACTURING CORPORATION	LONAVLA
3372.	SIGMA ELECTRIC MANUFACTURING CORPORATION	PUNE
3373.	SIGMA ENGINEERING WORKS LLC	CHENNAI
3374.	SIGNION SYSTEMS PVT. LTD.	HYDERABAD
3375.	SIGNODE (I) LTD.	BILASPUR
3376.	SIGNODE (I) LTD.	DHARWAD
3377.	SILICON IMAGE (I) RESEARCH AND DEVELOP	HYDERABAD
3378.	SILICUS	PUNE
3379.	SILMAX TOOLS (I) PVT. LTD.	BANGALORE
3380.	SILTRONIC SINGAPORE PTE LTD.	HOUGANG
3381.	SILVERTECH MIDDLE EAST	JEBEL ALI
3382.	SILVERTECH MIDDLE EAST FZCO	CHENNAI
3383.	SILVERTECH MIDDLE EAST FZCO	COIMBATORE
3384.	SIMPLEX INFRASTRUCTURES LTD.	MIDNAPORE
3385.	SIMPSON &CO.LTD.	CHENNAI
3386.	SINGAPORE OXYGEN AIRLIQUIDE PTE LTD.	CHENNAI
3387.	SIS (I) PVT. LTD.	HYDERABAD
3388.	SIVASAKTHI PRECISION TOOLS	COIMBATORE
3389.	SIXDEE TELECOM SOLUTION PVT. LTD.	BHAGALPUR
3390.	SKARDIN INDUSTRIAL CORP	PONDICHERRY
3391.	SKAVA SYSTEMS	TIRUPPUR
3392.	SKF (I) LTD.	BANGALORE
3393.	SKF (I) LTD.	CHENNAI
3394.	SKF (I) LTD.	HARIDWAR
3395.	SKF (I) LTD.	KOLKATA
3396.	SKF (I) LTD.	MEDAK
3397.	SKF (I) LTD.	PUNE
3398.	SKF (I) LTD.	PUNE
3399.	SKF (I) LTD.	SOLAPUR
3400.	SKIDATA BANGALORE PVT. LTD.	BANGALORE
3401.	SKILLNET SOLUTIONS (I) PVT. LTD.	INDORE
3402.	SKYHIGH NETWORKS	BANGALORE
3403.	SL LUMAX	BURDWAN
3404.	SLING MEDIA PVT. LTD.	BANGALORE
3405.	SLK SOFTWARE SERVICES PVT. LTD.	BANGALORE
3406.	SMART SMILES DENTAL CLINIC	MUMBAI
3407.	SMARTPLAY AN ARICENT CO.	BANGALORE
3408.	SMARTPLAY TECHNOLOGIES	MADHAPUR
3409.	SMARTPLAY TECHNOLOGIES (I) PVT. LTD.	PEDANA
3410.	SMARTRON (I) PVT. LTD.	HYDERABAD
3411.	SMARTSTREAM TECHNOLOGIES	VELLORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3412.	SMC PNEUMATICS (I) PVT. LTD.	DELHI
3413.	SMILE DENTAL CLINIC	VIZIANAGARAM
3414.	SML ENTERPRISES	CHENNAI
3415.	SML ISUZU LTD.	GURDASPUR
3416.	SMOE PTE LTD.	SINGAPORE
3417.	SMR AUTOMOTIVE SYSTEMS (I) LTD.	KADAYANALLUR
3418.	SMR HR TECHNOLOGIES	CHENNAI
3419.	SMS (I) PVT. LTD.	COIMBATORE
3420.	SMS (I) PVT. LTD.	JAIPUR
3421.	SMT. K. NAVALE COLLEGE OF PHYSIOTHERAPY	VADODARA
3422.	SN INDUSTRIAL CONSULTANTS	BANGALORE
3423.	SNAMPROGETTI S.A LTD.	SRINGERI
3424.	SNAPDEAL	BANGALORE
3425.	SNAPDEAL	GURGAON
3426.	SNAPDEAL	SONIPAT
3427.	SNC LAVALIN ARABIA	RAJAPALAYAM
3428.	SO INFOTECH	DERABASSI
3429.	SOBHA LLC	DUBAI
3430.	SOCIETE GENERALE GLOBAL SOLUTION CENTRE	BANGALORE
3431.	SOCTRONICS TECHNOLOGIES PVT. LTD.	HYDERABAD
3432.	SODEXO	BANGALORE
3433.	SOFT DESIGNERS	BANGALORE
3434.	SOFTWARE AG BANGALORE TECHNOLOGIES PVT. LTD.	BANGALORE
3435.	SOFTWARE AG BANGALORE TECHNOLOGIES PVT. LTD.	CHENNAI
3436.	SOFTWARE AG BANGALORE TECHNOLOGIES PVT. LTD.	KURNOOL
3437.	SOFTWARE AG BANGALORE TECHNOLOGIES PVT. LTD.	NAGPUR
3438.	SOFTWARE DEVELOPMENT INSTITUTE	BANGALORE
3439.	SOFTWARE PARADIGMS INFOTECH PVT. LTD.	MYSORE
3440.	SOFTWARE TECHNOLOGY PARKS OF INDIA	GHAZIABAD
3441.	SOFTWARE TECHNOLOGY PARKS OF INDIA	MOHALI
3442.	SOFTWARE TECHNOLOGY PARKS OF INDIA	NOIDA
3443.	SOHAR ALUMINIUM	AHMEDABAD
3444.	SOHAR ALUMINIUM	SOHAR
3445.	SOLARTIS TECHNOLOGIES PVT. LTD.	CHENNAI
3446.	SOLARWINDS	CHENNAI
3447.	SOMA ISOLUX SURAT HAZIRA TOLLWAY PVT. LTD.	VYARA
3448.	SOMI CONVEYOR BELTING LTD.	JODHPUR
3449.	SONATA SOFTWARE LTD.	BANGALORE
3450.	SONATA SOFTWARE LTD.	HYDERABAD
3451.	SONICWALL INFOSECURITY PVT. LTD.	BANGALORE
3452.	SONITEK INTERNATIONAL	NEW DELHI
3453.	SONUS NETWORKS PVT. LTD.	BANGALORE
3454.	SONY (I) SOFTWARE CENTRE PVT. LTD.	BANGALORE
3455.	SONY (I) SOFTWARE CO.	CHENNAI
3456.	SONY MIDDLE EAST AND AFRICA	MUMBAI
3457.	SOPRA (I) PVT. LTD.	NEW DELHI
3458.	SOPRA (I) PVT. LTD.	NOIDA
3459.	SOTI (I) PVT. LTD.	FARIDABAD
3460.	SOURCESOL INTERACTIVE TECHNOLOGIES PRIVA	TIRUCHIRAPPALLI
3461.	SOUTH INDIAN BANK IT DIVISION	THRISSUR
3462.	SOUTH WEST CERTIFICATION SERVICES	CHENNAI
3463.	SPAN INFOTECH (I) PVT. LTD.	BANGALORE
3464.	SPAN INFOTECH (I) PVT. LTD.	MOHALI
3465.	SPECIAL TECHNICAL SERVICES LLC	KARUR
3466.	SPECIAL TECHNICAL SERVICES LLC	MUSCAT
3467.	SPECIALIST SERVICES LLC	AL QOUZE
3468.	SPECTRANET NIGERIA LTD.	MUMBAI

S.NO.	NAME	LOCATION
3469.	SPECTRIS TECHNOLOGIES PVT. LTD.	NAVI MUMBAI
3470.	SPECTRON ENGINEERS PVT. LTD.	ERNAKULAM
3471.	SPECTRUM DYES & CHEMICALS PVT. LTD.	SURAT
3472.	SPICER (I) PVT. LTD.	PANTNAGAR
3473.	SPICER (I) PVT.LTD.	DHARWAD
3474.	SPIE OIL AND GAS SERVICES MIDDLE EAST LTD.	NAGERCOIL
3475.	SPIGOT SOFTWARE	BANGALORE
3476.	SPIME (I) TECHNOLOGIES	CHENNAI
3477.	SPIRAX SARCO (I) PVT. LTD.	CHENNAI
3478.	SPIRENT COMMUNICATIONS PVT. LTD.	MYSORE
3479.	SPOYL TECH SOLUTIONS PVT.LTD.	BANGALORE
3480.	SPRINKLR (I) PVT. LTD.	SHIMOGA
3481.	SPUN MICRO PROCESSING PVT. LTD.	GURGAON
3482.	SQS (I) BFSI LTD.	CHENNAI
3483.	SREE HARI ENTERPRISES	BANGALORE
3484.	SRF LTD.	CHENNAI
3485.	SRI BALAMURUGAN ENGG. WORKS PVT. LTD.	PUDUKKOTTAI
3486.	SRIJA EDUCATION AND RESEARCH FOUNDATION	HYDERABAD
3487.	SRISHTI ENGG. SERVICES	HOSUR
3488.	SRISHTI TECHNET PVT. LTD.	KOTA
3489.	SRM TECHNOLOGIES PVT.LTD.	CHENNAI
3490.	SRS ENTERPRISES	PUNE
3491.	SSA INFOSYSTEM PVT. LTD.	NOIDA
3492.	ST. MARTHA'S HOSPITAL	BANGALORE
3493.	STANDOUT IT SOLUTIONS	KOTHAMANGALAM
3494.	STAR CEMENT ADITYA BIRLA GROUP ULTRATECH	BHILAI
3495.	STAR CEMENT CO.	UDUPI
3496.	STAR GULF BOS-SHELF LLC	KANNUR
3497.	STARLITE LIGHTING LTD.	NASHIK
3498.	STATE BANK OF (I) LTD.	SATHYAMANGALAM
3499.	STATE BANK OF HYDERABAD	HYDERABAD
3500.	STATE BANK OF PATIALA	KARNAL
3501.	STATE BANK OF TRAVANCORE	NAVI MUMBAI
3502.	STATE INSTITUTE OF RURAL DEVELOPMENT	AIZAWL
3503.	STAYTOP IT SOLUTIONS PVT. LTD.	HYDERABAD
3504.	STAYZILLA	CHENNAI
3505.	STEAG O&M CO. PVT. LTD.	VISAKHAPATNAM
3506.	STEEL AUTHORITY OF (I) LTD.	BOKARO
3507.	STEEL AUTHORITY OF (I) LTD.	KOLKATA
3508.	STEEL EXCHANGE (I) LTD.	VISAKHAPATNAM
3509.	STEEL EXCHANGE (I) LTD.	VIZIANAGARAM
3510.	STEELCASE ASIA PACIFIC HOLDING (I) PVT. LTD.	PUNE
3511.	STELIS BIOPHARMA PVT. LTD.	BANGALORE
3512.	STEP ELECTRONICS PVT. LTD.	BANGALORE
3513.	STERIA (I) LTD.	CHENNAI
3514.	STERIA (I) LTD.	NOIDA
3515.	STERLING & WILSON PVT. LTD.	KOLKATA
3516.	STERLING HOLIDAYS	VILLUPURAM
3517.	STERLITE COPPER	TUTICORIN
3518.	STERLITE TECHNOLOGIES LTD.	PUNE
3519.	STESALIT SYSTEMS LTD.	BANGALORE
3520.	STIGASOFT PVT. LTD.	PADRAUNA
3521.	STMICROELECTRONICS	GREATER NOIDA
3522.	STMICROELECTRONICS PVT. LTD.	BADARPUR
3523.	STOCK REDLER (I) PVT. LTD.	BANGALORE
3524.	STONE (I) LTD.	KOLKATA
3525.	STORK RUBBER PRODUCTS PVT. LTD.	DELHI

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3526.	STORK RUBBER PRODUCTS PVT. LTD.	GURGAON
3527.	STOVEKRAFT PVT. LTD.	BANGALORE
3528.	STRAITS ORTHOPAEDICS	TRICHY
3529.	STREAM INDUSTRIAL & ENGINEERING	AL SADD
3530.	STRONGMOMENTS TECHNOLOGIES PVT. LTD.	DELHI
3531.	STRUCTURAL SOLUTIONS PVT. LTD.	HYDERABAD
3532.	STRUCTURAL SOLUTIONS PVT. LTD.	MUSSOORIE
3533.	STRYKER GLOBAL TECHNOLOGY CENTER PVT. LTD.	BAHADURGARH
3534.	STRYKER GLOBAL TECHNOLOGY CENTER PVT. LTD.	GURGAON
3535.	SUBEX LTD.	BANGALORE
3536.	SUBEX LTD.	SAMBHAR LAKE
3537.	SUBROS LTD.	NOIDA
3538.	SUEX TRACTBEL OPERATION & MAINTENANCE CO	KUMBAKONAM
3539.	SULEKHA.COM NEW MEDIA PVT. LTD.	CHENNAI
3540.	SULZER TECH (I) PVT. LTD.	PUNE
3541.	SUMERU VERDE TECHNOLOGIES PVT. LTD.	PATIALA
3542.	SUNBEAM AUTO PVT. LTD.	GURGAON
3543.	SUNDARAM AUTO COMPONENTS LTD.	CHENNAI
3544.	SUNDARAM AUTO COMPONENTS LTD.	HOSUR
3545.	SUNDARAM AUTO COMPONENTS LTD.	KODAIKANAL
3546.	SUNDARAM AUTO COMPONENTS LTD.	VELLORE
3547.	SUNDARAM CLAYTON LTD.	CHENGALPET
3548.	SUNDARAM CLAYTON LTD.	CHENNAI
3549.	SUNDARAM CLAYTON LTD.	HOSUR
3550.	SUNDARAM CLAYTON LTD.	SIVAKASI
3551.	SUNDARAM INDUSTRIES PVT. LTD.	CHENNAI
3552.	SUNDRAM FASTENERS LTD.	CHENNAI
3553.	SUNDRAM FASTENERS LTD.	COIMBATORE
3554.	SUNDRAM FASTENERS LTD.	GOBICHETTIPALAYAM
3555.	SUNDRAM FASTENERS LTD.	HOSUR
3556.	SUNDRAM FASTENERS LTD.	PILER
3557.	SUNDRAM FASTENERS LTD.	SALEM
3558.	SUNDRAM FASTENERS LTD.	TIRUVANNAMALAI
3559.	SUNGARD GLOBAL SOLUTIONS PUNE	PUNE
3560.	SUNMACHX ENGINEERING INDUSTRIES	THANJAVUR
3561.	SUNTEC BUSINESS SOLUTIONS	PALAKKAD
3562.	SUNTEC BUSINESS SOLUTIONS	TECHNOPARK
3563.	SUNTEC BUSINESS SOLUTIONS PVT. LTD.	THAKURLI
3564.	SUPREME INDUSTRIAL WORKS	TIRUNELVELI
3565.	SUPREME TELECOMMUNICATIONS LTD.	BANGALORE
3566.	SURELOCK PLASTICS PVT. LTD.	KHARAGPUR
3567.	SUREWAVES MEDIATECH PVT. LTD.	BANGALORE
3568.	SUTURES (I) PVT. LTD.	BANGALORE
3569.	SUYATI TECHNOLOGIES PVT. LTD.	KOCHI
3570.	SUZLON ENERGY LTD.	NAGERCOIL
3571.	SUZLON ENERGY LTD.	PUNE
3572.	SUZUKI MOTOR GUJARAT	KAITHAL
3573.	SWAIDAN TRADING CO. LLC	DUBAI
3574.	SWIFT PLM SERVICES	PUNE
3575.	SWIFTANT IT SOLUTIONS (I) PVT. LTD.	HOSUR
3576.	SYMANTEC SOFTWARE (I) PVT. LTD.	BANGALORE
3577.	SYMANTEC SOFTWARE (I) PVT. LTD.	CHENNAI
3578.	SYMANTEC SOFTWARE (I) PVT. LTD.	EDAPPAL
3579.	SYMANTEC SOFTWARE (I) PVT. LTD.	KOLKATA
3580.	SYMANTEC SOFTWARE (I) PVT. LTD.	LUCKNOW
3581.	SYMANTEC SOFTWARE (I) PVT. LTD.	PUNE
3582.	SYMANTEC SOFTWARE (I) PVT. LTD.	THRISSUR



S.NO.	NAME	LOCATION
3583.	SYMBIOSIS TECHNOLOGY	ABU DHABI
3584.	SYMBOL TECHNOLOGIES (I) PVT. LTD.	BANGALORE
3585.	SYMBOL TECHNOLOGIES (I) PVT. LTD.	DHARWAD
3586.	SYMPHONY TELECA CORPORATION	BANGALORE
3587.	SYMPHONY TELECA CORPORATION	NEW DELHI
3588.	SYMPHONY TELECA CORPORATION	PUNE
3589.	SYNAPSE TECHNO DESIGN INNOVATIONS PVT. LTD.	BANGALORE
3590.	SYNECHRON TECHNOLOGIES PVT.LTD.	BANGALORE
3591.	SYNECHRON TECHNOLOGIES PVT.LTD.	KOLAR
3592.	SYNECHRON TECHNOLOGIES PVT.LTD.	PUNE
3593.	SYNECHRON TECHNOLOGIES PVT.LTD.	SATARA
3594.	SYNERGIES CASTINGS LTD.	CHENNAI
3595.	SYNERGY HOSPITAL	INDORE
3596.	SYNERGY MARINE PTE LTD.	CHENNAI
3597.	SYNERGY MARITIME PVT. LTD.	PUDUKOTTAI
3598.	SYNERZIP INFOTECH	PUNE
3599.	SYNGENE INTERNATIONAL LTD. (A BIOCON	BANGALORE
3600.	SYNIVERSE TECHNOLOGIES	BANGALORE
3601.	SYNOPSISYS (I) PVT. LTD.	BANGALORE
3602.	SYNOPSISYS (I) PVT. LTD.	DELHI
3603.	SYNOPSISYS (I) PVT. LTD.	FARIDABAD
3604.	SYNOPSISYS (I) PVT. LTD.	GREATER NOIDA
3605.	SYNOPSISYS (I) PVT. LTD.	NEW DELHI
3606.	SYNOPSISYS (I) PVT. LTD.	PITAMPURA
3607.	SYNTEL ARVIND LTD.	PUNE
3608.	SYNTEL INTERNATIONAL PVT. LTD.	CHENNAI
3609.	SYNTEL INTERNATIONAL PVT. LTD.	TIRUNELVELI
3610.	SYNTEL LTD.	CHENNAI
3611.	SYNTEL LTD.	COIMBATORE
3612.	SYNTEL PVT. LTD.	HYDERABAD
3613.	SYNTEL TELECOM  ARVIND LTD.	PUNE
3614.	SYNTHESIS WINDING TECHNOLOGIES PVT. LTD.	BANGALORE
3615.	SYSO INFOTECH	CHENNAI
3616.	SYSCOM CORP. LTD.	GHAZIABAD
3617.	SYSTEM LEVEL SOLUTIONS PVT. LTD.	ANAND
3618.	SYSTEMS PLUS TRANSFORMATION LLP	PUNE
3619.	TAFE(TRACTORS AND FARM EQUIPMENT LTD.	HUBLI
3620.	TAG CORPORATION	CHENNAI
3621.	TAGROS CHEMICALS (I) LTD.	CUDDALORE
3622.	TAJ AIR LTD.	MUMBAI
3623.	TAKREER	ABU DHABI
3624.	TAKREER	ADNOC
3625.	TAKREER	ANGAMALY
3626.	TAKREER	ERNAKULAM
3627.	TAKREER	KOTTAYAM
3628.	TAKYEEF ELECTROMECHANICAL W.L.L	DOHA
3629.	TALENTICA SOFTWARE (I) PVT. LTD.	PUNE
3630.	TALLY SOLUTIONS PVT. LTD.	GHAZIABAD
3631.	TARENTO TECHNOLOGIES	BANGALORE
3632.	TARGET CORPORATION (I) PVT. LTD.	BANGALORE
3633.	TARGET ENGINEERING CONSTRUCTION CO. LLC	ABU DHABI
3634.	TARGETING MANTRA	NEW DELHI
3635.	TATA ADVANCED MATERIALS LTD.	BANGALORE
3636.	TATA ADVANCED SYSTEMS LTD.	ADIBATLA
3637.	TATA ADVANCED SYSTEMS LTD.	BALAPUR
3638.	TATA ADVANCED SYSTEMS LTD.	HYDERABAD
3639.	TATA ADVANCED SYSTEMS LTD.	JAMSHEDPUR

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3640.	TATA ADVANCED SYSTEMS LTD.	KARAIKUDI
3641.	TATA ADVANCED SYSTEMS LTD.	WARANGAL
3642.	TATA AUTOCOM SYSTEMS LTD.	BASIRHAT
3643.	TATA AUTOCOMP HENDRICKSON SUSPENSIONS PVT. LTD.	PUNE
3644.	TATA AUTOCOMP SYSTEMS LTD.	PUNE
3645.	TATA AUTOMOTIVE LTD.	NAGPUR
3646.	TATA AUTOMOTIVE LTD.	SHIMOGA
3647.	TATA AUTOMOTIVE LTD.	WARDHA
3648.	TATA COMMUNICATIONS LTD.	CHENNAI
3649.	TATA COMMUNICATIONS LTD.	NAVI MUMBAI
3650.	TATA CONSULTANCY SERVICES LTD.	AHMEDABAD
3651.	TATA CONSULTANCY SERVICES LTD.	AJMER
3652.	TATA CONSULTANCY SERVICES LTD.	ALAPPUZHA
3653.	TATA CONSULTANCY SERVICES LTD.	ALIGARH
3654.	TATA CONSULTANCY SERVICES LTD.	AMBIKAPUR
3655.	TATA CONSULTANCY SERVICES LTD.	AURANGABAD
3656.	TATA CONSULTANCY SERVICES LTD.	BAGALKOT
3657.	TATA CONSULTANCY SERVICES LTD.	BAHADURGARH
3658.	TATA CONSULTANCY SERVICES LTD.	BANGALORE
3659.	TATA CONSULTANCY SERVICES LTD.	BARABANKI
3660.	TATA CONSULTANCY SERVICES LTD.	BHOPAL
3661.	TATA CONSULTANCY SERVICES LTD.	BHUBANESWAR
3662.	TATA CONSULTANCY SERVICES LTD.	CHANDIGARH
3663.	TATA CONSULTANCY SERVICES LTD.	CHENNAI
3664.	TATA CONSULTANCY SERVICES LTD.	COIMBATORE
3665.	TATA CONSULTANCY SERVICES LTD.	CUDDALORE
3666.	TATA CONSULTANCY SERVICES LTD.	DEHRADUN
3667.	TATA CONSULTANCY SERVICES LTD.	DELHI
3668.	TATA CONSULTANCY SERVICES LTD.	DOMBIVLI
3669.	TATA CONSULTANCY SERVICES LTD.	ERNAKULAM
3670.	TATA CONSULTANCY SERVICES LTD.	FARIDABAD
3671.	TATA CONSULTANCY SERVICES LTD.	GHAZIABAD
3672.	TATA CONSULTANCY SERVICES LTD.	GUNTUR
3673.	TATA CONSULTANCY SERVICES LTD.	GURGAON
3674.	TATA CONSULTANCY SERVICES LTD.	HAZARIBAGH
3675.	TATA CONSULTANCY SERVICES LTD.	HOOGHLY
3676.	TATA CONSULTANCY SERVICES LTD.	HOSUR
3677.	TATA CONSULTANCY SERVICES LTD.	HOWRAH
3678.	TATA CONSULTANCY SERVICES LTD.	HYDERABAD
3679.	TATA CONSULTANCY SERVICES LTD.	INDORE
3680.	TATA CONSULTANCY SERVICES LTD.	JABALPUR
3681.	TATA CONSULTANCY SERVICES LTD.	JAIPUR
3682.	TATA CONSULTANCY SERVICES LTD.	KADUNGATHUKUNDU
3683.	TATA CONSULTANCY SERVICES LTD.	KAKINADA
3684.	TATA CONSULTANCY SERVICES LTD.	KALPAKKAM
3685.	TATA CONSULTANCY SERVICES LTD.	KALYAN
3686.	TATA CONSULTANCY SERVICES LTD.	KARAIKAL
3687.	TATA CONSULTANCY SERVICES LTD.	KOLKATA
3688.	TATA CONSULTANCY SERVICES LTD.	KOTA
3689.	TATA CONSULTANCY SERVICES LTD.	KUMBAKONAM
3690.	TATA CONSULTANCY SERVICES LTD.	LUCKNOW
3691.	TATA CONSULTANCY SERVICES LTD.	LUDHIANA
3692.	TATA CONSULTANCY SERVICES LTD.	MADANAPALLE
3693.	TATA CONSULTANCY SERVICES LTD.	MADURANTHAKAM
3694.	TATA CONSULTANCY SERVICES LTD.	MANDREM
3695.	TATA CONSULTANCY SERVICES LTD.	MEDCHAL
3696.	TATA CONSULTANCY SERVICES LTD.	MUMBAI

S.NO.	NAME	LOCATION
3697.	TATA CONSULTANCY SERVICES LTD.	MYDUKUR
3698.	TATA CONSULTANCY SERVICES LTD.	NAGERCOIL
3699.	TATA CONSULTANCY SERVICES LTD.	NAGPUR
3700.	TATA CONSULTANCY SERVICES LTD.	NAMAKKAL
3701.	TATA CONSULTANCY SERVICES LTD.	NAVI MUMBAI
3702.	TATA CONSULTANCY SERVICES LTD.	NEW DELHI
3703.	TATA CONSULTANCY SERVICES LTD.	NEYVELI
3704.	TATA CONSULTANCY SERVICES LTD.	NOIDA
3705.	TATA CONSULTANCY SERVICES LTD.	PRODDATUR
3706.	TATA CONSULTANCY SERVICES LTD.	PUDUCHERRY
3707.	TATA CONSULTANCY SERVICES LTD.	PUNE
3708.	TATA CONSULTANCY SERVICES LTD.	SALEM
3709.	TATA CONSULTANCY SERVICES LTD.	SAVDA
3710.	TATA CONSULTANCY SERVICES LTD.	SHYAMNAGAR
3711.	TATA CONSULTANCY SERVICES LTD.	SIDDIPET
3712.	TATA CONSULTANCY SERVICES LTD.	THANE
3713.	TATA CONSULTANCY SERVICES LTD.	THRISSUR
3714.	TATA CONSULTANCY SERVICES LTD.	TIRUNELVELI
3715.	TATA CONSULTANCY SERVICES LTD.	TRIVANDRUM
3716.	TATA CONSULTANCY SERVICES LTD.	TUMKUR
3717.	TATA CONSULTANCY SERVICES LTD.	UDAIPUR
3718.	TATA CONSULTANCY SERVICES LTD.	UDHAMPUR
3719.	TATA CONSULTANCY SERVICES LTD.	VISAKHAPATNAM
3720.	TATA CUMMINS PVT. LTD.	BARAMATI
3721.	TATA CUMMINS PVT. LTD.	PUNE
3722.	TATA ELXSI LTD.	BANGALORE
3723.	TATA ELXSI LTD.	CHENNAI
3724.	TATA ELXSI LTD.	ERODE
3725.	TATA ELXSI LTD.	KAKINADA
3726.	TATA ELXSI LTD.	KARKALA
3727.	TATA ELXSI LTD.	MADURAI
3728.	TATA ELXSI LTD.	NAGERCOIL
3729.	TATA ELXSI LTD.	NAMAKKAL
3730.	TATA ELXSI LTD.	PUNE
3731.	TATA ELXSI LTD.	THIRUVANANTHAPURAM
3732.	TATA ELXSI LTD.	THRISSUR
3733.	TATA ELXSI LTD.	TIRUR
3734.	TATA ELXSI LTD.	TRIVANDRUM
3735.	TATA ELXSI LTD.	TUMKUR
3736.	TATA JOHNSON CONTROLS AUTOMOTIVE LTD.	PUNE
3737.	TATA MOTORS LTD.	JAMSHEDPUR
3738.	TATA MOTORS LTD.	LUCKNOW
3739.	TATA MOTORS LTD.	NEW DELHI
3740.	TATA MOTORS LTD.	PANTNAGAR
3741.	TATA MOTORS LTD.	PUNE
3742.	TATA MOTORS LTD.	SIRSA
3743.	TATA MOTORS LTD.	VIZIANAGARAM
3744.	TATA POWER CO. LTD.	BANGALORE
3745.	TATA POWER DELHI DISTRIBUTION LTD.	GURGAON
3746.	TATA POWER SED	AKOLA
3747.	TATA POWER SOLAR SYSTEM LTD.	BANGALORE
3748.	TATA PROJECTS LTD.	NELLORE
3749.	TATA PROJECTS LTD.	VISAKHAPATNAM
3750.	TATA STEEL LTD.	BANGALORE
3751.	TATA TECHNOLOGIES LTD.	AURANGABAD
3752.	TATA TECHNOLOGIES LTD.	BANGALORE
3753.	TATA TECHNOLOGIES LTD.	BHUBANESWAR

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3754.	TATA TECHNOLOGIES LTD.	CHINCHWAD
3755.	TATA TECHNOLOGIES LTD.	DELHI
3756.	TATA TECHNOLOGIES LTD.	INDORE
3757.	TATA TECHNOLOGIES LTD.	JAMSHEDPUR
3758.	TATA TECHNOLOGIES LTD.	LUCKNOW
3759.	TATA TECHNOLOGIES LTD.	NAGPUR
3760.	TATA TECHNOLOGIES LTD.	PUNE
3761.	TATA TELESERVICES LTD.	CHENNAI
3762.	TAVANT TECHNOLOGIES (I) PVT. LTD.	BANGALORE
3763.	TAVISCA SOLUTIONS PVT. LTD.	AHMEDNAGAR
3764.	TAVISCA SOLUTIONS PVT. LTD.	AKOLA
3765.	TAVISCA SOLUTIONS PVT. LTD.	MUMBAI
3766.	TAVISCA SOLUTIONS PVT. LTD.	PUNE
3767.	TAYANA SOFTWARE SOLUTIONS	BANGALORE
3768.	TAYO ROLLS LTD.	JAMSHEDPUR
3769.	TCS LTD.	BANGALORE
3770.	TCS LTD.	CHENNAI
3771.	TCS LTD.	COIMBATORE
3772.	TCS LTD.	DELHI
3773.	TCS LTD.	GANDHINAGAR
3774.	TCS LTD.	GURGAON
3775.	TCS LTD.	HYDERABAD
3776.	TCS LTD.	KALYAN
3777.	TCS LTD.	LUCKNOW
3778.	TCS LTD.	MUDALIARPET
3779.	TCS LTD.	MUMBAI
3780.	TCS LTD.	NEW DELHI
3781.	TCS LTD.	NOIDA
3782.	TCS LTD.	PUNE
3783.	TCS LTD.	THANE
3784.	TCS LTD.	VILLUPURAM
3785.	TCS(TATA CONSULTANCY SERVICES)	YAMUNA NAGAR
3786.	TE CONNECTIVITY (I) PVT. LTD.	BANGALORE
3787.	TE CONNECTIVITY (I) PVT. LTD.	CHANNAPATNA
3788.	TE CONNECTIVITY (I) PVT. LTD.	PUNE
3789.	TEAK STAFFING PVT. LTD.	PUNE
3790.	TECH BIZ SOLUTIONS	JODHPUR
3791.	TECH MAHINDRA LTD.	AGRA
3792.	TECH MAHINDRA LTD.	AHMEDABAD
3793.	TECH MAHINDRA LTD.	AJMER
3794.	TECH MAHINDRA LTD.	ALAPPUZHA
3795.	TECH MAHINDRA LTD.	ALIGARH
3796.	TECH MAHINDRA LTD.	ANANTAPUR
3797.	TECH MAHINDRA LTD.	ANDAL
3798.	TECH MAHINDRA LTD.	ASANSOL
3799.	TECH MAHINDRA LTD.	BABRALA
3800.	TECH MAHINDRA LTD.	BAGALUR
3801.	TECH MAHINDRA LTD.	BALASORE
3802.	TECH MAHINDRA LTD.	BANGALORE
3803.	TECH MAHINDRA LTD.	BANTWAL
3804.	TECH MAHINDRA LTD.	BEAWAR
3805.	TECH MAHINDRA LTD.	BHADRAK
3806.	TECH MAHINDRA LTD.	BHADRAVATHI
3807.	TECH MAHINDRA LTD.	BHIMAVARAM
3808.	TECH MAHINDRA LTD.	BHONGIR
3809.	TECH MAHINDRA LTD.	BHOPAL
3810.	TECH MAHINDRA LTD.	BOKARO

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3811.	TECH MAHINDRA LTD.	CALICUT
3812.	TECH MAHINDRA LTD.	CHAMARAJANAGAR
3813.	TECH MAHINDRA LTD.	CHANDERNAGORE
3814.	TECH MAHINDRA LTD.	CHANDIGARH
3815.	TECH MAHINDRA LTD.	CHENNAI
3816.	TECH MAHINDRA LTD.	COIMBATORE
3817.	TECH MAHINDRA LTD.	CUTTACK
3818.	TECH MAHINDRA LTD.	DAVANGERE
3819.	TECH MAHINDRA LTD.	DELHI
3820.	TECH MAHINDRA LTD.	DEWAS
3821.	TECH MAHINDRA LTD.	DINDIGUL
3822.	TECH MAHINDRA LTD.	DWARKA
3823.	TECH MAHINDRA LTD.	ERODE
3824.	TECH MAHINDRA LTD.	FARIDABAD
3825.	TECH MAHINDRA LTD.	GUNTUR
3826.	TECH MAHINDRA LTD.	HARIHARA
3827.	TECH MAHINDRA LTD.	HINJEWADI
3828.	TECH MAHINDRA LTD.	HOSUR
3829.	TECH MAHINDRA LTD.	HYDERABAD
3830.	TECH MAHINDRA LTD.	INDORE
3831.	TECH MAHINDRA LTD.	JAGADHRI
3832.	TECH MAHINDRA LTD.	KADAPA
3833.	TECH MAHINDRA LTD.	KADIRI
3834.	TECH MAHINDRA LTD.	KAKINADA
3835.	TECH MAHINDRA LTD.	KALYAN
3836.	TECH MAHINDRA LTD.	KANNUR
3837.	TECH MAHINDRA LTD.	KARNAL
3838.	TECH MAHINDRA LTD.	KOLKATA
3839.	TECH MAHINDRA LTD.	KOLLAM
3840.	TECH MAHINDRA LTD.	KOMPALLY
3841.	TECH MAHINDRA LTD.	KOTTAYAM
3842.	TECH MAHINDRA LTD.	KRISHNAGIRI
3843.	TECH MAHINDRA LTD.	KUMARAPATNAM
3844.	TECH MAHINDRA LTD.	KUMBAKONAM
3845.	TECH MAHINDRA LTD.	KUMTA
3846.	TECH MAHINDRA LTD.	LUCKNOW
3847.	TECH MAHINDRA LTD.	MADANAPALLI
3848.	TECH MAHINDRA LTD.	MADURAI
3849.	TECH MAHINDRA LTD.	MAHABOBNAGAR
3850.	TECH MAHINDRA LTD.	MAHE
3851.	TECH MAHINDRA LTD.	MANCHERIAL
3852.	TECH MAHINDRA LTD.	MANDI GOBINDGARH
3853.	TECH MAHINDRA LTD.	MARATHAHALLY
3854.	TECH MAHINDRA LTD.	MEDAK
3855.	TECH MAHINDRA LTD.	MEERUT
3856.	TECH MAHINDRA LTD.	MEPPADI
3857.	TECH MAHINDRA LTD.	MOHALI
3858.	TECH MAHINDRA LTD.	MUMBAI
3859.	TECH MAHINDRA LTD.	MYSORE
3860.	TECH MAHINDRA LTD.	NAGPUR
3861.	TECH MAHINDRA LTD.	NANDED
3862.	TECH MAHINDRA LTD.	NASHIK
3863.	TECH MAHINDRA LTD.	NEW DELHI
3864.	TECH MAHINDRA LTD.	NIZAMABAD
3865.	TECH MAHINDRA LTD.	NOIDA
3866.	TECH MAHINDRA LTD.	ONGOLE
3867.	TECH MAHINDRA LTD.	PALAKKAD

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3868.	TECH MAHINDRA LTD.	PALAMANER
3869.	TECH MAHINDRA LTD.	PALAMPUR
3870.	TECH MAHINDRA LTD.	PANCHKULA
3871.	TECH MAHINDRA LTD.	PANIPAT
3872.	TECH MAHINDRA LTD.	PANVEL
3873.	TECH MAHINDRA LTD.	PARVATHIPUARM
3874.	TECH MAHINDRA LTD.	PATHANAMTHITTA
3875.	TECH MAHINDRA LTD.	PATHANKOT
3876.	TECH MAHINDRA LTD.	PATIALA
3877.	TECH MAHINDRA LTD.	PENNADAM
3878.	TECH MAHINDRA LTD.	PUNE
3879.	TECH MAHINDRA LTD.	RAJASTHAN
3880.	TECH MAHINDRA LTD.	RAJGANGPUR
3881.	TECH MAHINDRA LTD.	RAMABHADRAPURAM
3882.	TECH MAHINDRA LTD.	ROURKELA
3883.	TECH MAHINDRA LTD.	RUDRAPUR
3884.	TECH MAHINDRA LTD.	SAHARANPUR
3885.	TECH MAHINDRA LTD.	SALEM
3886.	TECH MAHINDRA LTD.	SANGLI
3887.	TECH MAHINDRA LTD.	SECUNDERABAD
3888.	TECH MAHINDRA LTD.	SERAMPORE
3889.	TECH MAHINDRA LTD.	SHIMLA
3890.	TECH MAHINDRA LTD.	SHIRPUR
3891.	TECH MAHINDRA LTD.	SIKAR
3892.	TECH MAHINDRA LTD.	SILCHAR
3893.	TECH MAHINDRA LTD.	SOLAPUR
3894.	TECH MAHINDRA LTD.	SURAT
3895.	TECH MAHINDRA LTD.	TELANGNA
3896.	TECH MAHINDRA LTD.	THANE
3897.	TECH MAHINDRA LTD.	THIRUVARUR
3898.	TECH MAHINDRA LTD.	THODUPUZHA
3899.	TECH MAHINDRA LTD.	TIRUPATI
3900.	TECH MAHINDRA LTD.	TIRUPUR
3901.	TECH MAHINDRA LTD.	TRICHY
3902.	TECH MAHINDRA LTD.	UDUPI
3903.	TECH MAHINDRA LTD.	VADODARA
3904.	TECH MAHINDRA LTD.	VELLORE
3905.	TECH MAHINDRA LTD.	VIJAYAWADA
3906.	TECH MAHINDRA LTD.	VIRUDHUNAGAR
3907.	TECH MAHINDRA LTD.	VISAKHAPATNAM
3908.	TECH MAHINDRA LTD.	VIZIANAGARAM
3909.	TECH MAHINDRA LTD.	WARANGAL
3910.	TECH MAHINDRA LTD.	ZIRAKPUR
3911.	TECHNICAL EDUCATION DEPARTMENT J&K	ANANTNAG
3912.	TECHNICAL SOLUTIONS TO INDUSTRY	DUBAI
3913.	TECHNICAL SUPPLIES INTERNATIONAL CO.LLC	TIRUCHIRAPPALLI
3914.	TECHNICO INDUSTRIES LTD.	FARIDABAD
3915.	TECHNICO INDUSTRIES LTD.	NEW DELHI
3916.	TECHNIP (I) LTD.	KALYAN
3917.	TECHNIP (I) LTD.	MUMBAI
3918.	TECHNOLOGY ONE GEN.TRADING L L C	DUBAI
3919.	TECHNOLOGY VENTURES MARINE EQPT LLC	THRISSUR
3920.	TECHNOSOFT ENGINEERING PROJECTS LTD.	NAIGAON
3921.	TECHPROCESS PAYMENTS SERVICES LTD.	MUMBAI
3922.	TECTON ENGINEERING AND CONSTRUCTION CO.	CHENNAI
3923.	TECTON ENGINEERING AND CONSTRUCTION CO.	DINDIGUL
3924.	TECTON ENGINEERING AND CONSTRUCTION CO.	TUTICORIN

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3925.	TEGA INDUSTRIES LTD.	KOLKATA
3926.	TEJAS NETWORKS LTD.	BANGALORE
3927.	TEJAS NETWORKS LTD.	MUMBAI
3928.	TEJOSMA TECHNOLOGY PVT. LTD.	RAICHUR
3929.	TEK CARE (I) PVT. LTD.	CHENNAI
3930.	TEK SYSTEMS	BANGALORE
3931.	TEKIP KNOWLEDGE CONSULTING PVT. LTD.	BANGALORE
3932.	TEKNORIX SYSTEMS PVT. LTD.	VERNA
3933.	TEKTRONIX (I) PVT. LTD.	BANGALORE
3934.	TEKTRONIX COMMUNICATION	MUMBAI
3935.	TELEXCELL	NEW DELHI
3936.	TEMA BUSINESS SYSTEMS	HYDERABAD
3937.	TEMENOS (I) PVT. LTD.	BANGALORE
3938.	TEMENOS (I) PVT. LTD.	CHENNAI
3939.	TENOVA (I) PVT. LTD.	BANGALORE
3940.	TERADATA (I)	DEHRADUN
3941.	TERADATA (I) PVT. LTD.	HYDERABAD
3942.	TERADATA (I) PVT. LTD.	VIJAYAWADA
3943.	TEREX (I) PVT. LTD.	PUNE
3944.	TERRAZZO LTD.	SHARJAH
3945.	TESCO BANGALORE PVT. LTD.	BANGALORE
3946.	TESCO BANGALORE PVT. LTD.	MYSORE
3947.	TESCO HSC	NAMAKKAL
3948.	TESSOLVE SEMICONDUCTORS PVT. LTD.	BANGALORE
3949.	TESTANDVERFIFICATION SOLUTIONS PVT. LTD.	BANGALORE
3950.	TESTTEX (I) LABORATORIES PVT. LTD.	MUMBAI
3951.	TETRAPAK (I) PVT. LTD.	BANGALORE
3952.	TEVATRON TECHNOLOGIES PVT. LTD.	ALLAHABAD
3953.	TEXAS INSTRUMENTS (I) PVT. LTD.	BANGALORE
3954.	TEXAS INSTRUMENTS (I) PVT. LTD.	GHAZIABAD
3955.	TEXTRON (I) PVT. LTD.	BANGALORE
3956.	TEXTRON (I) PVT. LTD.	CHENNAI
3957.	THAI ACRYLIC FIBER CO. LTD.	KHANDWA
3958.	THALES (I) PVT. LTD.	BANGALORE
3959.	THANGAM CORPORATE SERVICES	PONDICHERRY
3960.	THE DEPOSITORY TRUST AND CLEARING CORPOR	CHENNAI
3961.	THE DHANLAXMI BANK LTD.	THRISSUR
3962.	THE HI-TECH ROBOTIC SYSTEMZ LTD.	NEW DELHI
3963.	THE ILLUSTRATORS	BANGALORE
3964.	THE INDIAN HUME PIPE CO. LRD.	DHULE
3965.	THE KANOO GROUP	ABU DHABI
3966.	THE KANOO GROUP COMMERCIAL LLC	COIMBATORE
3967.	THE MATHWORKS (I) PVT. LTD.	BANGALORE
3968.	THE PETROLEUM INSTITUTE	ABU DHABI
3969.	THE RAMCO CEMENTS LTD.	CHENNAI
3970.	THE ROYAL BANK OF SCOTLAND	GHAZIABAD
3971.	THE ROYAL BANK OF SCOTLAND	GURGAON
3972.	THE SMART TECHIES PVT.LTD.	JAIPUR
3973.	THE TATA POWER CO. LTD.	MUMBAI
3974.	THE WORLD BANK GROUP	CHENNAI
3975.	THERMAX LTD.	PUNE
3976.	THERMAX LTD.	VADODARA
3977.	THERMO FISHER SCIENTIFIC (I) PVT. LTD.	CHENNAI
3978.	THINK FUTURE TECHNOLOGIES PVT. LTD.	NAGAU
3979.	THIRUPATHY BRIGHT INDUSTRIES	TRICHY
3980.	THOMSON REUTERS	BANGALORE
3981.	THOUGHTWORKS TECHNOLOGIES (I) PVT. LTD.	CHENNAI

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
3982.	THOUGHTWORKS TECHNOLOGIES (I) PVT. LTD.	COIMBATORE
3983.	THOUGHTWORKS TECHNOLOGIES (I) PVT. LTD.	GURGAON
3984.	THOUGHTWORKS TECHNOLOGIES (I) PVT. LTD.	KANNUR
3985.	THOUGHTWORKS TECHNOLOGIES (I) PVT. LTD.	MADURAI
3986.	THRYMR SOFTWARE PVT. LTD.	SECUNDERABAD
3987.	THYROCARE TECHNOLOGIES LTD.	THANE
3988.	THYSSENKRUPP INDUSTRIES (I) PVT. LTD.	HYDERABAD
3989.	THYSSENKRUPP INDUSTRIES (I) PVT. LTD.	KOLHAPUR
3990.	THYSSENKRUPP INDUSTRIES (I) PVT. LTD.	PUNE
3991.	TIBCO SOFTWARE (I) PVT. LTD.	HYDERABAD
3992.	TIBCO SOFTWARE (I) PVT. LTD.	MUMBAI
3993.	TIBCO SOFTWARE (I) PVT. LTD.	PUNE
3994.	TIBCO SOFTWARE (I) PVT. LTD.	SATARA
3995.	TIETO	PUNE
3996.	TIETO SOFTWARE TECHNOLOGIES LTD.	CHENNAI
3997.	TIL LTD.	GARHWA
3998.	TIME ANALYTIC AND SHARED SERVICES	KANPUR
3999.	TIME INC (I)	BANGALORE
4000.	TIME TECHNOPLAST LTD.	THANE
4001.	TIMKEN ENGINEERING & RESEARCH (I) PVT. LTD.	KANNUR
4002.	TITAN CO. LTD.	BANGALORE
4003.	TITAN CO. LTD.	CHENNAI
4004.	TITAN CO. LTD.	CHIDAMBARAM
4005.	TITAN CO. LTD.	COIMBATORE
4006.	TITAN CO. LTD.	HOSUR
4007.	TITAN CO. LTD.	KOZHICODE
4008.	TITAN CO. LTD.	KRISHNAGIRI
4009.	TITAN CO. LTD.	NEW DELHI
4010.	TITAN CO. LTD.	THIRUNELVELI
4011.	TITAN CO. LTD.	TUTICORIN
4012.	TITAN CO. LTD.	VELLORE
4013.	TITAN CO. LTD.	VIRUDHUNAGAR
4014.	TMEIC INDUSTRIAL SYSTEMS (I) PVT. LTD.	BANGALORE
4015.	TML DRIVELINES LTD.	JAMSHEDPUR
4016.	TOKAI RIKA MINDA (I) PVT. LTD.	BANGALORE
4017.	TOKAI RIKA MINDA PVT. LTD.	SALEM
4018.	TOLANI MARITIME INSTITUTE	PUNE
4019.	TOLEDO ARABIA	CALICUT
4020.	TOOL ROOM ENGINEERING	CHENNAI
4021.	TORRY HARRIS BUSINESS SOLUTION PVT.LTD.	BANGALORE
4022.	TOSHIBA JSW POWER SYSTEM PVT. LTD.	GURGAON
4023.	TOSHIBA MACHINE (CHENNAI) PVT.LTD.	CHENNAI
4024.	TOSHIBA SOFTWARE (I) PVT. LTD.	BANGALORE
4025.	TOSHIBA SOFTWARE (I) PVT. LTD.	PUNE
4026.	TOSHIBA SOFTWARE (I) PVT. LTD.	SECUNDERABAD
4027.	TOSHIBA SOFTWARE (I) PVT. LTD.	SHIVAMOGGA
4028.	TOTAL OIL (I) PVT. LTD.	ERNAKULAM
4029.	TOYODA GOSEI MINDA (I) PVT. LTD.	NARNAUL
4030.	TOYODA GOSEI SOUTH (I) PVT. LTD.	BANGALORE
4031.	TOYOTA INDUSTRIES ENGINE (I) PVT. LTD.	BANGALORE
4032.	TOYOTA KIRLOSKAR AUTO PARTS PVT. LTD.	BANGALORE
4033.	TOYOTA KIRLOSKAR MOTOR PVT. LTD.	BIDADI
4034.	TPF SOFTWARE (I) PVT. LTD.	CHENNAI
4035.	TPVISION (I) PVT. LTD.	BANGALORE
4036.	TRACTORS AND FARM EQUIPMENT LTD.	BANGALORE
4037.	TRACTORS AND FARM EQUIPMENT LTD.	CHENNAI
4038.	TRACTORS AND FARM EQUIPMENT LTD.	VISAKHAPATNAM



S.NO.	NAME	LOCATION
4039.	TRANQUILIT SOFTWARE PVT. LTD.	COIMBATORE
4040.	TRANS GULF ELECTRO-MECHANICAL LLC	DUBAI
4041.	TRAVELREPUBLIC	TIRUPPUR
4042.	TRAWEX TECHNOLOGIES	BANGALORE
4043.	TREENI SOFTWARE SOLUTION PVT. LTD.	PUNE
4044.	TREO TECHNOLOGIES	AMBALA CANTT
4045.	TRISPECTRUM	CHENNAI
4046.	TRIDENT INFOSOL PVT. LTD.	BANGALORE
4047.	TRIMBLE INFORMATION TECHNOLOGIES	CHENNAI
4048.	TRIPTA INNOVATIONS PVT. LTD.	SURAT
4049.	TRIQUESTA PTE LTD.	BANGALORE
4050.	TRIVENI ENGINEERING & INDUSTRIES LTD.	MEERUT
4051.	TRIVENI TURBINE LTD.	BANGALORE
4052.	TRUSTED AEROSPACE ENGINEERING PVT. LTD.	COIMBATORE
4053.	TS TECH SUN (I) PVT. LTD.	DELHI
4054.	TSI FZE	DUBAI
4055.	TŠV RHEINLAND (I) PVT. LTD.	BANGALORE
4056.	TUBE INVESTMENTS OF (I) LTD.	PUNE
4057.	TURBOTECH PRECISION ENGINEERING PVT. LTD.	BANGALORE
4058.	TURNTRO MECHANICAL WORKS	DELHI
4059.	TUSCANO EQUIPMENTS PVT. LTD.	KARUR
4060.	TUSHACO PUMPS PVT.LTD.	DAMAN
4061.	TUV RHEINLAND (I) PVT. LTD.	AHMEDABAD
4062.	TUV SUD SOUTH ASIA PVT. LTD.	FARIDABAD
4063.	TUV SUD SOUTH ASIA PVT. LTD.	NOIDA
4064.	TVM SIGNALLING & TRANSPORTATION SYSTEMS	BANGALORE
4065.	TVS ELECTRONICS LTD.	CHENNAI
4066.	TVS MOTOR CO. LTD.	BANGALORE
4067.	TVS MOTOR CO. LTD.	CHENNAI
4068.	TVS MOTOR CO. LTD.	HOSUR
4069.	TVS MOTOR CO. LTD.	MYSORE
4070.	TVS MOTOR CO. LTD.	VISAKHAPATNAM
4071.	TVS SUNDRAM FASTENERS LTD.	CHENNAI
4072.	TVS SUNDRAM FASTENERS LTD.	COIMBATORE
4073.	TVS SUNDRAM FASTENERS LTD.	ERODE
4074.	TVS SUNDRAM FASTENERS LTD.	HOSUR
4075.	TVS SUNDRAM FASTENERS LTD.	KRISHNAGIRI
4076.	TVS SUNDRAM FASTENERS LTD.	TIRUNELVELI
4077.	TVS UPASANA LTD.	KRISHNAGIRI
4078.	TYCO FIRE & SECURITY PVT. LTD.	BANGALORE
4079.	TYCO FIRE & SECURITY UAE LLC	ABU DHABI
4080.	TYCO FIRE AND SECURITY (I) PVT. LTD.	JAMSHEDPUR
4081.	TYFONE CDI PVT. LTD.	BANGALORE
4082.	U T C FIRE & SECURITY (I) LTD.	NAVI MUMBAI
4083.	UBIQUE SYSTEMS PVT. LTD.	KOLKATA
4084.	UBITECH PVT. LTD.	CHENNAI
4085.	UEI ELECTRONICS PVT. LTD.	BANGALORE
4086.	UEM (I) PVT. LTD.	MANGALORE
4087.	UFI FILTERS (I) PVT. LTD.	REWARI
4088.	UGAM SOLUTIONS	BANGALORE
4089.	ULTRATECH CEMENT LTD.	ANANTAPUR
4090.	ULTRATECH CEMENT LTD.	BALODABAZAR
4091.	ULTRATECH CEMENT LTD.	CHENNAI
4092.	ULTRATECH CEMENT LTD.	CHITTORGARH
4093.	ULTRATECH CEMENT LTD.	KATNI
4094.	ULTRATECH CEMENT LTD.	MUMBAI
4095.	UMAS PVT.LTD.	PUNE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
4096.	UNBOX TECHNOLOGIES PVT. LTD.	BANGALORE
4097.	UNIBIZ SOFTWARE SOLUTIONS	BANGALORE
4098.	UNICHARM (I) PVT. LTD.	AMBALA CANTT
4099.	UNICHARM (I) PVT. LTD.	ROPAR
4100.	UNIFY TECHNOLOGY	HYDERABAD
4101.	UNIGEN (I) PVT. LTD.	HYDERABAD
4102.	UNIKEN (I) PVT. LTD.	PUNE
4103.	UNIPRES (I) PVT. LTD.	CHEYGAR
4104.	UNISYS GLOBAL SERVICES (I) LTD.	BANGALORE
4105.	UNITECH MACHINES LTD.	NEW DELHI
4106.	UNITED BREWERIES LTD.	BANGALORE
4107.	UNITED BREWERIES LTD.	MANGALORE
4108.	UNITED DEVELOPMENT CO.	KOTTAYAM
4109.	UNITED HEALTH GROUP PVT. LTD.	BANGALORE
4110.	UNITED HEALTH GROUP PVT. LTD.	GHAZIABAD
4111.	UNITED HEALTH GROUP PVT. LTD.	HYDERABAD
4112.	UNITED HEALTH GROUP PVT. LTD.	NEW DELHI
4113.	UNITED HEALTH GROUP PVT. LTD.	NOIDA
4114.	UNITED HEALTH GROUP PVT. LTD.	PALAKONDA
4115.	UNITED METAL COATING L.L.C.	PUNE
4116.	UNITED PRECISION ENGINEERING CO.	YAMUNA NAGAR
4117.	UNITED TECHNO INFO SYSTEMS	CHENNAI
4118.	UNITED TECHNOLOGIES	BANGALORE
4119.	UNITEDHEALTH GROUP	GURGAON
4120.	UNITEDHEALTH GROUP	HYDERABAD
4121.	UNITY INFOTECH SOLUTIONS L.L.C	DUBAI
4122.	UNIVERSITY YADUNDE 1	CAMEROON
4123.	UNIVERSITY YADUNDE 1	KIGALI
4124.	UNIVERSITY YADUNDE 1	LIBREVILLE
4125.	UNIVERSITY YADUNDE 1	MAPUTO
4126.	UNIVERSITY YADUNDE 1	YAOUNDE
4127.	UPGRAD LTD.	MUMBAI
4128.	UPL LTD.	MUMBAI
4129.	US TECHNOLOGY INTERNATIONAL PVT. LTD.	BANGALORE
4130.	US TECHNOLOGY INTERNATIONAL PVT. LTD.	CHENNAI
4131.	US TECHNOLOGY INTERNATIONAL PVT. LTD.	VELLORE
4132.	USHA INTERNATIONAL LTD.	FARIDABAD
4133.	USHODAYA ENTERPRISES PVT. LTD.	VIJAYAWADA
4134.	UST GLOBAL	BAIDYABATI
4135.	UST GLOBAL	BANGALORE
4136.	UST GLOBAL	COIMBATORE
4137.	UST GLOBAL	PALAKKAD
4138.	UST GLOBAL	PUDUCHERRY
4139.	UST GLOBAL	TRIVANDRUM
4140.	UTC AEROSPACE SYSTEMS PVT. LTD.	BANGALORE
4141.	UTC AEROSPACE SYSTEMS PVT. LTD.	CHICKMANGALORE
4142.	UTC AEROSPACE SYSTEMS PVT. LTD.	COIMBATORE
4143.	UTC AEROSPACE SYSTEMS PVT. LTD.	HYDERABAD
4144.	UTC AEROSPACE SYSTEMS PVT. LTD.	PONDA
4145.	UTC AEROSPACE SYSTEMS PVT. LTD.	SHIMOGA
4146.	UTC FIRE & SECURITY (I) PVT. LTD.	HYDERABAD
4147.	UTKAL ALUMINA INTERNATIONAL LTD.	ROURKELA
4148.	UTTAM BIOTECH PVT. LTD.	MUMBAI
4149.	UTTAM VALUE STEELS LTD.	WARDHA
4150.	V GUARD INDUSTRIES LTD.	ERNAKULAM
4151.	V.C.S.G. MEDICAL COLLEGE & RESEARCH INST	SRINAGAR
4152.	V.M.SALGAOCAR HOSPITAL	GOA

S.NO.	NAME	LOCATION
4153.	V5 SEMICONDUCTORS	BANGALORE
4154.	VA TECH WABAG LTD.	CHENNAI
4155.	VAKRANGEE LTD.	MUMBAI
4156.	VALE OMAN PELLETIZING COMPANY LLC	OMAN
4157.	VALE OMAN PELLETIZING COMPANY LLC	SOHAR OMAN
4158.	VALEO INDIA PRIVATE LTD.	CHENNAI
4159.	VALEO INDIA PRIVATE LTD.	NAVALUR,CHENNAI
4160.	VALEO INDIA PRIVATE LTD.	PUNE
4161.	VALEO LIGHTING SYSTEMS	CHENNAI
4162.	VALEOMAN PELLETIZING COMPANY	SOHAR OMAN
4163.	VALMONT STRUCTURES	PUNE
4164.	VALUELABS SOLUTIONS LLP	HYDERABAD
4165.	VALUELABS SOLUTIONS LLP	SINGAPORE
4166.	VAM SOLAR POWER LLP	NOIDA
4167.	VANNA INFORMATION TECHNOLOGIES INDIA PVT	HYDERABAD
4168.	VARA UNITED PVT LTD	HYDERABAD
4169.	VARANG INFORMATION TECHNOLOGIES PVT. LTD.	HYDERABAD
4170.	VARROC POLYMERS PVT LTD.	PUNE
4171.	VASSAR LABS	HYDERABAD
4172.	VASUDHA PHARMA CHEM LTD.	HYDERABAD
4173.	VASUDHA PHARMA CHEM LTD.	VISAKHAPATNAM
4174.	VATECH WABAG LTD	CHENNAI
4175.	VATECH WABAG LTD	DELHI
4176.	VE COMMERCIAL VEHICLED LTD.	INDORE
4177.	VE COMMERCIAL VEHICLED LTD.	PITHAMPUR
4178.	VE COMMERCIAL VEHICLED LTD.	SALEM
4179.	VEC OIL & GAS CONSULTANTS	MUSCAT, OMAN
4180.	VEDANTA LTD.	BHATAPARA
4181.	VEDANTA LTD.	CHITRADURGA
4182.	VEDANTA LTD.	CHITTORGARH
4183.	VEDANTA LTD.	GAUTAM BUDDHA NAGAR
4184.	VEDANTA LTD.	GOA
4185.	VEDANTA LTD.	GULBARGARH
4186.	VEDANTA LTD.	JHARSUGUDA
4187.	VEDANTA LTD.	JHARSUGUDA (ODISHA)
4188.	VEDANTA LTD.	KHARACH
4189.	VEDANTA LTD.	KOTPUTLI
4190.	VEDANTA LTD.	RAIPUR
4191.	VEDANTA LTD.	SILVASSA
4192.	VEDANTA LTD.	TAMIL NADU
4193.	VEDANTA LTD.	THOOTHUKUDI
4194.	VEDANTA LTD.	TUTICORIN
4195.	VELOCIS SYSTEM PVT. LTD,NOIDA	NOIDA
4196.	VELOSI CERTIFICATION LLC	QATAR
4197.	VELVETBUD TECHNOLOGIES PVT LTD	HYDERABAD
4198.	VENKATESH HR SOLUTIONS	PUNE
4199.	VERIFONE INDIA TECHNOLOGY PVT LTD	BANGALORE
4200.	VERINT SYSTEMS INDIA PVT. LTD.	BANGALORE
4201.	VERITAS STORAGE (SINGAPORE) PTE LTD	SINGAPORE
4202.	VERITAS TECHNOLOGIES	PUNE
4203.	VERIZON	CHENNAI
4204.	VERIZON	HYDERABAD
4205.	VERIZON DATA SERVICES INDIA PVT LTD	BANGALORE
4206.	VERIZON DATA SERVICES INDIA PVT LTD	CHENNAI
4207.	VERIZON DATA SERVICES INDIA PVT LTD	HYDERABAD
4208.	VERIZON DATA SERVICES INDIA PVT LTD	PUNE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
4209.	VERNALIS SYSTEMS	CHENNAI
4210.	VERTEXONE PROCESS SOLUTION PVT. LTD.	GURGAON
4211.	VERTEXONE PROCESS SOLUTIONS PVT. LTD.	GURGAON
4212.	VERTIV ENERGY INDIA PRIVATE LTD.	THANE (MAHARASHTRA)
4213.	VESTAS CHENNAI	CHENNAI
4214.	VG SPL	BANGALORE
4215.	VGUARD INDUSTRIES LTD	COCHIN
4216.	VIASAT INDIA PVT LTD.	CHENNAI
4217.	VIBRACOUSTIC NOIDA PRIVATE LTD.	NOIDA
4218.	VIDAL HEALTH SYSTEMS	CHENNAI
4219.	VIHAAN NETWORKS LTD.	GURGAON
4220.	VIHAS HOSPITAL	TRICHY
4221.	VIJAY INDUSTRIES	CHENNAI
4222.	VIJAYA HOSPITALS	SALEM
4223.	VIKAS INDUSTRIES	MUMBAI
4224.	VINAYAKA COMPUTERS	BANGALORE
4225.	VIRTUAL SIMUTECH PVT LTD	PUNE
4226.	VIRTUOSOS SOLUTIONS PVT. LTD	GURGAON
4227.	VIRTUSA INDIA PVT LTD	BANGALORE
4228.	VIRTUSA INDIA PVT LTD	HYDERABAD
4229.	VIRTUSA POLARIS	CHENNAI
4230.	VISA	BANGALORE
4231.	VISA CONSOLIDATED SUPPORT SERVICES	BANGALORE
4232.	VISA CONSOLIDATED SUPPORT SERVICES (INDIA) PRIVATE	BANGALORE
4233.	VISA INC	BANGALORE
4234.	VISA INC	CHENNAI
4235.	VISA INC	PUNE
4236.	VISA INC	VISAKHAPATNAM
4237.	VISA WORLD WIDE PTE LTD	SINGAPORE
4238.	VISHAL HOSPITAL	JAGADHRI
4239.	VISHAY PRECISION TRANSDUCERS INDIA PVT. LTD.	CHENNAI
4240.	VISION TECHNOLOGY	DELHI
4241.	VISTA AUTOMATION	DUBAI
4242.	VISTEON ELECTRONICS INDIA PRIVATE LIMITE	CHENNAI
4243.	VISTEON TECHNICAL & SERVICES CENTRE PVT. LTD.	PUNE
4244.	VISUAL IQ TECHNO SERVICES INDIA PVT LTD	COCHIN
4245.	VITALHEALTH SOFTWARE PVT. LTD.	MUMBAI
4246.	VITECH SYSTEMS ASIA PRIVATE LTD.	HYDERABAD
4247.	VIVEN INNOVATIVE TECHNOLOGIES	HYDERABAD
4248.	VIVOTEX INDIA PVT LTD	HYDERABAD
4249.	VIZAG STEEL,RINL	VISAKHAPATNAM
4250.	VK:E ENVIRONMENTAL	PUNE
4251.	VMC SYSTEMS LTD.	HYDERABAD
4252.	VMSH	ODISHA
4253.	VMWARE SOFTWARE INDIA PRIVATE LTD.	BANGALORE
4254.	VMWARE SOFTWARE INDIA PRIVATE LTD.	CHENNAI
4255.	VMWARE SOFTWARE INDIA PRIVATE LTD.	PUNE
4256.	VODAFONE IDEA LTD	BANGALORE
4257.	VODAFONE INDIA SERVICES PRIVATE LTD.	PUNE
4258.	VOEREIR INDIA PVT LTD	GURGAON
4259.	VOITH PAPER TECHNOLOGY (INDIA) PRIVATE L	KOLKATA
4260.	VOITH PAPER TECHNOLOGY (INDIA) PVT. LTD.	KOLKATA
4261.	VOLANSYS TECHNOLOGIES	AHMEDABAD
4262.	VOLKSWAGEN INDIA PVT. LTD.	PUNE
4263.	VOLTAS QATAR WLL	DUBAI
4264.	VOLVO INDIA PVT LTD	BANGALORE
4265.	VORTEX ENGINEERING PVT LTD	CHENNAI

S.NO.	NAME	LOCATION
4266.	VOYAGE MARINE AUTOMATION	DUBAI
4267.	VTL ELECTRONICS LTD.	KOLKATA
4268.	VURAM TECHNOLOGIES	BANGALORE
4269.	VYOMINI TECH PRIVATE LTD.	NOIDA
4270.	WABCO INDIA LTD.	CHENNAI
4271.	WADHWANI FOUNDATION	BANGALORE
4272.	WALLMAX INDIA	FARIDABAD
4273.	WALMAN	FARIDABAD
4274.	WALMART GLOBAL TECHNOLOGY SERVICES INDIA	BANGALORE
4275.	WALMART LABS	BANGALORE
4276.	WALTER TOOLS INDIA P LTD	PUNE
4277.	WANBURY LTD.	MUMBAI
4278.	WANCLOUDS	BANGALORE
4279.	WAPCOS LTD.	HISAR
4280.	WARTSILA LLC	DUBAI
4281.	WATCHDATA TECHNOLOGIES (INDIA) PVT. LTD	BANGALORE
4282.	WEATHERFORD INTERNATIONAL	IRAQ
4283.	WEB ACCESS (INDIA) PVT. LTD.	MUMBAI
4284.	WEBSITE SKETCHERS PVT LTD	NEW DELHI
4285.	WEIR ENSCI	BANGALORE
4286.	WEIR OIL & GAS	DUBAI
4287.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	BANGALORE
4288.	WELLS FARGO INDIA SOLUTIONS PVT. LTD.	HYDERABAD
4289.	WELMADE LOCKING SYSTEMS PVT. LTD	PUNE
4290.	WELUE STRATEGIC ALLIANCES PRIVATE LTD.	GURGAON
4291.	WENDT INDIA	BANGALORE
4292.	WENDT INDIA	HOSUR, TAMILNADU
4293.	WENDT INDIA LTD.	HOSUR, TAMILNADU
4294.	WEP SOLUTIONS LTD.	BANGALORE
4295.	WEST BENGAL ELECTRONICS INDUSTRY DEVELOPMENT CORP	KOLKATA
4296.	WEST UNIFIED COMMUNICATION	BANGALORE
4297.	WESTERN DIGITAL	BANGALORE
4298.	WESTERN DIGITAL CORPORATION	BANGALORE
4299.	WESTERN DIGITAL, DESIGN CENTRE INDIA	BANGALORE
4300.	WHEELS INDIA LTD.	CHENNAI
4301.	WHIRLPOOL	GURGAON
4302.	WHIRLPOOL ASIA LLP,GTEC	PUNE
4303.	WHIRLPOOL INDIA LTD.	PUNE
4304.	WHIRLPOOL OF ASIA L.L.P.	PUNE
4305.	WHIRLPOOL OF INDIA	PUNE
4306.	WHIRLPOOL OF INDIA PVT LTD	PONDICHERRY
4307.	WHIRLPOOL OF INDIA PVT LTD	PUNE
4308.	WHITECROSS CLINIC HEALTH INITATIVE PVT. LTD.	BANGALORE
4309.	WHIZCHIP DESIGN TECHNOLOGIES	HYDERABAD
4310.	WHIZCHIP DESIGN TECHNOLOGIES PVT. LTD.	BANGALORE
4311.	WIKA INSTRUMENTS INDIA PVT LTD	PUNE
4312.	WINCOR NIXDORF PTE. LTD.	SINGAPORE
4313.	WINDLASS ENGINEERS & SERVICES	DEHRADUN
4314.	WIPRO GE HEALTHCARE	BANGALORE
4315.	WIPRO INFOTECH	BANGALORE
4316.	WIPRO INFOTECH	MUMBAI
4317.	WIPRO INFOTECH	MYSORE
4318.	WIPRO INFOTECH	PUNE
4319.	WIPRO INFRASTRUCTURE ENGINEERING	BANGALORE
4320.	WIPRO LTD.	BANGALORE
4321.	WIPRO LTD.	BARCLAYS
4322.	WIPRO LTD.	CHENNAI

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
4323.	WIPRO LTD.	COIMBATORE
4324.	WIPRO LTD.	DELHI
4325.	WIPRO LTD.	GURGAON
4326.	WIPRO LTD.	HYDERABAD
4327.	WIPRO LTD.	JAIPUR
4328.	WIPRO LTD.	KOCHI
4329.	WIPRO LTD.	KOLKATA
4330.	WIPRO LTD.	MUMBAI
4331.	WIPRO LTD.	MYSORE
4332.	WIPRO LTD.	NOIDA
4333.	WIPRO LTD.	PUNE
4334.	WIPRO LTD.	TAMIL NADU
4335.	WIPRO LTD.	UAE
4336.	WIPRO WASE	BANGALORE
4337.	WIPRO WASE	CHENNAI
4338.	WIPRO WIMS	BANGALORE
4339.	WIPRO WIMS	CHENNAI
4340.	WIPRO WIMS	COIMBATORE
4341.	WIPRO WIMS	HYDERABAD
4342.	WIPRO WIMS	MUMBAI
4343.	WIPRO WIMS	PUNE
4344.	WIRINTCO TECHNOLOGIES PVT LTD	BANGALORE
4345.	WIRTGEN INDIA PRIVATE LTD.	PUNE
4346.	WISSEN BAUM ENGINEERING SOLUTIONS LLP	PUNE
4347.	WITZENMANN INDIA PVT LTD	KOLKATA
4348.	WME CONSULTANTS	DUBAI
4349.	WOCKHARDT LTD.	MUMBAI
4350.	WOCKHARDT LTD.	VAPI
4351.	WOCKHARDT LTD	MUMBAI
4352.	WOOD PLC	GURGAON
4353.	WOODGROUP PSN	DUBAI
4354.	WORLD BANK GROUP	CHENNAI
4355.	WORLD HEALTH ORGANIZATION	NEW DELHI
4356.	WORLD METALS & ALLOYS (FZC)	CHENNAI
4357.	WORLD PLANNER S CONSULTING ENGINEERS	ABU DHABI
4358.	WORLDLINE INDIA PVT LTD	PUNE
4359.	WORLEYPARSON ENGINEERING PVT LTD	ABU DHABI
4360.	WORLEYPARSON ENGINEERING PVT LTD	DOHA
4361.	WORLEYPARSON ENGINEERING PVT LTD	MUMBAI
4362.	WORLEYPARSON ENGINEERING PVT LTD	MUSCAT, OMAN
4363.	WORLEYPARSON ENGINEERING PVT LTD	SAUDI ARABIA
4364.	WRD	RAIPUR
4365.	WS ATKINS AND PARTNERS OVERSEAS	SHARJAH
4366.	WS ATKINS(IND) PVT. LTD.	BANGALORE
4367.	WSP   PARSONS BRINCKERHOFF	DUBAI
4368.	WSP CONSULTANTS INDIA PVT. LTD	NOIDA
4369.	WSP MIDDLE EAST	UAE
4370.	XAVIENT DIGITAL PVT LTD	NOIDA
4371.	XAVIENT INFORMATION SYSTEM	GURGAON
4372.	XAVIENT INFORMATION SYSTEM	NOIDA
4373.	XCHANGING SOLUTIONS LTD.	BANGALORE
4374.	XEBIA IT ARCHITECTS INDIA PRIVATE LTD.	GURGAON
4375.	XEROX TECHNOLOGIES SERVICES INDIA LLP	KOCHI
4376.	XILINX INDIA TECHNOLOGIES PVT LTD	HYDERABAD
4377.	XITADEL CAE TECHNOLOGIES INDIA PRIVATE LTD.	BANGALORE
4378.	XITADEL CAE TECHNOLOGIES INDIA PRIVATE LTD.	CHENNAI
4379.	XL SOLUTIONS LLC	BANGALORE

<b>S.NO.</b>	<b>NAME</b>	<b>LOCATION</b>
4380.	XYLEM WATER SOLUTION PVT LTD	VADODARA
4381.	XYTEL INDIA PVT LTD	PUNE
4382.	YAHOO SDC	BANGALORE
4383.	YAMAZAKI MAZAK INDIA PRIVATE LTD.	BANGALORE
4384.	YAMAZAKI MAZAK INDIA PRIVATE LTD.	CHENNAI
4385.	YAMUNA MACHINE WORKS LTD.	SURAT
4386.	YANFENG INDIA AUTOMOTIVE INTERIOR SYSTEM	PUNE
4387.	YARDI SOFTWARE INDIA PVT LTD	PUNE
4388.	YATRA.COM	GURGAON
4389.	YAZAKI INDIA PVT LTD.	PUNE
4390.	YODLEE INFOTECH PVT. LTD.	BANGALORE
4391.	YOGRAJ MULTITECH ENGINEERING PVT.LTD	PUNE
4392.	YOKOGAWA INDIA LTD	BANGALORE
4393.	YSCART	BANGALORE
4394.	YUKEN INDIA LTD.	BANGALORE
4395.	YULU BIKES	BANGALORE
4396.	ZAID AL HUSSAIN LLC	DUBAI
4397.	ZAMIL PLASTICS LTD	DAMMAM
4398.	ZAMIL STEEL	DUBAI
4399.	ZAMIL STEEL	UAE
4400.	ZCON SOLUTIONS PVT LTD	PUNE
4401.	ZEAL ENCORE TECHNOLOGIES	BANGALORE
4402.	ZEN TECHNOLOGIES LTD	HYDERABAD
4403.	ZENCORP PTE LTD	SINGAPORE
4404.	ZENQ	HYDERABAD
4405.	ZENSER TECHNOLOGIES	HYDERABAD
4406.	ZENSER TECHNOLOGIES	MUMBAI
4407.	ZEOMEGA INFOTECH PVT LTD	BANGALORE
4408.	ZERO GALAXY TECHNOLOGIES PVT LTD	NOIDA
4409.	ZEUS BIOTECH PRIVATE.LTD MYSORE	MYSORE
4410.	ZF ELECTRONICS TVS INDIA PRIVATE LTD.,	MADURAI
4411.	ZF HERO CHASSIS SYSTEMS PVT LTD	CHENNAI
4412.	ZF WIND POWER COIMBATORE LTD	COIMBATORE
4413.	ZH HEALTHCARE INC	KOCHI
4414.	ZILOGIC SYSTEMS	CHENNAI
4415.	ZINKA LOGISTICS SOLUTIONS PRIVATE LTD.	BANGALORE
4416.	ZOHO CORPORATION PVT. LTD.	CHENNAI
4417.	ZOOL TECH SOLUTIONS PVT. LTD.	BANGALORE
4418.	ZS ASSOCIATES	GURGAON
4419.	ZTT INDIA PVT LTD	ANDHRA PRADESH
4420.	ZUARI INFRAWORLD INDIA LTD.	GOA
4421.	ZYME SOLUTIONS PVT LTD	BANGALORE

**LIST OF PROJECT WORK SUBMITTED BY STUDENTS UNDER THE WORK INTEGRATED LEARNING PROGRAMMES IN THE YEAR 2018**

<b>S.No.</b>	<b>Project Work Title</b>
<b>B.Tech. Engineering Technology</b>	
1.	ADDITIONAL ETHANE SPHERE
2.	ADVANCED PROCESS CONTROL
3.	AIR FILTRATION SYSTEM
4.	ALARM MANAGEMENT SYSTEM
5.	AMBULANCE ALERT SYSTEM
6.	ANALYSIS OF BEAM FABRICATION
7.	ANALYSIS OF DELAY IN COMPLETION OF SAMAKHIYALI GANDHIDHAM ROAD PROJECT
8.	ANALYSIS OF SUPPLY CHAIN MANAGEMENT SYSTEM AND FEASIBILITY STUDY ON IMPLEMENTATION OF JUST IN TIME (JIT) APPROACH ON PROJECT BASED ORGANISATION.
9.	ANALYSIS OF VERTEX TUBE TO IMPROVE ENERGY SEPARATION EFFICIENCY AND EFFECTS OF PARAMETERS
10.	ASSEMBLY ZIG FOR THE SUB ASSEMBLY OF THE AIRCRAFT
11.	AUTHORING EFFICIENCY IMPROVEMENT THROUGH ADOPTION OF "ROBOTIC PROCESS AUTOMATION TECHNOLOGY"
12.	AUTOMATED COMPONENTS CLEANING UNIT
13.	AUTOMATED LUBRICATION SYSTEM
14.	AUTOMATIC FIRE PROTECTION SYSTEMS & THEIR DEVELOPMENTS
15.	AUTOMATION OF EXISTING SCRUBBER FOR MAXIMUM ABSORPTION
16.	AUTOMATION OF HEXDUMP EXTRACTION PROCESS
17.	AUTOMATION WITH DATA TRACEABILITY FOR MANUFACTURING PROCESS
18.	AVAILABILITY IMPROVEMENT IN SHEET CUTTER MACHINE
19.	BATTERY PERFORMANCE OPTIMIZATION FOR ELECTRIC VEHICLES
20.	BMS INSTRUMENTS USED IN HVAC SYSTEMS TO OPTIMIZE ENERGY SAVINGS AND OPERATIONAL COMFORT AT COMMERCIAL BUILDINGS
21.	CABLE MANAGEMENT FOR DYNAMIC ANALYSIS
22.	CALCULATION ANALYSIS OF ENGINE FOUNDATION
23.	CHALLENGES AND TROUBLESHOOTING IN OIL AND GAS SOUR WATER UNIT
24.	COMMISSIONING OF TRANSFORMERS IN SUBSTATION
25.	CONDENSATE WASTE WATER REUSE IN AUTOMOBILES
26.	CONSERVING FOSSIL FUEL USING ALTERNATIVE FUEL IN AFBC BOILER
27.	CONSTRUCTION OF 400 KV SWITCH YARD
28.	CONTROL OF INSPECTION AND MEASUREMENT
29.	COOLANT LEAKAGE FROM JW EXPANSION TANK PRV, EXCESSIVE COOLANT CONSUMPTION.
30.	COST OPTIMIZATION AND LEAD TIME REDUCTION OF BULK COMMODITY IN CONSTRUCTION PROCUREMENT
31.	COST REDUCTION IMPROVEMENT PROJECT FOR QATALUM SEAWATER SYSTEM
32.	CRUDE DISTILLATION TOWER PRESSURE OPTIMIZATION
33.	DCS CONTROL MIGRATION
34.	DEDICATED FREIGHT CORRIDOR PROJECT
35.	DESIGN AND ANALYSIS OF BRAKE BACK PLATE
36.	DESIGN AND ANALYSIS OF MEDICAL DEVICE HANDLE



S.No.	Project Work Title
37.	DESIGN AND DEVELOPMENT OF WELD OVERLAY FLANGES
38.	DESIGN AND IMPLEMENTATION OF ENERGY CONSERVATION MEASURES FOR THE TECHNICAL CENTER ASIA PACIFIC BUILDING
39.	DESIGN CRITERION FOR BRACKET AND ATTACHMENT FOR CHASSIS MOUNTED AC COMPRESSOR FOR COMMERCIAL VEHICLE
40.	DESIGN OF AIR RECEIVER VESSEL
41.	DESIGN OF ENERGY EFFICIENT MECHANICAL SYSTEM IN UTILITY BUILDING
42.	DESIGN OF INTEGRATED LINEAR ELECTRO-MECHANICAL ACTUATOR
43.	DESIGN OF MICROCONTROLLER AND I2C BASED MANUAL CONTROL UNIT(MCP)
44.	DESIGN OF MULTIPLICATION AND ACCUMULATION UNIT IN AI ARCHITECTURE USING VERILOG HDL
45.	DESIGN OF RESIDENTIAL BUILDING
46.	DESIGN, SUPPLY AND FABRICATION OF COLD FORM HOLLOW SECTION IN PLACE FORM HOT FORM HOLLOW SECTION.
47.	DETECTION OF PARTIALLY LATCHED ROD AT THIMBLE STRIPPING FACILITY
48.	DEVELOPING TEST-JIG FOR CHECKING SUB-ASSEMBLIES OF UPS
49.	DEVELOPMENT OF ENGINE PISTON RINGS FOR SPLITTING AND HEAT TREATMENT OPERATION
50.	DEVELOPMENT OF TEST BENCH FOR HIGH TENSION MOTORS
51.	DIE DELIVERY LEAD TIME REDUCTION
52.	DIGITALIZATION IN TRANSMISSION LINE PROJECT MANAGEMENT AND CONTROL
53.	DISTRIBUTED TEMPERATURE SENSING (DTS) SYSTEM FOR 220 KV UG CABLES
54.	DISTRICT COOLING PLANT PROCESS AUTOMATION (PLC AND SCADA CONTROL)
55.	DRY SEAL GAS CONDITIONING SYSTEM INSTALLATION, COMMISSIONING AND INTEGRATION
56.	DRY SEAL GAS CONDITIONING SYSTEM INSTALLATION, COMMISSIONING AND INTEGRATION
57.	EFFECTIVE ARTIFICIAL LIFT SYSTEMS AND OPTIMIZATION IN OIL AND GAS
58.	EFFECTIVE PROCUREMENT AND PROJECT MONITORING & CONTROL TO ENSURE TIMELY REALISATION OF PROJECT
59.	EFFECTIVE PRODUCTIVITIES OF CRANES
60.	ELECTRICAL CONSUMPTION SAVING OF AIR COMPRESSOR BY PROPER UTILIZATION OF COMPRESSOR BY UNLOADING PERIOD
61.	ELECTRICAL DESIGN FOR BUILDING SERVICES
62.	ELECTRICAL/ELECTRONIC DIAGNOSTIC METHODOLOGY BENCH MARKING
63.	ELECTRO GAS WELDING PROCESS
64.	ELIMINATE CRACK ISSUE IN BMW ALUMINIUM HANGER BRACKET
65.	ELIMINATING MAJOR QUALITY DEFECT IN THE TYRE PRODUCTION CALLED RENC
66.	ELIMINATION OF AIR INTAKE PIPE CONNECTION INCOMPLETE
67.	ELIMINATION OF JACK ROD CLIP OUT OF PLACE
68.	ELIMINATION OF TUBE ASSLY (2.1GVW & 1TON MODEL) LEAKAGE ISSUE AT SIPL PANTNAGAR BY REDUCING THE REWORK/REJECTION AT SUPPLIER END
69.	ENERGY AND WATER SAVING BY IMPLEMENTING GEO-THERMAL COOLING SYSTEM
70.	ENERGY EFFICIENT SOLUTIONS IN HVAC SYSTEMS
71.	ENERGY MANAGEMENT - ENERGY EFFICIENT AIR CONDITIONING SYSTEM DESIGN
72.	ENERGY MANAGEMENT & COST OPTIMIZATION IN GAS TREATING UNIT
73.	ENERGY MANAGEMENT & FEED CAPACITY MAXIMIZATION
74.	ENERGY MANAGEMENT IN IRRIGATION PUMPS
75.	ENHANCEMENT OF HEAT TRANSFER IN THE COOLING SYSTEM
76.	ENSURE CUSTOMER DELIGHT-ANALYSIS AND IMPROVEMENT MANAGEMENT PROCESS
77.	ENTERPRISE RESOURCES PLANNING
78.	ETHYLENE CRACKER FURNACE BURNER MODIFICATIONS

<b>S.No.</b>	<b>Project Work Title</b>
79.	EVALUATING THE IMPORTANCE OF COMMUNICATION.....PROJECT ACTIVITIES
80.	EXCELLENCY IN OPERATION & MAINTENANCE OF WATER TREATMENT AND MANAGEMENT SYSTEM
81.	EXCESS AND OBSOLETE (E&O) INVENTORY REDUCTION
82.	EXPERIMENTAL ANALYSIS ON SOLAR WATER PUMPING SYSTEM WITH EFFICIENT MOTOR CONTROL
83.	EXPERIMENTAL STUDY OF PARTIAL REPLACEMENT OF FINE AGGREGATE BY USING M-SAND IN CONCRETE MANUFACTURE
84.	EXPERIMENTAL STUDY ON REQUIREMENT OF REDUNDANT DRIVE UNIT FOR ROTARY VALVE MOTOR
85.	EXTENDED SERVICE INTERVAL
86.	FABRICATION AND ERECTION ACTIVITIES FOR STRUCTURAL STEEL ITEMS FOR RAILWAY PROJECTS
87.	FABRICATION OF VERTICAL AXIS WIND TURBINE
88.	FACTORS CAUSE DELAYS IN CONSTRUCTION PROJECTS AN ANALYSIS BASED ON TWO CASE STUDIES
89.	FAILURE ANALYSIS AND RELIABILITY IMPROVEMENT FOR RELAY LOGIC EMERGENCY SHUTDOWN SYSTEM
90.	FAULT DETECTION IN THE EHV POWER CABLE SYSTEM
91.	FOUNDATION FIELD BUS IN PROCESS CONTROL
92.	HYDRO POWERED VALVES
93.	IDENTIFYING & CLASSIFYING DEFECTS IN THE TYRE WITH RESPECT TO THE COST
94.	IMPLEMENTATION OF LEAN MANUFACTURING IN CURING SHOP FOR SCRAP REDUCTION
95.	IMPLEMENTATION OF SPECIAL PROTECTION SCHEMES AND CONTROLS OVER CONVENTIONAL PROTECTION FUNCTIONS IN ELECTRICAL SYSTEMS BY UTILIZING ADVANCE PROTECTIVE RELAYS
96.	IMPORTANCE OF SOCIAL IMPACT ASSESSMENT IN INFRASTRUCTURE PROJECTS
97.	IMPROVE AUTHORIZING QUALITY OF PARTS MANUAL
98.	IMPROVE ITR (INVENTORY TURN OVER RATIO)-INVENTORY MANAGEMENT
99.	IMPROVE PRODUCTIVITY IN POWDER COATING PLANT BY REDUCE POWDER CHANGE OVER TIME IN PCB BOOTH
100.	IMPROVE PRODUCTIVITY THROUGH TOC
101.	IMPROVED MAN AND MACHINE SAFETY AND MACHINE PERFORMANCE
102.	IMPROVEMENT FOR REDUCTION IN CYCLE TIME OF RADIOGRAPHIC TESTING OF WELDS IN PRESSURE VESSELS AND HEAT EXCHANGER
103.	IMPROVEMENT IN DIE RELIABILITY
104.	IMPROVEMENT IN OIL LEAKAGE FROM STRUCTURAL BOLTED JOINT OF TRANSMISSION
105.	IMPROVEMENT IN RELIABILITY OF COAL HANDLING EQUIPMENT BY ADOPTING TPM
106.	IMPROVEMENT OF RELIABLE OPERATION AND SAFETY INTERLOCK SYSTEMS IN GANTRY CRANE
107.	IMPROVEMENT ON POT TENDING MACHINE AVAILABILITY BY OPTIMIZING ACM CIRCUIT
108.	IMPROVING DURABILITY THROUGH DESIGN OPTIMIZATION OF ENGINE COOLING FAN MOTOR FOR NVH CHARACTERISTICS
109.	IMPROVING PRODUCTIVITY FROM 45% TO 65% IN AD&M BUSINESS UNIT
110.	IMPROVING ROAD SAFETY MEASURES
111.	IMPROVING THE DATA CENTER COOLING EFFICIENCY
112.	IMPROVING THE POWER AND STEAM GENERATION EFFICIENCY OF EXISTING PLANT BY MAXIMIZING THE UTILIZATION OF EXCESS STEAM
113.	INNOVATIVE TECHNIQUES FOR FIRE AND GAS SYSTEM IN OIL AND GAS FIELD
114.	INSTALLATION & OPERATION OF 120 CUM CONCRETE BATCHING PLANT
115.	INSTALLATION AND COMMISSIONING OF INLINE SKIN PAS MILL

S.No.	Project Work Title
116.	INTRODUCING COMPACT, EFFICIENT AND RUGGED UPS FOR SMART CITY PROJECT APPLICATIONS
117.	INTRODUCTION OF NEW CONCEPT UPS TO INDIAN MARKET
118.	INTRODUCTION OF TOOL AIDS FOR ASSEMBLING OF DETAIL PARTS
119.	INVESTMENT POWER AUTOLOADING SYSTEM
120.	IRREGULAR ROLE CHANGE-----MILL
121.	KITMARSHAL PLAIN AUTOMATIC IN JEWELRY MANUFACTURING FOR FULL KITTING THE CHILD COMPONENT
122.	LEAD TIME AND COST REDUCTION IN LASER MARKING
123.	LEAD TIME REDUCTION FOR DOST VEHICLE
124.	LEAN MANUFACTURING IMPLEMENTATION USING VALUE STREAM MAPPING
125.	LEAN VS. BATCH PRODUCTION SYSTEMS IN FLAT FOLD RESPIRATOR MANUFACTURING
126.	LIGHT COMMERCIAL VEHICLE WHEEL ALIGNMENT MACHINE
127.	LOCALIZATION OF MODULES FROM CHINA
128.	LOW COST LOW INVENTORY MANUFACTURING FOR NICHE PRODUCTS
129.	MAINTAINING PLANTS AND EQUIPMENT FOR SAFE CONSTRUCTION OF ELEVATED ROAD BETWEEN JIJIRA BAZAR AND BATANAGAR ON BBT ROAD, KOLKATA
130.	MAINTENANCE AND SAFETY FOR GENSET TO INCREASE THE UP-TIME
131.	MAKE IN INDIA BY IMPLEMENTING STRATEGIC SOURCING
132.	MANAGEMENT OF ENERGY
133.	MANAGEMENT OF PROCUREMENT AND CONSTRUCTION IN PIPELINE PROJECTS
134.	MANUFACTURING ENGINEERING PROCESS DEVELOPMENT FOR SHEET METAL COMPONENT
135.	MATERIAL FLOW OPTIMIZATION
136.	MOBILE DEVICE BASED, HUMAN MACHINE INTERFACE FOR ALUMINIUM REDUCTION PROCESS CONTROL SYSTEM
137.	MODULAR AND EFFICIENT DATA CENTER
138.	MODULARIZATION OF CONTINUOUS PRECIPITATION SYSTEM (CPS) IN IDENTICAL WASTE WATER PRODUCT LINE
139.	MONITORING AND ALERTING OF MULTIPLE MACHINES STATUS IN ONE PLACE TO THE OPERATOR
140.	NEW PRODUCT DEVELOPMENT: INTELLIGENT ELECTRIC SERVO PRESS
141.	NEW PRODUCT RELEASE OF S600D ONLINE UPS
142.	NOT MENTIONED IN THE REPORT (FAILURE ANALYSIS OF PUMP)
143.	OIL REFINERY PROCESS - A BRIEF OVERVIEW & IMPROVEMENT OF OVERALL PRODUCTIVITY FOR REFINERY
144.	OIL SPILLAGE AND DRY BAND CONTROL IN CONTINUOUS GALVANIZING LINE
145.	ONLINE CONSUMABLE MANAGEMENT SYSTEM IN AIRCRAFT ASSEMBLY
146.	OPERATION AND MAINTENANCE OF PIPE CONVEYING SYSTEM AT SAIL-IISCO STEEL PLANT
147.	OPTIMIZATION OF MATERIAL ACQUISITION COST IN M&M SUPPLY CHAIN
148.	OPTIMIZE PAINT SHOP PLANT OPERATING COST
149.	OPTIMUM ENERGY MANAGEMENT
150.	OVERALL LEAD TIME REDUCTION IN NEW PRODUCT DEVELOPMENT OF VARIOUS TYPES OF BEARING IN INDUSTRY
151.	PASSENGER CAR NOISE REDUCTION IMPROVEMENT
152.	PERFORMANCE IMPROVEMENT OF CO-EXTRUDER WITH THE HELP OF LEAN TECHNIQUES
153.	PIPING MATERIAL SELECTION IN ONSHORE/OFFSHORE AND MARINE INDUSTRIES
154.	PLANT PERFORMANCE PARAMETER PREDICTION BASED ON DIFFERENT COAL PROPERTIES
155.	POLYGON MACHINING TECHNOLOGY
156.	POWER GENERATION FROM NUCLEAR ENERGY WITH SAFETY AT NUCLEAR POWER PLANTS

S.No.	Project Work Title
157.	POWER OPTIMIZATION BY REPLACING SCR BASED UPS SYSTEM WITH ADVANCED TECHNOLOGY BASED UPS SYSTEM
158.	POWER QUALITY STUDY ON INDUSTRIAL UPS AND MITIGATE ITS EFFECTS
159.	POWER SOLUTION FOR METRO PROJECT
160.	PREPARATION AND CHARACTERIZATION OF PLA-PANI BLEND NANO-COMPOSITES FOR HIGH DIELECTRIC APPLICATIONS
161.	PREVENT LEAKAGES - AIR LEAKAGE, WATER LEAKAGE & OIL LEAKAGE DURING TESTING OF COMPRESSORS
162.	PREVENTION FROM COMBUSTIBLE DUST EXPLOSIONS
163.	PROCESS CAPABILITY STUDY OF SILICONE MATERIAL QUALIFICATION
164.	PROCESS CONTROL & MONITORING OF WORKSHOP PERFORMANCES USING TQM TOOLS & TECHNIQUES
165.	PROCESS IMPROVEMENT FOR DRAWING CREATION AND PARAMETER UPDATES
166.	PROCESS IMPROVEMENT-STATISTICAL PROCESS CONTROL
167.	PROCESS OPTIMIZATION IN MANUFACTURING ENGINEERING
168.	PROCESS OPTIMIZATION IN SHEET METAL STAMPING FOR TRACTOR FRONT GRILL PANEL
169.	PRODUCT DESIGN - CAST STEEL GATE VALVE
170.	PRODUCT DESIGN AND DEVELOPEMENT OF A SENSOR
171.	PRODUCT DESIGN OF A MECHATRONICS MODULE FOR NOTE/CURRENCY EXTRACTION IN AN ATM
172.	PRODUCT LIFE CYCLE MANAGEMENT ON LEAD ACID BATTERY
173.	PRODUCT LIFE CYCLE MANAGEMENT: SHELF LIFE EXTENSIONS OF AEROSPACE SEALANT
174.	PRODUCTION, PLANNING AND CONTROL FOR REBAR WORKS FOR MEGA COMPLEX PROJECTS
175.	PRODUCTIVITY IMPROVEMENT AND COST REDUCTION OF BATTERY CHILLER
176.	PRODUCTIVITY IMPROVEMENT FOR HYDRAULIC DOOR CLOSER
177.	PRODUCTIVITY IMPROVEMENT IN BMW K03/U69 COMPONENTS BY IMPLEMENTATION OF CELLULAR MANUFACTURING
178.	PRODUCTIVITY IMPROVEMENT IN INDUSTRIAL UPS LINE
179.	PRODUCTIVITY IMPROVEMENT OF MORITZ ASSEMBLY MACHINE
180.	PRODUCTIVITY IMPROVEMENT OF SOFA MANUFACTURING PLANT
181.	PROJECT MANAGEMENT
182.	PROJECT MANAGEMENT FOR AUTOMATED CAR WASHING UNIT AT BANGALORE
183.	PROJECT MANAGEMENT FOR ENGINEERING, MANUFACTURING, TESTING AND SUPPLY OF HORIZONTAL AND VERTICAL TURBINE PUMP FOR COOLING WATER SYSTEM
184.	PROJECT MANAGEMENT IN DESIGN PROJECT AT RNAIPL, CHENNAI-TAMILNADU
185.	PROJECT MANAGEMENT OF E&M WORKS FOR UNDERGROUND METRO STATION PROJECT AT BANGALORE
186.	PROJECT MANAGEMENT OF ELECTRICAL & INSTRUMENTATION WORKS FOR HOT STRIP MILL (HSM) PROJECT
187.	PROJECT MANAGEMENT OF ELECTRICAL AND INSTRUMENTATION WORKS FOR COAL AND COKE HANDLING PLANT (CCHP) PROJECT AT IISCO, IISCO STEEL PLANT-BURNPUR
188.	PROJECT MANAGEMENT OF ELECTRICAL AND INSTRUMENTATION WORKS FOR TWIN SLAB CASTER PROJECT AT TATA STEEL.
189.	PROJECT MANAGEMENT OF HYDROPOWER
190.	PROJECT MANAGEMENT PLAN FOR REMOTE AREA TRANSMISSION LINE PROJECT
191.	PROJECT MANAGEMENT: STUDY TO INCREASING PRODUCTIVITY BY MACHINE MODIFICATION
192.	PROJECT PLANNING AND MANAGEMENT OF RUPSHA BRIDGE PROJECT BANGLADESH
193.	PROJECT RETROSPECTIVE OF A RECENTLY COMPLETED ROAD PROJECT 4 LANNING OF SAMBALPUR ROURKELA, NH-10, 165KM
194.	PROJECT: IN-TRANSIT MATERIAL BREAKAGE REDUCTION

S.No.	Project Work Title
195.	REAL TIME WARNING SYSTEM
196.	REDUCE DATA LOADING TIME IN PRODUCTION MONITORING DASHBOARD
197.	REDUCE REJECTION IN MICRO CELLULAR URETHANE PROCESS
198.	REDUCE TOTAL LINE REJECTION IN DOWNSTREAM FROM 0.6 TO 0.3%
199.	REDUCE ZINK CONSUMPTION IN GALVANIZING PROCESS
200.	REDUCING MANUAL ERRORS AND TIME SAVINGS IN INSPECTION DATASHEET CREATION
201.	REDUCTION OF CORNER PANEL OF GAP & FLUSH IN DOST CABIN
202.	REDUCTION OF NOX IN CEMENT SECTOR
203.	REDUCTION OF PRESSURE TRANSMITTER FAILURE IN VIAL WASHING MACHINE
204.	REDUCTION REJECTION IN N289 APACHE SEAT ASSEMBLY
205.	REJECTION CONTROL OF SEAL FITTMENT
206.	RELIABILITY AND MAINTENANCE IN OIL AND GAS AT PROJECT STAGE
207.	RELIABILITY IMPROVEMENT OF XYLENE REBOILER PILOT BURNERS
208.	RENOVATION OF EXISTING TRANSMISSION LINE
209.	REPORT ON PROSPECTING AND EXPLORING NEW BUSINESS IN RENOVATION OF TRANSMISSION LINE
210.	RESEARCH ON NASA X-57 MAXWELL AIRCRAFT
211.	SCORING REDUCTION IN ECO-MET AND DEFENSE FENDER PANEL (STAMPING PROCESS)
212.	SE -I INDUCTION LOCALISATION PROJECT
213.	SETUP REDUCTION OF CNC GRINDING MACHINES
214.	SHOT BLASTING MACHINE FOR SAFE GUARD BY IMPLEMENTING INTERNET OF THINGS
215.	SIDE TRIMMER ----MILL
216.	SIGNIFICANCE OF PRE-OVER HEAT PROTECTION IN ELECTRICAL POWER STEERING SYSTEM
217.	SINGLE MINUTE EXCHANGE OF DIES (SMED)
218.	SMART DOOR LOCK
219.	STARTING OPTION FOR MARINE DIESEL ENGINE TO OPERATE IN COLD AMBIENT AND SEA WATER TEMPERATURE
220.	STEAM PRESSURE REDUCING AND RECOVERY FOR REUSE
221.	STUDY ENERGY CONSUMPTION OF HOSPITAL AND APPLICATION OF ENERGY MANAGEMENT PRINCIPLES FOR OPTIMIZATION
222.	STUDY OF ALTERNATIVE PACKING MATERIALS FOR FINISHED GOODS USING LEAN TECHNIQUES
223.	STUDY ON PERFORMANCE IMPROVEMENT IN MSF DISTILLER UNIT
224.	SUPPLY CHAIN MANAGEMENT
225.	SUPPLY CHAIN MANAGEMENT FOR UTILITIES SERVICES IN MEGA CONSTRUCTION PROJECT
226.	SUSTAINABLE ENERGY AND SCENARIO IN OMAN
227.	SYSTEM SOLUTIONS OF HVAC SYSTEM
228.	SYSTEMIC APPROACH FOR INTRODUCING AUTO RESTART FUNCTIONALITY IN CUMMINS CONTROLLER
229.	TECHNOLOGY SELECTION FOR HYDRO CARBON GAS DEW POINTING
230.	TEST JIG FOR RECTIFIER
231.	TO INCREASE RELIABILITY & DECREASE PRODUCTION LOSS BY MODIFYING LEVEL SWITCH IN FEED HOPPER
232.	TO OPTIMIZE SUPPLY CHAIN OF PCBA BY IMPLEMENTING STRATEGIC SOURCING
233.	TO PREPARE STRATEGIC ROAD MAP FOR 2025 MUBEA INDIA
234.	TO PREVENT CATASTROPHIC FAILURE USING PREVENTIVE & PREDICTIVE MAINTENANCE TECHNIQUES
235.	TO REDUCE CYCLE TIME OF ELBOW OVERLAY NOZZLE
236.	TO REDUCE THE CYCLE TIME TO CREATE TYPE2 CROSS SECTIONAL DRAWING FOR VALTEK

<b>S.No.</b>	<b>Project Work Title</b>
	PRODUCTS VL/VR ACTUATOR FOR SPRINGVILI BUSINESS UNIT
237.	TO REDUCE THE ELECTRICAL ENERGY CONSUMPTION IN CONVEYORS
238.	TO UNDERSTAND THE REQUIREMENT OF MAINTENANCE ENGINEERING FOR ANY ORGANIZATION AND DEVELOP THE SYSTEM AND PROCESSES ACROSS THE ORGANIZATION TO OPTIMIZE PLANT OPERATIONS IN EFFICIENT MANNER
239.	TOOLS ORDERING AND PAYMENT PROCESS IMPROVEMENT
240.	TSE WATER TREATMENT PROCESS AUTOMATION (PLC AND SCALA CONTROL)
241.	UPGRADATION OF POWER SYSTEM AT STERLITE
242.	UPGRADE THE ROLL MILL -1 FURNACE HYDRAULICALLY OPERATED EXIT PINCH ROLL UNIT TO ELECTROMECHANICALLY DRIVEN UNIT
243.	UPGRADING THE TECHNOLOGY OF AUTOMATIC TRAIN OPERATION
244.	VALUE CREATION THROUGH EFFECTIVE SUPPLY CHAIN MANAGEMENT FOR CONSTRUCTION INDUSTRY
245.	VALUE ENGINEERING ON GANGWAY CONNECTION OF INDIAN RAIL PASSENGERS COACHES
246.	VARIABLE FREQUENCY DRIVE CONTROL OF CONDENSER EXTRACTION PUMP OF COAL BASED POWER PLANTS AND THE EFFECT ON ENERGY EFFICIENCY
247.	VARIANT MANAGEMENT PROCESS IMPROVEMENT
248.	VIBRATION CONTROL OF STRUCTURES
249.	WASTE HEAT RECOVERY BASED POWER PLANT
250.	WATER TREATMENT PLANT USING PLC CONTROL SYSTEM
251.	ZERO DISCHARGE IN PLATING PROCESS
<b>B.S. Engineering Technology</b>	
252.	A STUDY ON THE RECRUITMENT PROCESS
253.	AIR CONDITIONING SYSTEM DESIGN AND CALCULATION
254.	ALTERNATIVE COMPONENT DEVELOPMENT OF WIND TURBINE GRID MONITORING UNIT
255.	BAGGING BATCH CONTROLLER
256.	BASIS FOR OPTIMIZATION OF LOGISTIC COST IN EPC PROJECTS
257.	DESIGN AND MANUFACTURING OF FIXTURES FOR BAND ASSEMBLY
258.	DESIGN OF ENGINE ENCLOSURE FOR SOIL COMPACTOR
259.	DESIGN OF SHIPS MAIN SWITCHBOARD (MSB)
260.	ENERGY SAVING STRATEGIES FOR COAL HANDLING PLANT
261.	ESTABLISHMENT OF LOW ROLLING RESISTANCE TIRE COMPOUND (FOR PASSENGER VEHICLE)
262.	IMPLEMENTATION OF TOC FUNDAMENTALS FOR PROJECT MANAGEMENT THROUGH AUTOMATION
263.	IMPLEMENTATION OF TPM CONCEPT IN MAINTENANCE FUNCTION AND SAFETY THROUGH MAINTENANCE ACTIVITIES
264.	INTELLIGENT BLOCK SYSTEM FOR INDIAN RAILWAYS
265.	LOCALIZATION OF ISLE/QSLE ENGINE PARTS WITHOUT AFFECTING PRODUCT QUALITY & DELIVERY
266.	MANUFACTURING ENGINEER
267.	MATERIAL SELECTION IN INDUCTION BENDING
268.	OPTIMIZATION OF FRAME FABRICATION USING LEAN MANUFACTURING TECHNIQUES
269.	PIEZOELECTRIC ENERGY HARVESTING
270.	RAILWAY SIGNALLING SYSTEMS & INTEGRATION
271.	SENIOR ASSISTANT ENGINEER
272.	SENSOR PACKAGING FOR OIL AND GAS HARADOUS AREA
273.	SHIP SHORE CONTAINER HANDLING GANTRY CRANE MODIFICATION PROJECT
274.	STANDARDISED HYDROCYCLONE VESSEL SKID FOR WATER TREATMENT IN PROCESS PLANTS
275.	STRESS ANALYSIS FOR MKV SKID PIPING

<b>S.No.</b>	<b>Project Work Title</b>
276.	STUDY OF RESOURCE PRODUCTIVITY OF HIGHWAY PROJECT
277.	THREE PHASE TEST SEPARATOR
278.	TO REDUCE LINE REJECTION USING SEVEN BASIC TOOLS OF QUALITY
279.	TO STUDY AND EVALUATE SITE STEAM MANAGEMENT PROCESS FOR IDENTIFYING THE ENERGY CONSERVATION MEASURES THAT CAN BE IMPLEMENTING WITH OUR COMPROMISING THE PRESENT PROCESS PARAMETERS AND PRODUCT QUALITY.
280.	VENTILATION SYSTEM FOR BATTERY ROOM
<b>B.Tech. Information Systems</b>	
281.	A STUDY ON NETWORK SECURITY ASPECTS, ATTACKING AND POSSIBLE SECURITY MECHANISMS
282.	ARCHITECTURE DEFINITION FOR DEBUG INTERFACE OVER USB TYPE-C
283.	ARDUINO BASED TEMPERATURE SENSING AND REPORTING SYSTEM
284.	ASSET MANAGEMENT DATABASE APPLICATION
285.	CAN BASED ACCIDENT AVOIDANCE SYSTEM
286.	CONTROLLING COMPUTER USING MOBILE
287.	COST MINIMIZATION FOR DATA CENTER MANAGEMENT
288.	DISEASE PREDICTION DATA USING BIG DATA
289.	FACIAL RECOGNITION BASED HOME SECURITY
290.	HOME AUTOMATION USING IOT SYSTEMS
291.	INTEGRATED INTERFACE FOR TEST AUTOMATION
292.	MIGRATING ON-PROMISE ENVIRONMENT TO AZURE CLOUD
293.	NETWORK SECURITY BY MONITORING TOOL OF LAN/WIFI
294.	OPERATIONAL LOG ANALYSIS AND ALERTING FOR BIG DATA
295.	PATIENT TREATMENT TIME PREDICTION IN BIG DATA ENVIRONMENT
296.	PRIVACY PRESERVING PUBLIC AUDITING FOR SECURE CLOUD STORAGE
297.	REAR CAMERA CONFIGURATION AND DIAGNOSTICS SUPPORT FOR CATERPILLAR MACHINES
298.	TWO FACTOR ACCESS CONTROL FOR WEB BASED CLOUD COMPUTING SERVICES
299.	ATTENDANCE MANAGEMENT SYSTEM
300.	DESIGNING HADR SOLUTION WITH SQL SERVER ALWAYS ON
301.	EMBEDDED SYSTEMS: AUTOMOTIVE APPLICATION FOR DRIVER AND VEHICLE SAFETY
302.	WINDOWS 10 MIGRATION USING SCCM TASK SEQUENCE
<b>M.Sc. Business Analytics</b>	
303.	360-DEGREE VIEW OF THE CUSTOMER
304.	A COMPARATIVE STUDY ON THE PERFORMANCE OF NBFC'S IN INDIA
305.	ANALYSING THE IMPACT OF DIGITAL TRANSFORMATION IN ENGLISH LANGUAGE EDUCATION USING SERVICE DESIGN AND DATA ANALYTICS
306.	ANALYSIS OF MARKET SENTIMENTS ON TAX POLICY CHANGE USING TEXT ANALYTICS
307.	ANALYSIS OF SUPPLY CHAIN BACKLOG IN HONEYWELL
308.	ANALYTICS BASED QA
309.	APPLYING IOT CONCEPTS IN SUPPLY CHAIN MANAGEMENT
310.	BUSINESS PROCESS MAPPING & MODELLING IN HOUSING INDUSTRY
311.	COPPER PRICE FORECASTING
312.	CUSTOMER DATABASE VALUE MAXIMIZATION USING MACHINE LEARNING AND PREDICTIVE ANALYTICS - A FORWARD LOOKING APPROACH TO CUSTOMER SEGMENTATION
313.	CUSTOMER LIFETIME, VALUE, CHURN ANALYSIS AND PERSPECTIVES - A STUDY
314.	DRIVING SUPPLY CHAIN EXCELLENCE THROUGH BIG DATA ANALYTICS
315.	FRAUD DETECTION USING DATA ANALYTICS IN BANKING
316.	HOUSE LOANS AND CATEGORIES OF LOANS IN INDIA AND ITS IMPACT ON ECONOMY

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317.	IMPORTANCE OF AML-KYC IN FINANCIAL INSTITUTIONS
318.	INVENTORY MANAGEMENT THROUGH BUFFER
319.	MODELING CUSTOMER REPEAT BUYING BEHAVIOR USING PROBABILISTIC DISTRIBUTION MODEL
320.	NEXT GENERATION OF INFORMATION SYSTEMS IN SOURCE-TO-PAY FUNCTIONS
321.	ON DEVELOPING DATA SCIENCE BASED FRAMEWORK - APPLICATIONS
322.	PREDICTING CUSTOMER CHURN IN TELECOM INDUSTRY
323.	PREDICTING EMPLOYEE ATTRITION USING LOGISTIC REGRESSION
324.	PREDICTING PACKET LOSS & HEALTH OF WIRELESS NETWORKS
325.	PREDICTING REVENUE OPPORTUNITY IN EMERGING TELECOM MARKETS.
326.	PREDICTING THE QUALITY OF HIRE
327.	PREDICTIVE LOG ANALYSIS
328.	REVENUE CYCLE ANALYTICS FOR HEALTHCARE
329.	RISK MANAGEMENT IN BANKING SECTOR
330.	RISK PREDICTIONS - ML MODELS
331.	SENTIMENT CLASSIFICATION ON CANADA MIGRANTS TWITTER DATA
332.	SUPPLY CHAIN MANAGEMENT IN PAINT INDUSTRY WITH REFERENCE TO ASIAN PAINTS
333.	TELECOMMUNICATIONS AND REAL TIME FRAUD DETECTION
334.	TIME SERIES FORECASTING AND DATA VISUALIZATION ON FUTURE WEB TRAFFIC FOR WIKIPEDIA ARTICLES
335.	UNDERSTANDING AND BUILDING AN OBJECT DETECTION MODEL
336.	VISUAL AND PREDICTION OF TERRORISM ACTIVITY



**LIST OF DISSERTATION WORK SUBMITTED BY STUDENTS UNDER THE WORK INTEGRATED LEARNING PROGRAMMES IN THE YEAR 2018**

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<b>M.B.A. Consultancy Management</b>	
1.	A COMPARATIVE FINANCIAL ANALYSIS OF 3 IT COMPANIES
2.	A DETAILED STRATEGY ON OPPORTUNITIES FOR AI (ARTIFICIAL INTELLIGENCE), MARKETING STRATEGIES (INTERNAL AND EXTERNAL), AND GO-TO-MARKET (GTM) STRATEGIES IN ENGINEERING SERVICES FOR INFOSYS LTD
3.	A STUDY OF THE AGILE PROJECT DELIVERY MODEL IN DAS (DELOITTE APPLICATION STUDIOS)
4.	A STUDY OF THE AGILE PROJECT DELIVERY MODEL IN DAS (DELOITTE APPLICATION STUDIOS)
5.	A STUDY ON IMPACT OF LEAN AS COST REDUCTION TOOL FOR CONSTRUCTION INDUSTRY IN INDIA
6.	ADAPTIVE EMPLOYEE BENEFIT MODEL
7.	AGILE FRAMEWORK - WAY OF WORKING
8.	AGILE FRAMEWORK - WAY OF WORKING
9.	AN ANALYSIS ON CONSISTENT STUDY OF CUSTOMER ACQUISITION COST FOR ORCASO
10.	AN ANALYTICAL STUDY ON INDIAN AVIATION INDUSTRY
11.	AN ANALYTICAL STUDY ON INDIAN TOURISM - MARKETING STRATEGIES OF EXPEDIA IN INDIAN TRAVEL MARKET
12.	ANAKAPUTHER JUTE WEAVERS ASSOCIATION
13.	ANALYSIS OF BLOCKCHAIN - DISTRIBUTED LEDGER TECHNOLOGY FOR HEALTHCARE DOMAIN AND ITS IMPLICATIONS
14.	ANALYTICS TO VERIFY COST OPTIMIZATION SUPPLY CHAIN
15.	APPLICATION OF MACHINE LEARNING IN SUPPLY CHAIN MANAGEMENT
16.	ASSESSMENT OF THE BUSINESS STRATEGIES FOLLOWED IN THE US HEALTH AND FITNESS INDUSTRY
17.	AVOIDING PROJECT FAILURE
18.	BUSINESS PROCESS ANALYSIS FOR DOCUMENT DELIVERY
19.	BUSINESS SOLUTIONS EXPANSION AND GROWTH
20.	COMPARISON STUDY OF MANUAL & AUTOMATION TESTING WITH RECOMMENDATIONS
21.	COMPARISON STUDY OF MANUAL & AUTOMATION TESTING WITH RECOMMENDATIONS
22.	COMPETENCY BASED BUSINESS MODEL
23.	CONSULTANTS REPORT ON PROJECT MANAGEMENT
24.	CONTINUAL IMPROVEMENT EXCEEDING EXPECTATIONS
25.	COST EFFECTIVE ENERGY CONSERVATION MODELS FOR SHOPPING MALLS
26.	CRITICAL SUCCESS FACTORS FOR PLANNING, SCHEDULING, AND CONTROLLING THE CONSTRUCTION PROJECTS
27.	CROSS-SKILLING ASSOCIATES FROM DIFFERENT FUNCTIONAL TEAMS TO ACHIEVE GREATER OPERATIONAL EFFICIENCY
28.	DEFINE APPROACH FOR GO TO MARKET FOR INCREASING REVENUE FOR SERVICES BUSINESS BASED ON MARKET SEGMENTATION AND IDENTIFYING THEMES OF GROWTH FOR BUSINESS OF TATA TECHNOLOGIES.
29.	DETAILED RESEARCH & ANALYSIS OF CUSTOMER SUPPORT PROCESSES & OPERATIONS AND FIND AREAS OF IMPROVEMENTS (IF ANY) WITH RECOMMENDATIONS.
30.	DEVELOP ADOPTABLE FRAMEWORK FOR TCS BANCS PRODUCTS AND CUSTOMER IMPLEMENTATIONS WITH AGILE IMPLEMENTATION DELIVERY MODEL
31.	DEVELOP ADOPTABLE FRAMEWORK FOR TCS BANCS PRODUCTS AND CUSTOMER IMPLEMENTATIONS WITH AGILE IMPLEMENTATION DELIVERY MODEL
32.	DEVELOPING BLUE OCEAN STRATEGY IN CONSTRUCTION INDUSTRY IN INDIA
33.	DEVELOPMENT OF INTERFACE FOR CONFIGURATION OF TRAIN PERFORMANCE OPTIMIZATION MODULE USING AGILE METHODOLOGY
34.	EFFICIENT PROPOSAL & BUSINESS SOLUTION DESIGNING FOR SAP MASTER DATA GOVERNANCE WITH MANAGING TEAM & DEVELOPMENT IN AGILE FRAMEWORK USING CONSULTANCY BEST PRACTICES
35.	ELECTRO-MECHANICAL, INSTRUMENTATION AND AUTOMATION SYSTEM MANAGEMENT IN MISSION

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36.	EMPLOYEE ENGAGEMENT IN IT FIRMS
37.	END-TO-END CONSULTING SUPPORT FOR GREENFIELD AEROSPACE MANUFACTURING FACILITY IN NON-CONVENTIONAL GEOGRAPHY
38.	ENTERPRISE RESOURCE PLANNING SAP (TECHNICAL - ABAP)
39.	ERP (SAP) DEMERGER FOR JAPAN
40.	ERP FOR MIS OF THE INDIAN ARMY
41.	ERP IMPLEMENTATION
42.	EVALUATION OF DIGITAL MARKETING SOLUTIONS AND IMPLEMENTATION RECOMMENDATIONS FOR ADAPTIVE US: A FUNCTIONAL ANALYSIS IN MARKETING
43.	FUELING CONTROL SYSTEM (PLC AND HMI)
44.	IMPACT OF SOFTWARE DEVELOPMENT METHODOLOGY CHOICE ON PROJECT DELIVERY
45.	IMPLEMENTATION OF DIGITAL CAMPAIGN MANAGEMENT SYSTEM TO IMPROVE THE MARKETING PROCESS
46.	IMPLEMENTATION OF KANBAN METHODOLOGY TO ADHERE TO THE SLA GUIDELINES(PERFORMANCE INDICATORS) AND TO IMPROVE THE CSAT(CUSTOMER SATISFACTION INDEX)
47.	IMPLEMENTATION OF SCRUM
48.	IMPROVING EMPLOYEE ENGAGEMENT
49.	IMPROVING PROJECT MANAGEMENT IN THE DEPARTMENT OF ENERGY AT CONSTRUCTION PROJECT
50.	IN-DEPTH ANALYSIS ON THE US MORTGAGE INDUSTRY
51.	INDIAN DEFENCE MARKET ANALYSIS AND RESEARCH TO SUPPORT STRATEGIC POSITIONING IN NICHE SEGMENT FOR COREEL TECHNOLOGIES PVT. LTD
52.	INSIGHT INTO THE FACTORS WHICH AFFECT HUMAN PERFORMANCE IN TRAINING SORTIES OF IAF PILOTS, ANALYSE THE CAUSES AND POSSIBLE REMEDIAL MEASURES.
53.	INTRODUCTION OF BLOCKCHAIN IN SUPPLY CHAIN MANAGEMENT
54.	IT SERVICE VALUE CREATION FRAMEWORK
55.	JOB ROLE DEFINITION AND COMPETENCY MAPPING IN ENGINEERING DIVISION FOR COREEL TECHNOLOGIES (I) PVT. LTD
56.	LEAN ANALYSIS TO INCREASE EFFECTIVENESS OF PROJECT MANAGEMENT
57.	MANAGING CUSTOMER REQUIREMENTS TO IMPROVE CUSTOMER SATISFACTION
58.	MARKET ANALYSIS, DESIGN AND PLANNING OF PRODUCT LAUNCH AND PROMOTION OF BATTERY ENERGY STORAGE SYSTEM
59.	MATERIAL IDENTIFICATION AND TRACKING SYSTEM FOR PIPING SPOOLS
60.	MATERIAL IDENTIFICATION AND TRACKING SYSTEM FOR PIPING SPOOLS
61.	NAVIC (ISROS NAVIGATION SATELLITE SYSTEM) IDENTIFYING BUSINESS OPPORTUNITIES FOR ANTRIX CORPORATION LIMITED (COMMERCIAL ARM OF ISRO)
62.	NEW PRODUCT DEVELOPMENT PROJECT SCHEDULE ESTIMATION AND STANDARD PROJECT PLAN
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64.	OPERATIONAL EXCELLENCE THROUGH TECHNOSTRUCTURAL AND HUMAN PROCESS INTERVENTIONS
65.	OPTIMIZATION OF EPC PROJECT MANAGEMENT
66.	OPTIMIZATION OF PRIVATE LABEL SEGMENT OF MEDPLUS (RETAIL PHARMA CHAIN)
67.	ORACLE CLOUD TRANSFORMATION AND CHANGE ENABLERS
68.	ORGANIZATION DEVELOPMENT PROCESS AND STRATEGY IMPLEMENTATION
69.	OVERCOMING CHALLENGES IN AN AIRPORT CONSTRUCTION PROJECT
70.	PLANNING AN IT SUPPORT TRANSITION FROM ONE VENDOR TO ANOTHER
71.	PREDICTIVE ANALYSIS OF TEMPERATURE FOR AIR CONDITIONERS
72.	PRODUCTIVITY ENHANCEMENT IN IT -BY LEAN PRINCIPLES & TECHNIQUES
73.	PROPOSAL TO SETUP AN EMULATION GROUP FOR SOCS
74.	QUEST FOR COMPETITIVE ADVANTAGE: HOW APPLIED MATERIALS IS REWIRING ITSELF
75.	RE-ENGINEERING AN ENTERPRISE CLOUD BI SOFTWARE FOR ISOLATED AND SECURE NETWORKS
76.	RESEARCH ON DIGITAL TRANSFORMATION OPPORTUNITIES ACROSS THE GLOBE & THE BUSINESS READINESS
77.	SERVICE MANAGEMENT SELF HELP
78.	SOFTWARE INTEGRATION PLAN AND OPERATIONAL SUPPORT STRATEGIES FOR ELECTRONIC SUBMISSIONS OF PV REPORTS

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79.	SPLIT OF ENTERPRISE SERVICE DESK INTO 2 INSTANCES
80.	STRATEGY FOR SUSTAINED GROWTH IN OPERATIONAL PARAMETERS FOR KEY BANKING ACCOUNTS
81.	STRATEGY FOR SUSTENANCE AND GROWTH OF VIDEO BUSINESS OF COREEL TECHNOLOGIES
82.	STREAMLINING EXISTING BUSINESS PROCESSES- PRODUCT TRANSFORMATION LIFE CYCLE
83.	STUDY OF RESEARCH REPORTING STYLES OF LEADING CONSULTING FIRMS
84.	STUDY ON ENABLING BUSINESS CONTINUITY PLAN FOR THE PROJECT
85.	SUCCESS PARAMETERS FOR LARGE PROGRAMS IN EACH GEOGRAPHY
86.	TEAM LEADERSHIP AND EMPLOYEE ENGAGEMENT IN AGE OF AI AND AUTOMATION
87.	THE FUNCTIONING OF SUPPLY CHAIN MANAGEMENT IN RELIANCE RETAIL
88.	TRADE, INFRASTRUCTURE AND TRANSACTION COSTS: THE IMPERATIVES FOR ASIAN ECONOMIC COOPERATION
89.	TRANSFORMATION AND OPTIMIZATION OF APPLICATION MAINTENANCE AND SUPPORT (IT-AMS)
90.	UTILIZING DATA DRIVEN SOLUTIONS AND PROJECT MANAGEMENT TECHNIQUES FOR IMPROVING AIRCRAFT FLEET MAINTENANCE OPERATIONAL RELIABILITY
91.	VALUE BASED APPROACH FOR AEROSPACE INDUSTRY TO SHARE ACCOUNTABILITY AND RISK TO MAXIMIZE PROFITABILITY
92.	VALUE ENGINEERING IN CONSTRUCTION TECHNOLOGY
93.	WORKPLACE FRIENDSHIPS AND PSYCHOLOGICAL WELL-BEING AMONG EXECUTIVES
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94.	ANALYTICAL STUDY OF INDIAN TRACTOR INDUSTRY & RECOMMEND STRATEGIES TO GAIN MARKET SHARE IN INDIAN TRACTOR INDUSTRY"
95.	A STUDY ON CORPORATISATION OF CURRENCY AND SECURITY PRESSES AND MINTS OF GOV. OF INDIA
96.	AGRICULTURAL BANKING AND FINANCIAL INCLUSION STRATEGIES
97.	ANALYSIS OF FIXED INCOME SECURITIES
98.	APPLICATION OF FINANCIAL PLANNING & FORECASTING FOR DECISION MAKING
99.	ARTIFICIAL INTELLIGENCE IN ROBOTS
100.	ASSET LIABILITY MANAGEMENT IN INDIAN OVERSEAS BANK
101.	BUSINESS STRATEGY FOR CONTAINER CORPORATION OF INDIA LIMITED
102.	COMPARATIVE PERFORMANCE ANALYSIS OF GROWTH FUNDS
103.	COMPETATIVE STRATEGY ANALYSIS AND BUSINESS ANALYSIS OF HINDUSTAN UNILEVER LIMITED
104.	COST REDUCTION AT CGPL, MUNDRA
105.	CREDIT RISK MANAGEMENT AND APPRAISAL TECHNIQUES FOR CORPORATE DEBTORS
106.	CUSTOMER CONTACTABILITY MODEL
107.	DEALING STRESSED ASSETS
108.	EFFECTIVE WORKING CAPITAL MANAGEMENT
109.	EQUITY ANALYSIS WITH REFERENCE TO IT SECTOR
110.	EXPLORING STRATEGIC DIRECTIONS FOR DYNAMIC BIZ'S SCALABLE GROWTH.
111.	EXPLORING THE 6DS IMPERATIVES ON ORGANIZATION'S PRODUCT ROADMAP STRATEGY
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113.	FINANCIAL MODELING AND ANALYSIS FOR PROSPECTIVE CUSTOMER ENGAGEMENTS
114.	FINANCIAL STATEMENT ANALYSIS OF INFOSYS LTD USING RATIO ANALYSIS
115.	GLOBAL MARKETS AND TECHNOLOGIES FOR FOOD SAFETY TESTING
116.	GOODS AND SERVICES TAX(GST)-INDIA IMPLEMENTATION IN ORACLE E-BUSINESS ERP SYSTEM
117.	GUJARAT BUSINESS ACCOUNTS POTENTIAL ANALYSIS
118.	IMPACT OF SMALL PAYMENT BANKS ON ECONOMIC GROWTH OF INDIA
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122.	MERGERS & ACQUISITIONS - A STRATEGIC APPROACH FOR GROWTH
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124.	SALES & ADVERTISING IN MARKETING
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127.	STRATEGIES TO HARNESS THE MASSES
128.	STUDY OF DERIVATIVE MARKET IN INDIA
129.	STUDY OF SCHEME FOR SUSTAINABLE STRUCTURING OF STRESSED ASSETS (S4A)
130.	STUDYING AND ANALYZING A FINISHED MERGER AND ACQUISITION DEAL ON FINANCIAL MODEL
131.	TECHNICAL ANALYSIS AND RESEARCH ON EQUITY MARKET
132.	THE HEDGING PRACTICES OF PUBLIC SECTOR OIL COMPANIES - POTENTIAL, GROWTH AND HURDLES IN THE VOLATILE OIL MARKET
133.	THE IMPACTS OF MERGERS AND ACQUISITIONS ON FIRM PERFORMANCE - A DEEP DIVE INTO THE FINANCIAL CRISIS PERIOD.
134.	TRADE LIFE CYCLE OF DERIVATIVE PRODUCTS
135.	VAR COMPUTATION AND BACK-TESTING IMPLEMENTATION
136.	WORKING CAPITAL MANAGEMENT
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138.	ADVANCE MANAGEMENT APPROACH TO STATISTICAL TOLERANCE CONTROL FOR QUALITY DESIGN, MANUFACTURING AND INSPECTION
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141.	APPLICATION OF QFD TOOLS FOR OFFICE DIGITIZATION
142.	BUILDING RIGHT COMPETENCY TO DEPLOY EFFECTIVE & SUSTAINED QMS
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152.	IMPLEMENTING LEAN IN SYSTEM DEVELOPMENT TO IMPROVE PRODUCTIVITY
153.	IMPROVEMENT IN CONSTRUCTION TECHNIQUE
154.	IMPROVEMENT IN SURFACE FINISH OF COMPRESSOR COVER CASTING TO REDUCE ENGINE EMISSION BY 10%
155.	IMPROVEMENT OF CPK FOR DENSITY VARIATION IN PROCESS USING SPC TOOLS
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220.	PROCESS ROBUSTNESS THROUGH CONTINUOUS PROCESS VERIFICATION AND STATISTICAL ANALYSIS
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223.	PRODUCTION AND MAINTENANCE ENGINEERING
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233.	REDUCING TOOL CHANGEOVER TIME
234.	REDUCTION IN CALS PRODUCTION LOSS BY REDUCING RE WELDING COUNT & STRIP BREAKAGES DUE TO WELDING
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255.	A REAL TIME FLOOD ALERT SYSTEM FOR PARKING LOT

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256.	ANALOG INPUT OUTPUT MODULE FOR PROTECTION RELAY
257.	ANALYSIS & DESIGN OF ENERGY CONSERVATION SYSTEM, DURING BRAKING CONDITION OF VARIABLE FREQUENCY DRIVE
258.	APPLICATION OF LISSAJOUS CURVES IN PHYSIOTHERAPY DEVICE.
259.	AUTO RATE ADAPTATION ALGORITHM FOR MIMO WI-FI
260.	AUTONOMOUS UNMANNED AERIAL VEHICLE COMMUNICATION USING SENSOR BASED FLYING AD HOCK NETWORKS
261.	BI-DIRECTIONAL FLOW MEASUREMENT USING REED SWITCHES IN BATTERY OPERATED ULTRA-LOW POWERED ELECTRONIC VOLUME CORRECTOR
262.	CELLPHONE BASED REMOTE CONTROLLER FOR MONITORING AND CONTROL OF IRRIGATION WATER PUMP USED IN FARMS
263.	CHARACTER RECOGNITION BASED INVENTORY MANAGEMENT SYSTEM USING IOT ENABLED SMART WORK ENVIRONMENT
264.	COMPARISON OF DIFFERENT METHODS OF CLOSED LOOP TENSION CONTROL IN AC DRIVES
265.	CYBER SECURITY REFERENCE ARCHITECTURE FOR EMBEDDED OPC UA FIELD DEVICE
266.	DESIGN & IMPLEMENTATION OF LORA BASED SMART ELECTRICITY METER FOR SMART CITY
267.	DESIGN AND DEVELOPMENT OF SMART WATER METER WITH QUALITY MONITORING AND AUTO CUT OFF
268.	DESIGN AND DEVELOPMENT OF PORTABLE INTERFACE UNIT FOR HIGH SPEED DATA TRANSFER FROM AN AREAL RECONNAISSANCE POD
269.	DESIGN AND IMPLEMENTATION OF 2-D PLOTTER
270.	DESIGN AND IMPLEMENTATION OF 5-STAGE, 64-BIT PROCESSOR BASED ON RISC-V ISA
271.	DESIGN AND IMPLEMENTATION OF AMBA BASED MASTER-SLAVE INTERCONNECT BUS ARCHITECTURE
272.	DESIGN AND IMPLEMENTATION OF SMART CONGESTION CONTROL SYSTEM
273.	DESIGN OF LASER BASED RECEIVER SYSTEMS
274.	DESIGN OF LASER BASED TRANSMITTER SYSTEMS
275.	DESIGNING A FRESH MILK DISPENSER ATTACHMENT TO SUPPORT EXISTING VENDING MACHINES
276.	DESIGNING OF STANDALONE VENDING MACHINE FOR OAT MEAL PREPARATION
277.	DETECTION AND CLASSIFICATION OF PLANT LEAF DISEASES
278.	DEVELOPMENT OF ARM CONTROLLER BASED DATA ACQUISITION SYSTEM FOR CTD SENSOR
279.	DEVELOPMENT OF DFMEA SYSTEM FOR ELECTRIC POWER STEERING SYSTEM AND ITS COMPARISON WITH SYSTEM THEORETIC PROCESS ANALYSIS APPROACH USED FOR HAZARD ANALYSIS AND RISK MITIGATION
280.	DEVELOPMENT OF RADAR SCAN CONVERTER FOR PHASED ARRAY RADAR
281.	DEVELOPMENT OF SMART AIR FILTER MONITORING SYSTEM FOR IMPROVING RELIABILITY OF METRO TRAINS
282.	DEVELOPMENT OF SMART POWER SUPPLY DESIGN
283.	DEVELOPMENT OF WIRELESS TEMPERATURE SENSOR NODES FOR APPLICATION IN TYRE CURING PRESSES
284.	DIGITAL LOCK ELECTRONIC PART DESIGN
285.	DISTRACTION AND FATIGUE DETECTION BY EYE TRACKING USING RASBERY-PI FOR DRIVER SAFETY
286.	EDGE COMPUTING IN ENVIRONMENT MONITORING OF STORAGE SITES
287.	ELEVATOR CALL REGISTRATION BY RFID
288.	EMBEDDED SOFTWARE TESTING FOR AUTOMOTIVE DOMAIN
289.	FACE DETECTION
290.	FEASIBILITY OF INTERNET OF THINGS (IOT) IN DEFENCE MANUFACTURING SECTOR
291.	FINAL REPORT R-APDRP
292.	FINGERPRINT BASED BANK PAYMENT SYSTEM
293.	FUZZY CLUSTERING FOR COLOUR IMAGE SEGMENTATION USING GRAVITATIONAL SEARCH ALGORITHM
294.	HARDWARE BASED SECURITY FOR IOT
295.	HOME AUTOMATION USING IOT
296.	HYBRID POWER TRAIN CONTROL UNIT FOR E-AMT
297.	IMPLEMENTATION OF DRIVER DROWSINESS ALERT AND AUTOMATIC VEHICLE CONTROL SYSTEM USING
298.	IN-VEHICLE COMMUNICATION NETWORK AND WIRELESS DIAGNOSTIC OF AN ECU

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299.	INVESTIGATING ADVANCED TECHNIQUES TO ENABLE NEXT GENERATION PARALLEL BUS INTERFACES ON LOW COST PCBA TECHNOLOGY
300.	IOT BASED AUTOMATION
301.	IOT BASED SMART HOME AUTOMATION WITH NODEMCU DEVKIT
302.	IOT BASED SMART HOME SYSTEM
303.	IOT GATEWAY HARDWARE SECURITY PROCESSOR MODULE WITH GIGABIT ETHERNET INTERFACE TO ENHANCE SENSOR DATA
304.	IOT GATEWAY PRODUCT FOR COMMISSIONING, SERVICING AND ESTABLISHING CLOUD INTERFACE TO SOLAR ENERGY PRODUCTS NETWORKED OVER LOCAL POWER LINE COMMUNICATION
305.	IP CORE DESIGN AND IMPLEMENTATION FOR INTERFACING SERIAL PROTOCOL BASED DEVICE WITH COMPUTER VIA PCI INTERFACE
306.	PERFORMANCE AND POWER EFFICIENT DUAL RAIL SOLUTION FOR SRAM DESIGN
307.	PERFORMANCE OPTIMIZATION AND VALIDATION OF DAQ SYSTEM FOR TIRE RADIUS MEASUREMENT USING LABVIEW
308.	PERFORMANCE STUDIES CLOUD INFRASTRUCTURE SCHEDULING ALGORITHMS
309.	PIC BASED GLOW DURATION CONTROL UNIT
310.	PIC MICROCONTROLLER SYSTEM DESIGN TO MEASURE HIGH END OSCILLATOR PARAMETERS
311.	RECOGNITION OF HANDWRITTEN CHARACTER USING ARTIFICIAL NEURAL NETWORKS
312.	RESEARCH, STUDY AND REPORT OUT OF GLOBAL, SCALABLE AND HIGH DENSE LORA GATEWAY AND NODES
313.	SAFE (E2E PROTECTED) COMMUNICATION AND FAULT HANDLING IN AUTOMOTIVE ECU
314.	SAFE LOCK USING MORSE CODE AND ARDUINO PROGRAMMING
315.	SCAD 500A: STRAIN MEASUREMENT SYSTEM WITH WIRELESS DATA ACCESS
316.	SENSOR INPUT/OUTPUT DATA TO CLOUD THROUGH IOT GATEWAY FOR INDUSTRIAL APPLICATION
317.	SENSORLESS CONTROL METHOD FOR BRUSHLESS DC MOTORS
318.	SETUP AND ANALYZE WIRELESS DISTRIBUTION SYSTEM
319.	SIGN LANGUAGE TO SPEECH CONVERSION TO ARDINO
320.	SMART AGRICULTURE
321.	SMART CITY PROTOTYPE USING CLOUD BASED IOT (NETWORKED EMBEDDED APPLICATION)
322.	SOC FPGA BASED MULTI CHANNEL MOTION CONTROL SYSTEM DEVELOPMENT
323.	SOLAR BASED POWER SUPPLY FOR EMERGENCY PURPOSE USING PRIORITY LOADS BY REAL TIME CLOCK & MONITOR USING IOT
324.	THE DESIGN OF IEC 61850 BASED SMART IED FOR THE LINE POST SENSOR WITH ADVANCED PROTECTION RELATED FEATURES
325.	UNIVERSAL DATA ACQUISITION SYSTEM FOR INDUSTRIAL CONTROL
326.	VALIDATION AND BENCHMARK OF INDUSTRIAL 4.0 PLATFORMS FOR IOT READINESS
327.	WIRELESS CRITICAL PROCESS CONTROL IN OIL AND GAS REFINERY PLANTS
328.	WIRELESS SENSOR NETWORK FOR SPACE OPTIMIZATION
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329.	"SMART EMPLOYEE LEADS TO SMART RAJ" A STEP AHEAD FOR SMART GOVERNANCE
330.	3D FACE RECOGNITION WITH LEARNING
331.	3D SHAPE DESIGN AND CLASSIFICATION WITH DEEP LEARNING.
332.	4G-LTE CELL SITE CONFIGURATION FILE AUTOMATION
333.	8051 MICRO-CONTROLLER BASED SMART SENSOR BASED INTRUSION PREVENTION GRID
334.	A CHARGING SYSTEM & METHOD TO UNLOCK A VEHICLE WHEN AUTHENTICATED SMARTPHONE IS OFF
335.	A CONSEQUENT APPROACH FOR VEHICLE RECOGNITION
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339.	A FORECASTING SYSTEM PREDICTING AUDIENCE FOR A MOVIE MULTIPLEX
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341.	A HYBRID RECOMMENDER SYSTEM FOR E-LEARNING
342.	A METHODOICAL APPROACH TO ROBOTIC PROCESS AUTOMATION
343.	A METHODOLOGY FOR SET SEARCH IN THE MULTIDIMENSIONAL DATASET USING THE NEAREST



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344.	A MIDDLEWARE APPLICATION FOR ASYNCHRONOUS MESSAGE AND FILE TRANSFER
345.	A NOVEL APPROACH FOR ARTERY/VEIN CLASSIFICATION ANS DIABETIC RETINOPATHY SYMPTOMS DIAGNOSIS IN REL EYE DATA
346.	A NOVEL GUI TESTING FRAMEWORK FOR AUTOMATED TESTING OF ANDROID APPLICATIONS
347.	A PREDICTIVE ANALYSIS OF MOVIE RATINGS USING IMDB AND TWITTER
348.	A PROFICIENT AND ACCURATE WEATHER PREDICTION TECHNIQUE USING DATA MINING
349.	A ROBUST REPUTATION MANAGEMENT MECHANISM IN THE FEDERATED CLOUD
350.	A SCALABLE AND ACCURATE CONTENT-BASED RECOMMENDATION SYSTEM
351.	A SECURE AND EFFICIENT DATA SHARING MECHANISM THROUGH MOBILE CLOUD COMPUTING
352.	A SLEEP DETECTION WITH DRIVER ASSISTANCE SECURITY FOR ACCIDENT AVOIDANCE BASED SYSTEMS.
353.	A SOPHISTICATED ANALYSIS AND PLANNING OF VEHICLE ACCENTED PREVENTION SYSTEM
354.	A STUDY ON IMPACT OF USER PSYCHOLOGY IN USER RATINGS AND SENTIMENTAL ANALYSIS
355.	A SYSTEM AND METHOD FOR DETECTING INTRUSIONS IN AN ENTERPRISE.
356.	A SYSTEM FOR MARKING MISSING DATA FIELD IN A TAX APPLICATION
357.	A SYSTEMATIC APPROACH FOR SAFETY EVIDENCE COLLECTION IN THE SAFETY-CRITICAL DOMAIN(HEALTHCARE)- EVIDENCE COLLECTOR
358.	A UNIFIED FRAMEWORK FOR AUTOMATED ACCESSIBILITY TESTING.
359.	À€IMAGE-TO TEXT-TO SPEECH CONVERSION USING ANDROID MOBILE APP
360.	ACCELERATING TEST AUTOMATION THROUGH A DOMAIN SPECIFIC LANGUAGE
361.	ACCENTURE SERVICES PRIVATE LIMITED, HYDERABAD
362.	ACCESS CONTROL OVER CONTROL-PLANE
363.	ACHIEVING EFFICIENT AND SECURE DATA ACQUISITION FOR CLOUD-SUPPORTED INTERNET OF THINGS IN SMART GRID
364.	ACHIEVING OPERATIONAL EXCELLENCE AND SERVICE EXCELLENCE USING EVENT MANAGEMENT AND AUTOMATION PARADIGMS
365.	ACUMEN DATA & ANALYTICS SOLUTION
366.	AD RECOMMENDATIONS IN DIGITAL ADVERTISING
367.	ADAPTATION OF THE GAME "20 QUESTIONS" TO BE PLAYED AGAINST A COMPUTER WITH A SEVEN QUESTION LIMIT.
368.	ADAPTIVE MONITORING AND MANAGEMENT OF SECURITY EVENTS WITH SDN
369.	ADAPTIVE NETWORK SECURITY USING THREAT AGENT ORCHESTRATION
370.	ADAPTIVE QOS MODEL IN IOT ENVIRONMENT
371.	ADAPTIVE SCAN CONTROL ALGORITHM FOR POWER SAVING IN WIFI DEVICES
372.	ADAPTIVE STREAMING PLAYBACK WITH YOUTUBE ON RASPBERRY PI WITH WEBOS PLATFORM
373.	ADD RELEVANCE SCORE TO ALM THUS IMPROVING IT TO ALRM (APPLICATION LIFECYCLE AND RELEVANCE MANAGEMENT)
374.	ADD UHS/HS200 SUPPORT IN SDHCI-OMAP LINUX DRIVER TO INCREASE MMC/SD PERFORMANCE IN TI'S DRA7XX SOCS
375.	ADDING HR PREDICTIVE ANALYTICS TO WFR
376.	ADHOC QUERY USING APACHE DRILL/SPARK SQL
377.	ADOPTION OF A SOFTWARE WORK ESTIMATION MODEL FOR THE WORLD BANK GROUP
378.	ADVANCE DATA ARCHIVAL AND RETRIEVAL SYSTEM
379.	ADVANCE PERSISTENT THREAT TEST BED FOR ANALYSIS OF HACKER TACTICS TECHNIQUES AND PROCEDURES
380.	ADVANCED AUTOMOTIVE INSTRUMENT CLUSTER DESIGN
381.	ADVANCED COMPLAINTS MANAGEMENT SYSTEM
382.	ADVANCED CUSTOMER SERVICE AUTOMATION WITH AI CHATBOT'S
383.	ADVANCED FIRE DETECTION SYSTEM
384.	ADVANCED STATISTICAL PROCESS CONTROL SERVICE FOR MANUFACTURING EXECUTION SYSTEM
385.	AI BASED ANOMALY DETECTION
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388.	AI FOR CRM APPLICATIONS IN ENTERPRISES
389.	AIR MISSION PLANNING SIMULATION SOFTWARE
390.	AIRCRAFT TRAINING SIMULATOR ON CLOUD
391.	ALARM DISPLAY SYSTEM
392.	ALERTS FOR UNUSUAL ROAD TRAFFIC
393.	ALEXA INTEGRATION FOR DIGITAL BANKING
394.	ALGORITHM FOR GAIT ANALYSIS AND FALL DETECTION & PREVENTION SYSTEM FOR PERKINSON'S PATIENT
395.	AMAZON ALEXA INTEGRATION WITH TRUESIGHT
396.	AN ADVANCED FRIEND SUGGESTION SYSTEM USING MODERN TECHNOLOGY OF DATA COLLECTION AND PROCESSING
397.	AN APPROACH TO CLOUD COMPUTING SECURITY USING HOMOMORPHIC ENCRYPTION
398.	AN APPROACH TO EFFECTIVE PROJECT MANAGEMENT BY USING PREDICTIVE ANALYTICS
399.	AN EFFICIENT AND FULLY AUTOMATED SMART HOME SECURITY SYSTEM
400.	AN EFFICIENT WAY OF MULTI KEY WORD POSITIONED SEARCH OVER ENCODED CLOUD DATA USING FUZZY SCHEME
401.	AN EXPERIMENT WITH COMPUTER VISION
402.	AN IMPROVED TOKEN BUCKET CONFIGURATION FOR RESIDENTIAL GATEWAYS
403.	AN INVESTIGATION OF MODELLING MACHINE LEARNING BASED SEMI AND COMPLETE SUPPORTIVE BOTS IN CUSTOMER SUPPORT SYSTEMS
404.	AN RFID (CONTACTLESS) DEVICE SIMULATOR FOR ATM APPLICATIONS
405.	ANALYSIS AND DESIGN OF A RECOMMENDER SYSTEM FOR THE SERVICE OFFERINGS OF FINANCIAL INSTITUTIONS
406.	ANALYSIS AND IMPLEMENTATION OF SIMPLE NETWORK MANAGEMENT PROTOCOL
407.	ANALYSIS AND METHODS FOR HARDENING OF CLOUD IDENTITY AND ACCESS MANAGEMENT (IAM) POLICIES USING DATA MINING TECHNIQUES
408.	ANALYSIS AND METHODS TO IDENTIFY ANOMALOUS DETECTION EVENTS
409.	ANALYSIS AND REFERENCE IMPLEMENTATION OF GOSSIP PROTOCOL BASED MONITORING SERVICE FOR MICRO-SERVICE ARCHITECTURE
410.	ANALYSIS OF CLOUD WORKLOADS AND THEIR BEHAVIOR USING SUMMARIZATION TECHNIQUES.
411.	ANALYSIS OF DATA MINING CLASSIFICATION TECHNIQUES
412.	ANALYSIS OF FOOTBALL PLAYERS PERFORMANCE USING MACHINE LEARNING
413.	ANALYSIS OF LANGUAGE ON ANXIETY DISORDER USING SOCIAL MEDIA
414.	ANALYSIS OF STUDENT DATA USING DATA MINING TECHNIQUES
415.	ANALYSIS OF TEST DESIGN TECHNIQUES FOR WEB BASED APPLICATION
416.	ANALYSIS OF THE ADVERSE EVENT REPORTING SYSTEM (AERS) IN PHARMACOVIGILANCE
417.	ANALYSIS OF TIME SYNCHRONIZATION ON END TO END PTP ENABLED NETWORK
418.	ANALYSIS ON WA-BONJOUR REAL-TIME USAGE
419.	ANALYTICAL APPROACH TO PROJECT RISK MANAGEMENT
420.	ANALYTICS DRIVEN TESTING
421.	ANALYTICS OF HISTORICAL DATA OVER BIGDATA PLATFORM
422.	ANALYZING CPU UTILIZATION OF BATCH APPLICATIONS AND PROVIDING SOLUTION FOR EFFICIENT BATCH AND REDUCED COST
423.	ANALYZING CUSTOMER SUCCESS IN SOFTWARE AS A SERVICE INDUSTRY
424.	ANALYZING THE SOFTWARE QUALITY OF A WEB BASED APPLICATION WITH AUTOMATION TESTING TOOLS
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432.	ANDROID DEVICE CONTROL
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435.	ANT HILL BASED VIRTUAL HONEY-POTS
436.	API TEST FRAMEWORK FOR DRIVER
437.	APPLICATION DEPLOYMENT MODEL USING SERVERLESS ARCHITECTURE IN CLOUD TO OPTIMIZE COMPUTING COST
438.	APPLICATION FOR ARCHITECTS
439.	APPLICATION OF AUGMENTED REALITY TO THE RETAIL INDUSTRY
440.	APPLICATION OF DATA ANALYTICS FOR SMART FARMING
441.	APPLICATION OF IP MULTICAST ROUTING IN LINUX KERNEL.
442.	APPLICATION OF LSA FOR KEYWORD SIMILARITY AND TEXT MATCHING USING VECTOR SPACE
443.	APPLICATION OF MACHINE LEARNING CONCEPTS IN BUSINESS PROCESS TROUBLESHOOTING
444.	APPLICATION OF MACHINE LEARNING IN SELECTION OF LIFECYCLE METHODOLOGIES FOR SOFTWARE PROJECT
445.	APPLICATION OF PREDICTIVE DATA MINING ALGORITHMS TO PREDICT EFFECT OF CANCER.
446.	APPLICATION SERVER TESTING. (MESSAGING SERVER AND SIP PROXY SERVER)
447.	APPLICATION UPGRADE AND REPLATFORMING TO ENTERPRISE CLOUD (MI)
448.	APPLICATION VIRTUALIZATION IN CONVERGED INFRASTRUCTURE
449.	APPLICATIONS OF FACE RECOGNITION TECHNOLOGY IN AUTOMOTIVE DOMAIN
450.	APPLYING MACHINE LEARNING TECHNIQUES FOR CLOSED-LOOP TESTING
451.	APPROACHES FOR SECURE DIGITAL PRESENTMENT OF ADHAAR
452.	ARCHITECTURAL CONSIDERATIONS OF REFACTORING A MONOLITHIC PRODUCT INTO MICRO SERVICES A CASE STUDE- IBM SECURITY KEY LIFE CYCLE MANAGERR
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454.	ARTIFICIAL INTELLIGENCE (CHATBOT AND VOICEBOT)
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456.	ARTIFICIAL INTELLIGENCE IN CUSTOMER RELATIONSHIP MANAGEMENT
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458.	ASM MANAGEMENT
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462.	ASSISTANT FOR TAHI CONFORMANCE SUITE EXECUTION
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467.	AUTOMATED CONTINUOUS INTEGRATION PIPELINE FOR DEVOPS IMPLEMENTATION IN PROJECTS
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469.	AUTOMATED DETECTION OF PULMONARY DISORDER
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474.	AUTOMATIC CLUSTERING OF INCIDENTS AND REPORT GENERATION
475.	AUTOMATIC CONVERSION OF SENTENCES INTO MATHEMATICAL EQUATIONS
476.	AUTOMATIC DETECTION OF RADIOLOGY SERVICE FOR CT SCAN USING MACHINE LEARNING
477.	AUTOMATIC FAILURE CATEGORIZATION AND PREDICTION
478.	AUTOMATIC GRADING OF USER RECORDED SONGS BY EXTRACTING AND ANALYZING VOCAL PARAMETERS OF THE SONG

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481.	AUTOMATIC TRACING OF EXECUTION FLOW FOR NETWORKING DEVICES
482.	AUTOMATIC TRADING SYSTEM
483.	AUTOMATIC VEHICLE NUMBER PLATE RECOGNITION SYSTEM
484.	AUTOMATIC WEIGHT CALCULATION IN CATIA
485.	AUTOMATING BASIC NEEDS BY EEG BASED ATTENTION TRACKING
486.	AUTOMATING INFRASTRUCTURE ONBOARDING ONTO AZURE
487.	AUTOMATING INVOICE GENERATION VIA ASSIST EDGE ROBOTIC PROCESS AUTOMATION
488.	AUTOMATING THE TESTING OF MOBILE APPLICATIONS
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490.	AUTOMATION FRAMEWORK FOR RADIO RESOURCE CONTROL ASN AIR MESSAGES ENCODING/DECODING AND NON ACCESS STARTUM MDL AIR MESSAGE ENCODING/DECODING
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496.	AUTOMATION OF IT OPERATIONS USING CHATBOTS WITH NATURAL LANGUAGE PROCESSING FEATURE
497.	AUTOMATION OF IT PROCESS USING RPA(ROBOTIC PROCESS AUTOMATION)
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506.	AUTOMOTIVE PART VALIDATION IN SUPPLY CHAIN MANAGEMENT USING BLOCKCHAIN
507.	AUTOSAR FOR AUTOMOTIVE
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510.	AZURE MACHINE LEARNING'S PREDICTIVE DATA CONSUMPTION FROM AN ERP SYSTEM
511.	BATTERY SECURITY UNIT
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514.	BETTER PREDICTION OF MOVIE RATINGS BASED ON USER'S COMMENTS USING MACHINE LEARNING ALGORITHMS.
515.	BGP LOAD BALANCER BASED ON CUSTOM KEY PARAMETER INDEXES
516.	BIG BUTTON - TRANSFERRING DATA ACROSS DATABASE SCHEMAS
517.	BIG DATA ANALYTICS ON CLOUD IN BANKING
518.	BIG DATA CLUSTERING ALGORITHM FOR MITIGATING THE RISK OF CUSTOMER CHURN
519.	BIG DATA MONITORING USING BATCH AND INCREMENTAL PROFILING
520.	BIG DATA ON SHIPS AND SHORE STATIONS FOR INCREASED SAFETY ON MARINE TRAFFIC, A SMART SHIP PROJECT
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522.	BLACK HOLE AND GRAY HOLE ATTACK INDEPENDENT MOBILE ADHOC NETWORK
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525.	BLOCKCHAIN ARCHITECTURE AND INTEGRATION WITH BANKING APPLICATIONS
526.	BLOCKCHAIN BASED INSURANCE MANAGEMENT SYSTEM
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529.	BOEING TOOLBOX LIBRARY
530.	BOTTLENECKS OF CLOUD COMPUTING
531.	BRILLE RECOGNITION SYSTEM AND CONVERSION TO TEXT AND SPEECH
532.	BRAND SENTIMENT ANALYSIS USING SAP DATA HUB -DATA PIPELINES
533.	BUILD AND DEPLOY APPLICATIONS ON FORCE.COM PLATFORMS
534.	BUILD PROCESS AUTOMATION SOFTWARE
535.	BUILDING A CLOUD BASED GENERIC DATA WAREHOUSE FOR CNEMA INDUSTRY WITH PLUGIN BASED DATA MINING
536.	BUILDING AN AI LOGISTICS APPLICATION
537.	BUILDING AN INCIDENT RESPONSE & FORENSIC DATA COLLECTION TOOL
538.	BUILDING BIG DATA PLATFORM FOR E-COMMERCE APPLICATION
539.	BUILDING CONSISTENT AND REUSABLE UI ARCHITECTURE
540.	BUILDING MOBILE APP FOR EDUCATIONAL PURPOSE USING HYBRID DEVELOPMENT
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542.	BUILDING SPRING BOOT MICROSERVICE AND DEPLOYING ON CLOUD
543.	BUSINESS CENTRIC VIEW FOR ORACLE BUSINESS SUITE
544.	BUSINESS EVENTS FOR SAP CLOUD APPLICATIONS
545.	BUSINESS LEADER
546.	BUSINESS PROCESS TEST VIA REQTEST
547.	CACHING AS A SERVICE
548.	CAD ON THE CLOUD
549.	CAMPUS WASTE MANAGEMENT SYSTEM
550.	CANCER DETECTION WITH THE HELP OF SYMPTOMS AND MACHINE LEARNING ALGORITHMS DEVELOPING WITH APPLICATIONS
551.	CAR MANUFACTURING PROCESS FLOW
552.	CASE SENTIMENT ANALYSIS AND DATA EXPLORATION
553.	CATCH PHRASE BASED DOCUMENT REPRESENTATION FOR IMPROVED PRIOR ART SEARCH
554.	CATEGORIZING DEFAULTER CLIENTS FOR AN ORGANIZATION USING MACHINE LEARNING
555.	CENSUS DATA MINING USING WEKA
556.	CERTIFICATION MANAGER
557.	CHALLENGES FOR ETLIN NEAR REAL-TIME ENVIRONMENT
558.	CHANGE MANAGEMENT SYSTEM
559.	CHANGEAPP
560.	CHARACTER RECOGNITION USING KOHONEN NEURAL NETWORK
561.	CHAT BOT FOR DATA MINING FROM VIDEO CATALOGUE WITH CUSTOMIZED RESULTS
562.	CHATBOT
563.	CHATBOT FOR CUSTOMER SUPPORT
564.	CHATBOT FOR USERHOME WIDGET - PLQ
565.	CHATBOT TO ASSIST USERS WITH COMMONLY ASKED QUERIES
566.	CHATBOT USING AI
567.	CHATBOT USING API.AI FOR REAL TIME ORDER STATS
568.	CHATBOTS IN FINANCIAL SOFTWARES
569.	CHATTERBOT:AI BASED CONVERSATIONAL AGENT
570.	CHILD MONITOR AND SOS SYSTEM
571.	CHRONIC KIDNEY DISEASE PREDICTION USING MACHINE LEARNING
572.	CHRONOS A PERSONAL DIGITAL ANALYZER
573.	CLASSIFICATION AND ANALYSIS OF TWITTER FAKE ACCOUNT
574.	CLASSIFICATION AND CLUSTERING OF ISSUES IN QUICKBOOKS COMPONENTS USING DEEP NEURAL NETWORKS
575.	CLASSIFICATION AND CLUSTERING OF TEXT DATA
576.	CLASSIFICATION AND SEGMENTATION OF AUDIO USING COMPARITIVE MACHINE LEARNING TECHNIQUES

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577.	CLASSIFICATION OF CLEAN FILES USING TELEMETRY
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579.	CLIENT SERVICES ANALYTICS
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581.	CLOSURE OF COVERAGE USING FORMAL TECHNIQUES
582.	CLOUD AGNOSTIC AND SCALABLE REVENUE TRACKING APPLICATION
583.	CLOUD ANALYTICS FOR ENERGY MANAGEMENT
584.	CLOUD APP FOR QUALITY FACILITY MANAGEMENT
585.	CLOUD BASED ANALYTICS SOLUTION FOR MANUFACTURING PLANT
586.	CLOUD BASED COLLABORATION SOFTWARE
587.	CLOUD BASED SCALABLE TEXT MINING TOOL FOR SOCIAL MEDIA ANALYTICS
588.	CLOUD COMPUTING ARCHITECTURE FOR A SECURE APPLICATION ENVIRONMENT
589.	CLOUD COMPUTING IN MILITARY ORGANIZATION
590.	CLOUD COMPUTING PLATFORM - AWS WITH ECHO
591.	CLOUD CONTROLS FRAMEWORK FOR ACCELERATING SAAS PLATFORM SECURITY
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593.	CLOUD SCALE QUALITY MONITORING TOOL
594.	CLUSTER BASED ANALYTICS OF STREAMING LOGS
595.	CM AUTOMATION
596.	CNK RECOMMENDER SYSTEMS POC
597.	CODE COVERAGE AND ITS RELATION WITH SOFTWARE QUALITY FOR T-24 TEMENOS PAYMENT HUB
598.	CODE OBFUSCATION
599.	COEXISTENCE AND SWITCHING OF CLOUD CONTENT AND BROADCASTED DATA ON A SET UP BOX
600.	COGNITIVE APPROACH TO INFORMATION SECURITY RISK ASSESSMENT
601.	COGNITON- AN AUTOMATED REQUESTS MONITORING AND ANALYSIS TOOL
602.	COLLABORATIVE AND PRODUCTIVE TOOLS FOR ENTERPRISE
603.	COLLABORATIVE FILTERING APPROACH FOR HUMANIZED RECOMMENDATIONS IN CHATBOTS
604.	COLOR PIN CODE FOR APP USER AUTHENTICATION
605.	COMMON AUTOMATION FRAMEWORK FOR WEB/ANDROID/DESKTOP WEB SERVICES
606.	COMMON TEST FRAMEWORK FOR .NET AND JAVA SDK API TESTING
607.	COMMUNICATION INTERFACE MODULE FOR IEC61850 PROTOCOL LATEST EDITION FOR DISTRIBUTED CONTROL SYSTEM
608.	COMPANY INCIDENT VOLUME PREDICTION, FUSION OF SUPERVISED AND UNSUPERVISED LEARNING ALGORITHMS.
609.	COMPARATIVE STUDY OF FUNCTION AS A SERVICE
610.	COMPARATIVE STUDY OF MACHINE LEARNING ALGORITHMS FOR RETAIL DEMAND FORECASTING
611.	COMPARATIVE STUDY ON PERFORMANCE OF DIFFERENT CLASSIFIERS: PREDICTING VELOCITY PROFILE USING RANDOM FOREST
612.	COMPLAINT BOX DASHBOARD: BACK TO BASIC NEEDS
613.	COMPONENT AND AUTOMATION TESTING
614.	COMPUTATIONAL FRAMEWORK FOR IOT BASED EHEALTH SOLUTION
615.	COMPUTER-BASED CONTENT EVALUATION PLATFORM
616.	CONCEPTUALISATION, DESIGN AND IMPLEMENTATION OF DIGITAL OFFICE
617.	CONNECTED CAR AND IOT AUTOMOTIVE
618.	CONNECTED DATAHUB -A SINGLE SOURCE FOR ANALYSIS
619.	CONSTRAINT BASED PLANNING AND SCHEDULING IN FIELD SERVICE MANAGEMENT
620.	CONTAINERIZED MULTI-REGION ORCHESTRATOR FOR OPENSTACK
621.	CONTENT AS A SERVICE FOR DIFFERENT PLATFORM USING CONTENT MANAGEMENT SYSTEM(CMS).
622.	CONTENT DRIVEN MUSIC INFORMATION RETRIEVAL SYSTEM FOR BETTER RECOMMENDER SYSTEM
623.	CONTENT RECOGNITION IN IMAGES USING DEEP LEARNING
624.	CONTEXT BASED SMART SERVICES USING IOT
625.	CONTEXT-AWARE SYSTEM FOR DATA DRIVEN APPLICATION OF DATA QUALITY

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626.	CONTEXTUAL ENQUIRY FRAMEWORK BASED ON AUGMENTED REALITY
627.	CONTEXTUAL INTELLIGENCE USING KNOWLEDGE GRAPHS
628.	CONTINUOUS INTEGRATION AND DELIVERY FOR CLOUD BASED CONTAINER APPLICATIONS
629.	CONTINUOUS INTEGRATION AND CONTINUOUS DEPLOYMENT ON ENTERPRISE PRODUCTS
630.	CONTINUOUS INTEGRATION AND DELIVERY OF CLOUD FOUNDRY APPLICATIONS USING SPRING CLOUD SKIPPER
631.	CONTRACT WORKFORCE MANGEMENT SYSTEM
632.	CONTROL MANAGEMENT AND MONITORING OF SOFTWARE SYSTEM IN PRODUCTION
633.	CONTROLLING MEDIA PLAYER USING STATIC HAND GESTURE RECOGNITION
634.	CONTROLLING OF INCREMENTAL LOADING IN RTDW
635.	COST & ASSET MANAGEMENT IN CLOUD
636.	COURSE RECOMMENDATION SYSTEM FOR STUDENTS
637.	CPS (CURRENT PRODUCT SUPPORT) QUALITY TRANSFORMATION - BY LEFT SHIFTING OF QUALITY
638.	CREATING CUSTOM FILTERS FOR LOGSTASH TO HELP ANALYZE LOGS
639.	CREATION FLAGS TOOL FOR CREO DEVELOPMENT
640.	CREDIT CARD FRAUD DETECTION USING DATA ANALYTICS
641.	CREDIT FOR PRIOR LEARNING
642.	CREDIT RISK ANALYZER
643.	CREDN-A CREIBLY REVIEWED NEWS APPLICATION
644.	CRIME TRENDZ PREDICTION USING DATA MINING TECHNIQUES
645.	CRIMINAL COURT RECORD CHECK
646.	CROP PRICE PREDICTION USING NEURAL NETWORK
647.	CRYPTOCURRENCY PRICE FORETELLER SYSTEM
648.	CSAR BASED APPLICATION LIFECYCLE MANAGEMENT
649.	CSR PORTAL: WEB APPLICATION FOR ALL EVENTS RELATED TO CORPORATE SOCIAL RESPONSIBILITY
650.	CUPS PFD MANAGEMENT- CONFIGURATION PUSH TO UP
651.	CUSTOM AGENT HUB
652.	CUSTOMER ANALYTICS IN RETAIL INDUSTRY
653.	CUSTOMER CENTRIC ECOMMERCE PLATFORM BUILT ON MEANSTACK
654.	CUSTOMER CHURN AND PRICE PREDICTION IN INDUSTRY SCENARIO USING MACHINE LEARNING
655.	CUSTOMER FEEDBACK ON THE TELEVISION ADVERTS VIA AUDIENCE MEASUREMENT SYSTEM
656.	CUSTOMER INSIGHTS
657.	CUSTOMER RETENTION RATE ANALYSIS AND PREDICTION
658.	CUSTOMER SEGMENTATION FOR FOCUSED TARGETING
659.	CUSTOMERUSECASE_QUALIFICATION
660.	CUSTOMIZATION OF O365 DELVE
661.	CUSTOMIZED DATA ANALYTICS APP FOR NATION FORESEE
662.	CUSTOMIZING THE MSD DURING ECALL
663.	CYBER SECURITY ARCHITECTURE FOR DEFENSE COMMUNICATION NETWORK USING COGNITIVE NETWORKING
664.	CYBER SECURITY FRAMEWORK FOR INDIAN DEFENSE FORCES USING ACTIVE DEFENSE MECHANISMS
665.	DASHBOARD- CENTRALIZED POINT OF INFORMATION ACCESS OF ALL ACTIVITIES OF SATELLITE DATA RECEPTION AND INGEST SYSTEM AREA
666.	DATA ANALYSIS IN MICRO SERVICE ORIENTED ARCHITECTURE
667.	DATA ANALYTIC MODELLING ON DERIVATIVE RISK
668.	DATA ANALYTICS / DATA SCIENCE USAGE IN E-BUSINESS
669.	DATA ANALYTICS FROM BODY COMPOSITION PARAMETERS USING KARADA SCAN BETWEEN MEDITATORS AND NON-MEDITATORS
670.	DATA CLASSIFICATION
671.	DATA CLUSTERING
672.	DATA COMMUNICATION CHANNEL (DCC)/GENERAL COMMUNICATION CHANNEL (GCC) LINK AGGREGATION
673.	DATA CONVERSION USING JAVA BATCH JOBS

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674.	DATA DRIVEN APPROACH TO TESTING USING DATA MINING TECHNIQUES
675.	DATA ENCRYPTION IN NON-PRODUCTION EQUIPMENT
676.	DATA ENGINEERING PRACTICES IN A BIG DATA LAKE ECOSYSTEM
677.	DATA INTEGRATION WITH MULE ESB AND ITS DEVOPS INTEGRATION IN AGILE MANNER
678.	DATA LAKE MANAGEMENT
679.	DATA MINING AND VISUALIZATION OF SMART TV LOGS
680.	DATA MINING APPLICATION
681.	DATA MINING APPLICATIONS IN CIVIL AVIATION SECTOR
682.	DATA MINING APPROACH FOR BOX OFFICE SUCCESS PREDICTION OF MOVIE
683.	DATA MINING MODEL TO PREDICT EXPECTED TIME REQUIRED TO COMPLETE A TASK
684.	DATA MINING MODELLING USING DECISION TREES TO PREDICT & TARGET PROSPECTIVE BUYERS IN RETAIL MARKETING DOMAIN
685.	DATA MINING ON UI BASED MALWARE FOR AUTO CLASSIFICATION
686.	DATA MINING WITH R PROGRAMMING LANGUAGE USING SQL SERVER 2016
687.	DATA ORCHESTRATION USING LINUX SCRIPTS
688.	DATA PACKAGING
689.	DATA PROCESSING IN HADOOP
690.	DATA PROCESSING USING MACHINE LEARNING (NEURAL NETWORKS)
691.	DATA SECURITY IN MULTI-TENANT CLOUD APPLICATIONS
692.	DATA TRANSMISSION CAPACITY INCREMENT IN WIRELESS NETWORK THROUGH QUAD STATES OF POLARIZED LIGHT
693.	DATA VALIDATION APPLICATION
694.	DATA VISUALIZATION AND REPORTING
695.	DATA VISUALIZATION FOR EFFICIENT DECISION MAKING AND BETTER INSIGHTS USING TABLEAU
696.	DATA WAREHOUSING AUTOMATION UTILITY (DWAU)
697.	DATA WAREHOUSING FOR SUPPLY CHAIN MANAGEMENT IN MANUFACTURING INDUSTRY
698.	DATA WAREHOUSING IN INSURANCE INDUSTRIES
699.	DATABASE FOR A WAR GAME
700.	DATABASE SYSTEM CAPACITY PLANNING AND MANAGEMENT
701.	DATABASE SYSTEMS AND APPLICATIONS
702.	DATASCIENCELEARNING MOBILE PLATFORM
703.	DATE DIMENSION KEY GENERATION SUBSYSTEM TO FACILITATE VIEWING OF REPORTING DATA AS PER THE REPORT USERS PREFERRED TIME ZONE
704.	DAYTRADERS MANAGEMENT SYSTEM
705.	DB2 TRACE VISUALIZATION
706.	DEALERSHIP 360 DEGREE VIEW OF AUTOMOBILE
707.	DE-CENTRALIZED AND DISTRIBUTED DATA COLLECTION AND DATA PROCESSING NETWORK
708.	DECENTRALIZED SYSTEMS
709.	DECISION AND PREDICTION ANALYSIS SYSTEM FOR STOCK MARKET
710.	DEDUPLICATION IMPLEMENTATION FOR IDRIVE
711.	DE-DUPLICATION OF MOBILE APPLICATION DATA
712.	DEEP LEARNING AS A SERVICE
713.	DEEP LEARNING BASED CONVERSATIONAL AGENT MODELS
714.	DEEP NEURAL NETWORK FOR CHILD CLASSIFICATION ON EMBEDDED PLATFORMS
715.	DEFENCE CANTEEN MANAGEMENT SYSTEM
716.	DEPLOY SECURE FILE SHARING USING OWNCLOUD.
717.	DEPLOYING NETWORK MANAGEMENT SYSTEM CPE APPLICATION IN AWS CLOUD WITH DISTRIBUTED ARCHITECTURE
718.	DEPLOYMENT OF SECURE RADIUS SERVICES IN C-DOT DATACENTER
719.	DEPLOYMENT TIME PREDICTION OF REALIZE SUITE OF PRODUCTS USING MACHINE LEARNING
720.	DESIGN & DEVELOPMENT OF DATA WAREHOUSE FOR PROCUREMENT PROCESS.
721.	DESIGN & IMPLEMENT COMMON PLATFORM FOR FAULT INDICATION AND USER AUTHENTICATION FOR POWER TOOLS



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722.	DESIGN & IMPLEMENTATION OF TWO-DIMENSIONAL SPATIAL DATA TYPES AND THEIR INTEGRATION INTO DATABASE SYSTEMS
723.	DESIGN AND CREATION OF GUI TESTING AUTOMATION FRAMEWORK USING AUTOIT
724.	DESIGN AND DEVELOPMENT OF ACTIVITY DASHBOARD
725.	DESIGN AND DEVELOPMENT OF DOMESTIC ENERGY MANAGEMENT SYSTEM USING DISTRIBUTED EMBEDDED SYSTEMS.
726.	DESIGN AND DEVELOPMENT OF QUICKLINKS BASED ON ASSOCIATION RULE MINING FOR IDRAC9 SERVER MANAGEMENT CONTROLLERS WEB INTERFACE
727.	DESIGN AND DEVELOPMENT OF TEST AUTOMATION FRAMEWORK
728.	DESIGN AND IMPLEMENTATION OF CLASSIFICATION ENGINE BASED ON STATIC ANALYSIS FOR THE DETECTION OF MALICIOUS MICROSOFT OFFICE DOCUMENTS
729.	DESIGN AND IMPLEMENTATION OF CRYPTO ACCELERATOR DRIVER EXTENSION FOR TI K2G SOC
730.	DESIGN AND IMPLEMENTATION OF GENERIC AUTOMATION FRAMEWORK TO PROVIDE END TO END TESTING SOLUTION ACROSS MULTIPLE PLATFORMS
731.	DESIGN AND IMPLEMENTATION OF OPENVX GRAPH PIPELINING EXTENSION FOR TI TDA2X EMBEDDED COMPUTER VISION SOC
732.	DESIGN OF AN ALGORITHM TO AUTOMATICALLY TURN ON TURN INDICATORS IN VEHICLES EQUIPPED WITH NAVIGATION SYSTEM
733.	DESIGN OF SINGLE STAGE GRID-TIE BUCK-BOOST THREE SWITCHED INVERTER FOR RESIDENTIAL APPLICATIONS
734.	DESIGNING AND IMPLEMENTING SECURE HARD DISK FOR MULTI USER ENVIRONMENT
735.	DESIGNING OF DATABASE AND REPORT ENGINE FOR PROCESS AUTOMATION PROJECTS ON MAHINDRA E-COMMERCE PLATFORM (M2ALL.COM)
736.	DESIGNING OF E-LEARNING PLATFORM ON CLOUD
737.	DESKTOP APPLICATION FOR PIPE SUPPORTS SELECTION IN SMART 3D
738.	DETECT PATTERNS IN UP REVISE DATA OF PARTS USING MACHINE LEARNING
739.	DETECTING AND REMOVING WEB APPLICATION VULNERABILITIES WITH STATIC ANALYSIS AND DATA MINING
740.	DETECTING AND RESOLVING PRIVACY CONFLICT IN DATA SHARING PLATFORM
741.	DETECTING DGA MALWARE USING NETFLOW
742.	DETECTING STRESS IN SOCIAL NETWORKS BY USING CROSS AUTO ENCODERS
743.	DETECTION OF ATYPICAL FILE ACCESS USING ACCESS PATTERN CAPTURE AND ANALYSIS IN FILE SYSTEMS
744.	DETECTION OF GREY CALLS USING CALL DETAIL RECORD (CDR) DATA ANALYSIS
745.	DETERMINING EFFECTIVENESS OF ONLINE DIGITAL ADVERTISEMENTS
746.	DETERMINING SYSTEM SPECIFICATION USING DEEP LEARNING/ML TECHNIQUES FOR ADVANCED DRIVER ASSISTANCE SYSTEMS
747.	DEVELOP AN ONLINE PROCUREMENT TOOL
748.	DEVELOP TEST STRATEGY FOR ISP - COMPLEX CLOUD SECURITY APPLICATION
749.	DEVELOPING AN INTELLIGENT QUERY RESPONSE ENGINE BASED ON HISTORICAL TREND
750.	DEVELOPING METHODOLOGIES FOR MITIGATION OF DISTRIBUTED DENIAL OF SERVICE ATTACKS
751.	DEVELOPING TEST AUTOMATION FRAMEWORK FOR PARALLEL EXECUTION
752.	DEVELOPMENT AND IMPLEMENTATION OF SECURE ONLINE REGISTRATION SOFTWARE INTEGRATED WITH PAYMENT GATEWAY AND DIGILOCKER FOR THE RECRUITMENT OF VARIOUS ORGANIZATIONS
753.	DEVELOPMENT OF A MESSAGING SYSTEM WHICH IS SECURED BY VARIOUS CRYPTOGRAPHIC ALGORITHMS
754.	DEVELOPMENT OF AN ANDROID APPLICATION FOR MANAGEMENT OF DUPLICATE FILES ON ANDROID MOBILE
755.	DEVELOPMENT OF HEALTHCARE PLUG-IN FOR NRHM AND EMR FOR READY AVAILABILITY OF INDIVIDUAL PATIENT'S VITAL RECORDS ON SECURE CLOUD
756.	DEVELOPMENT OF MODEL TO FORECAST SHORT TERM ELECTRICITY DEMAND OF THE STATE
757.	DEVELOPMENT OF PROTOCOL STACK FOR CONNECTING NETWORK OF DIFFERENT SECURITY CLASSIFICATION
758.	DEVELOPMENT OF SNMP MONITOR.
759.	DEVICE MANAGEMENT SYSTEM (DMS)
760.	DEVICE TO DEVICE COMMUNICATION IN BATTLEFIELD: CELLULAR NETWORK

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761.	DEVOPS BASED INFRASTRUCTURE AUTOMATION USING IAC AND CAC
762.	DEVOPS MADE EASY FOR ENTERPRISES
763.	DEVOPS PRODUCTION ENVIRONMENT
764.	DIABETIC RETINOPATHY DETECTION USING AI
765.	DIAGNOSTIC AUTOMATION OF INFOTAINMENT SYSTEM
766.	DIALOG GENERATION USING REINFORCEMENT LEARNING
767.	DIGIT RECOGNITION USING MACHINE LEARNING ALGORITHMS
768.	DIGITAL ENGAGEMENT IN TODAY'S WORLD
769.	DIGITAL GAUGES FOR AUTOMOTIVE INSTRUMENTATION SYSTEM
770.	DIGITAL MARKETING BASED ON GEO LOCATION
771.	DIGITAL MARKETING CAMPAIGN AUTOMATION
772.	DIGITAL TRANSFORMATION IN FINANCIAL AND MANAGEMENT ACCOUNTING
773.	DIGITAL VIDEO BROADCASTING MPEG TRANSPORT STREAM ANALYZER TOOL
774.	DIGITAL VIRTUAL ASSISTANT TO PREDICT NON PERFORMING ASSETS & SAVINGS IN PRUDENT FINANCIAL MANAGEMENT
775.	DIGITAL WARDROBE
776.	DISASTER RECOVERY SOLUTION
777.	DISEASE DIAGNOSIS
778.	DISPUTE AND FRAUD RISK SCORING FOR PREPAID CARDS
779.	DISTRIBUTED CACHE
780.	DISTRIBUTED CLOUD COMPUTING FOR HOSTING REAL-TIME APPLICATIONS
781.	DISTRIBUTED CONFIDENTIAL DATA ENTRY(DCDE)
782.	DISTRIBUTED LEARNING MANAGEMENT SYSTEM WITH SECURE CONTENT DELIVERY
783.	DISTRIBUTED LEDGER BASED PHARMACY MEDICAL RECORD SHARING SYSTEM
784.	DISTRIBUTED REQUEST TRACING IN MICROSERVICES
785.	DISTRIBUTED SYSTEMS MONITORING SOLUTION
786.	DOCKER CONTAINER BASED MEDICAL IMAGING (DICOM) QUALITY DETECTION ALGORITHM
787.	DOCUMENT CLASSIFICATION AND DIGITIZATION
788.	DOCUMENT CLUSTERING
789.	DOCUMENT PARSING AND SUMMARIZATION
790.	DOMINO APPLICATION CLOUD READY
791.	DRIVER EMOTION PREDICTION MODEL USING RECURRENT NEURAL NETWORK (RNN)
792.	DRIVER SAFETY SYSTEM WITH ADVANCE TELEMATICS
793.	DRIVING BEHAVIOUR ANALYSIS USING OBD DATA
794.	DSP INTERFACE WITH ARM9
795.	DYNAMIC ADVERTISEMENT BASED ON USERS INTEREST
796.	DYNAMIC DATA MASKING
797.	DYNAMIC MEMORY CONTROL OF VIRTUAL MACHINES ON A SERVER
798.	EARLY PREDICTION OR DETECTION OF DIABETIC RETINOPATHY
799.	E-BUSINESS FOR BOATS AND YACHTS
800.	E-BUSINESS FOR TELECOMMUNICATION PRODUCTS
801.	E-CITIZEN-POLICING
802.	ECOMMERCE CUSTOMER SERVICE CHATBOT
803.	EDGE DETECTION OVER GRAVITY USING SUSAN PRINCIPLE FOR 2D BATTLEFIELD IMAGES
804.	EDI PROCESSING IN CLOUD ARCHITECTURE
805.	EDUCATION CARD
806.	EFFECTIVE PERSONALIZATION USING VISITORS JOURNEY AND CREATIVE FEATURES
807.	EFFECTIVE QUALITY ANALYSIS OF ETHERNET OAM FOR SERVICE PROVIDER NETWORKS
808.	EFFICIENT DUPLICATE/MATCHING DATA PROCESSING IN MASTER DATA MANAGEMENT (MDM).
809.	EFFICIENT METHOD OF DATA LOADING AND REPORTING USING BI AND BIG DATA TECHNOLOGIES COMPARISON CASE STUDY
810.	EFFORT TRACKER

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811.	EHEALTHCARE: AN AADHAR BASED TRACKING SYSTEM
812.	ELECTRONIC DOCUMENT MANAGEMENT SYSTEM
813.	ELITE TRADING CLIENT
814.	EMBEDDED AUDIO SYSTEMS
815.	EMBEDDED DEVICES MANAGEMENT USING MOBILE APP AND CLOUD INTEGRATION
816.	EMBEDDED DEVICES OUTPUT DISPLAY SCREEN GUI VERIFICATION TOOL
817.	EMBEDDED SECURITY FOR AUTOMOTIVE ECUS
818.	EMBEDDED SYSTEM AS SECURITY RESOURCE FOR DISABLED PEOPLE
819.	EMOTION ANALYSIS WITH PERSONALITY IDENTIFICATION USING IBM WATSON
820.	EMOTION DETECTION BASED ON SPEECH
821.	EMOTION SENSING IN CONVERSATIONAL AGENTS USING TEXT DATA
822.	EMPLOYEE DASHBOARD WITH ROLE MANAGEMENT
823.	EMPLOYEE DATA CENTER ACCESS WITH OTP & SMART CARD NFC SCANNING
824.	EMPLOYEE ONBOARDING AND HR TRACKING SYSTEM USING ONIT'S APP BUILDER PLATFORM
825.	EMPLOYING MACHINE LEARNING METHODS FOR DETECTING MALICIOUS SIP TRAFFIC TARGETING AVAYA AURA PLATFORM, AND RESTRAINING IT.
826.	ENABLE ADMINS TO DEPLOY OUTLOOK ADD-INS WITH MORE GRANULAR CONTROL
827.	ENABLING CONNECTED DRIVE APPLICATIONS IN C2000 REAL TIME MICROCONTROLLERS
828.	END-TO-END CHURN PREDICTION MODEL: CONSUMER SECURITY SOFTWARE
829.	END-TO-END LTE-A NETWORK OPTIMIZATION & PERFORMANCE IMPROVEMENTS IN PROJECTIONS FOR BSNL'S LTE DEPLOYMENT IN INDIA: A MODELING AND SIMULATIONS STUDY
830.	ENERGY AWARE COMPUTING USING DVFS
831.	ENHANCEMENT TO ANALYSIS MODULES IN SYMANTEC MSS TO DETECTED THREATS/INTELLIGENCE AND BREACHES BY MONITORING INTERNET (SOCIAL MEDIA/PASTE SITES /PUBLIC/UNDERGROUND FORUMS)
832.	ENHANCING SKETCH-BASED IMAGE RETRIEVAL BY RE-RANKING AND RELEVANCE FEEDBACK
833.	ENSURING AUTOMOTIVE ELECTRONICS SYSTEM SECURITY WITH THE USE OF ARM VIRTUALIZATION AND SECURITY EXTENSIONS
834.	ENTERPRISE APPLICATION INTEGRATION OF ORACLE E-BUSINESS TO ENTERPRISE IMAGING LIBRARY
835.	ENTERPRISE APPLICATION INTEGRATION USING ENTERPRISE SERVICE BUS
836.	ENTERPRISE APPLICATION PRODUCT SOFTWARE FOR ONLINE SELLERS
837.	ENTERPRISE ASSET REGISTRATION AND APPLICATION PROGRAMMING INTERFACES MANAGEMENT (EARA)
838.	ENTERPRISE DATA WAREHOUSE
839.	ENTERPRISE INFRASTRUCTURE ANALYTICS
840.	ENTERPRISE MOBILE COMPUTING
841.	ENTERPRISE MOBILITY MANAGEMENT FOR ANDROID
842.	ENTERPRISE SECURITY OPERATION CENTER (SOC)ONBOARDING
843.	ENTERPRISE SERVICE BUS SECURITY REMEDIATION
844.	E-PAPER EVALUATION
845.	EQUITY STOCK CLASSIFICATION USING DATA MINING
846.	E-SIM SOLUTION
847.	ESTIMATION AND PREDICTION OF DROPOUT STUDENTS IN SCHOOL EDUCATION
848.	ESTIMATION AND PREDICTION OF MAINSTREAMING OF OUT OF SCHOOL STUDENTS IN SCHOOL EDUCATION
849.	ESTIMATION OF ENGINE CONTROL PARAMETERS FOR ELECTRONIC DIESEL ENGINES USING MACHINE LEARNING TECHNIQUES
850.	ETHERNET BASED MULTI AXIS CONTROLLER
851.	ETHERNET CHANNEL INFRASTRUCTURE
852.	ETL SOLUTION FOR ANALYZING THE PROGRESS AND THE EQUALITY OF THE SOFTWARE PROGRAMS
853.	ETL SYSTEM FOR SERVICE ORDER DATABASE
854.	ETL USING APACHE FLINK
855.	EU GDPR - INFORMATION RETENTION
856.	EUICC WITH DUAL ACTIVE PROFILE

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857.	E-UTRAN RADIO ACCESS BEARER DROP OPTIMIZATION THROUGH AUTOMATED PLANNING AND MONITORING
858.	EVALUATE AND DEFINE AGILE TESTING STRATEGY
859.	EVALUATING LLVM FRAMEWORK FOR HDL LANGUAGE (SYSTEM VERILOG)
860.	EVALUATION OF RUST AS A PROGRAMMING PLATFORM FOR IOT LIGHTING SYSTEMS
861.	EVALUATION OF SOFTWARE UNDERSTANDABILITY USING SOFTWARE METRICS
862.	EVALUATION STUDY ON THE LAYER 2 AND LAYER 3 MULTICAST PROTOCOL CONFIGURATION AND PERFORMANCE IN A VXLAN NETWORK
863.	EVENT DRIVEN STOCK MARKET ANALYSIS WITH A CHATBOT
864.	EVENTUAL CONSISTENCY IN REAL-TIME FINANCIAL SYSTEMS WITH A MICRO-SERVICE ARCHITECTURE
865.	EVOLUTION OF SOFTWARE ARCHITECTURE MODELLING
866.	EXPERT SYSTEM FOR CANDIDATE SELECTION IN AN INTERVIEW
867.	EXPLORATORY & PREDICTIVE ANALYTICS ON E-COMMERCE DATA
868.	EXPLORATORY AND PREDICTIVE DATA ANALYSIS USING DATA MINING TECHNIQUES
869.	EXTENDED VOLTAGE SUPPORT THROUGH ALTERNATE MODE OVER USB TYPE C
870.	EXTENDING FUNCTIONALITIES OF VOICE ASSISTANTS(GOOGLE ASSISTANT, AMAZON ALEXA) TO BE MORE AWARE OF SURROUNDING ACTIVITIES
871.	EXTENDING MAHINDRA E-COMMERCE PLATFORM (M2ALL.COM) TO AUTO SECTOR DEALERS.
872.	EXTENDING VOICE BREAKOUT IN CLOUD CORE ENVIRONMENT
873.	EXTRACT / DOWNLOAD INVOICES FOR AIRWAYS USING ROBOTICS PROCESS AUTOMATION
874.	EXTRACTING AND ANALYSIS OF RESUME DATA WITH NLP
875.	FACE DETECTION
876.	FACE RECOGNITION BASED RULES ENGINE FOR EVENT MANAGEMENT SYSTEM
877.	FACE RECOGNITION SYSTEM
878.	FACIAL RECOGNITION SYSTEM OBJECT MATCHING USING SPEEDED UP ROBUST FEATURES
879.	FACTOID BASED QUESTION ANSWERING SYSTEM
880.	FACTOR AFFECTING ACCURACY OF PHASE AND TIME RECOVERED USING PACKET BASED PROTOCOL LIKE PTP (PRECISION TIME PROTOCOL)
881.	FAILURE PREDICTION OF DISK DRIVES
882.	FASTERFACEVERIFICATION USING ONE SHOT LEARNING IN DEEP LEARNING
883.	FATAL ACCIDENT PREVENTION SYSTEM THROUGH COMPUTER VISION
884.	FAULT INCIDENT REPORT MANAGER
885.	FAULT LOCALIZATION
886.	FAULT TOLERANCE ROUTING IN 3D NETWORK ON CHIP
887.	FEATURE BASED RECOMMENDATION SYSTEMS-E-COMERCE AND RETAIL
888.	FEATURE REDUCTION BY USING NBC AGAINST DOS ATTACKS
889.	FILE SYSTEM MINI FILER TO PAUSE AND RESUME I/O
890.	FILTER CONTROL UNIT FOR TACTICAL V/UHF COMMUNICATION RADIO
891.	FINANCIAL MESSAGE FORMAT TRANSLATION FOR DOMESTIC TRANSACTIONS VIA MASTERCARD.
892.	FINDING FAILURE PATTERNS AND PREDICTING FAILURES USING MACHINE LEARNING
893.	FLEET MANAGEMENT AND IOT FARMING
894.	FLIGHT E-BOOKING MANAGEMENT SYSTEM
895.	FLIGHT TIME MANAGEMENT APPLICATION
896.	FOOD STOCK MANAGEMENT FOR SUPERMARKETS BASED ON CONSUMER CONSUMPTION PATTERN
897.	FORECAST ANALYSIS ON CAB SERVICES
898.	FORECAST OF GOODS AND SERVICES DEMAND
899.	FORECASTING PROFITS IN CRYPTO CURRENCIES USING MACHINE LEARNING TECHNIQUES
900.	FORECASTING SOFTWARE QUALITY USING ML
901.	FORECASTING TIME SERIES- STATISTICAL METHODS VS MACHINE LEARNING
902.	FORMULATION OF CRYPTOGRAPHY AND SECURITY SOLUTION FOR INDIAN ARMY
903.	FRACTURE ANALYSIS FROM X-RAY IMAGES
904.	FRAMEWORK DESIGN FOR DEVICE LAYER
905.	FRAMEWORK FOR WORKFLOW AUTOMATION AND MANAGEMENT

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906.	FREIGHTER ADHOC REQUESTS MANAGEMENT SYSTEM
907.	FREQUENCY AGILITY AND DUTYCYCLE MONITORING IN WSN
908.	FREQUENCY AGILITY IN RF6 WIRELESS NETWORKS
909.	FUGITIVE CRIMINAL ALERT SYSTEM
910.	FUNDAMENTAL STRUCTURE OF LINUX KERNEL BASED DEVICE DRIVER AND IMPLEMENTATION ON LINUX HOST MACHINE
911.	GAMING SOFTWARE FOR THREE DIMENSIONAL WARFARE
912.	GATEWAY SECURITY AND DATA SECURITY IN SAP
913.	GAURAV SHARMA
914.	GDPR COMPLIANCE FOR DATA ARCHIVING
915.	GENDER IDENTIFICATION FROM FACIAL PHOTOGRAPHS
916.	GENERIC FILE VIEWER
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232.	OPTIMIZATION OF PRODUCTION SEQUENCE USING GENETIC ALGORITHM
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273.	PREDICTING CUSTOMER CHURN IN B2B WITH THE AID OF MACHINE LEARNING APPROACH
274.	PREDICTING PERFORMANCE AND ATTRITION BY MULTIPLE ALGORITHM ENSEMBLE (HR ANALYTICS)
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281.	PREDICTION APPLICATION THAT EMPLOYS MICRO SERVICE AND CLOUD NATIVE ARCHITECTURES
282.	PREDICTION FOR INSURANCE CLIENT
283.	PREDICTION OF BOOK SALES USING SENTIMENT ANALYSIS OF SOCIAL MEDIA
284.	PREDICTION OF CRITICAL SCA VIOLATIONS
285.	PREDICTION OF CUSTOMER BEHAVIOR IN A RETAIL SHOP
286.	PREDICTION OF HOT METAL PRODUCTION AT BLAST FURNACE AND CONSEQUENTLY STEEL ORDER PROCESSING IN BHILAI STEEL PLANT, INDIA USING OPTIMUM NEURAL NETWORK
287.	PREDICTION OF INTRADAY NIFTY50 INDEX USING SVM AND NEURAL NETS
288.	PREDICTIVE ALGORITHM FOR STOCK MARKET
289.	PREDICTIVE ANALYSIS OF A PLAYERS POSSIBLE MOVES IN A CHESS GAME.
290.	PREDICTIVE ANALYSIS OF HEALTHCARE OUTCOMES THROUGH DATA MINING
291.	PREDICTIVE ANALYSIS OF PRINT JOB PROCESSING TIME AND PERFORMANCE ANALYSIS OF VECTOR ALGORITHMS.

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295.	PREDICTIVE ESCALATION USING DEEP LEARNING
296.	PREDICTIVE FAILURE MODELING FOR TEST AUTOMATION - A DEEP LEARNING APPROACH
297.	PREDICTIVE HEART DISEASE USING AI
298.	PREDICTIVE MAINTENANCE FOR AIRCRAFT SYSTEMS
299.	PREDICTIVE RESULT ANALYSIS OF TEST AUTOMATION USING ARTIFICIAL INTELLIGENCE
300.	PRESCRIPTIVE ANALYTICS FOR SKYNET'S BUSINESS: A CASE STUDY
301.	PRE-SILICON SOFTWARE TOOL FOR MOBILE PROTOCOL STACK VERIFICATION
302.	PREVENTING DISTRIBUTED DENIAL-OF-SERVICE FLOODING ATTACKS WITH DYNAMIC PATH IDENTIFIERS
303.	PRICE PREDICTION FOR RESALE MOBILE DEVICES
304.	PRICING PREDICTION INDICATOR SYSTEM
305.	PRINTERS AND FACTORY MONITORING AND CONTROL SYSTEM
306.	PRIVACY PROTECTION AND INTRUSION AVOIDANCE FOR CLOUDLET-BASED MEDICAL DATA SHARING
307.	PROACTIVE CORRECTION OF MISMATCHES BETWEEN CRM AND TALLYMAN
308.	PROACTIVE LTE CAPACITY FORECASTING USING MACHINE LEARNING MODELS AND ALGORITHMS
309.	PROCESS AUTOMATION FOR AD DEALERS NON MOVING INVENTORY DISPOSAL ON MAHINDRA E-COMMERCE PLATFORM (M2ALL.COM)
310.	PROCESS MANAGEMENT USING JBOSS JBPM
311.	PROCESS MONITORING USING MOBILE APP IN SEMICONDUCTOR MANUFACTURING
312.	PROCESS PLANT OPTIMIZATION USING DATA ANALYTICS
313.	PRODUCT CONFIGURATION IN SAP E-COMMERCE
314.	PRODUCT DEPLOYMENT AUTOMATION
315.	PRODUCT IMAGE DESCRIPTION MATCHING
316.	PRODUCT INFORMATION BOT
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318.	PRODUCTIVITY ANALYSIS TOOL
319.	PROGRESS MONITORING FOR TURNKEY PROJECTS
320.	PROJECT MANAGEMENT PRACTICE IN TECHNOLOGY STARTUPS
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322.	PROJECT STAFFING AND CO-SOURCING RECOMMENDATION PLATFORM
323.	PROOF OF CONCEPT FOR INTEROPERABILITY BETWEEN TWO APPLICATIONS IN AN AUTOMOTIVE ANDROID PLATFORM
324.	PROVIDE CUSTOMER DELIGHT BY IMPROVING PROCESS AND PRODUCT QUALITY USING STATISTICAL ANALYSIS OF FIELD DEFECTS.
325.	PROVIDE INSIGHTS ON EFFECTIVENESS OF EXISTING LOYALTY REWARDS PROGRAMS TO ENSURE EFFECTIVE CUSTOMER RETENTION.
326.	PROVIDER RECOMMENDER SYSTEM
327.	PROVIDING CLOUD SUPPORT TO SANDVINE TRAFFIC STEERING ENGINE
328.	PROVIDING IOT INTERFACES FOR UTILITY SECTOR THROUGH CISCO ROUTERS
329.	PROVIDING ONLINE CONTENT TO OFFLINE PEOPLE
330.	PROVISION OF OFFERS IN TELECOM
331.	PROVISIONING OF KUBENETES CLUSTER IN GCE & CONTAINER MANAGEMENT USING PUPPET
332.	PROVISIONING TELECOM SERVICES
333.	PROXIMITY BASED NOTIFICATION
334.	PUBLIC NEWS REPORTER
335.	PULSE SENSING APPLICATION
336.	PUNE INCOME TAX
337.	QUALITY ASSURANCE AND SOFTWARE TEST PLAN TEMPLATE
338.	R&D / ENGINEERING BUSINESS USING FUNCTIONAL SERVICES TRANSFORMATION OF NEXT GENERATION ENTERPRISE (SAP R/3 & R/4 HANA)
339.	RANDOM QUERY BASED REPRODUCIBLE TESTCASE GENERATION

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342.	REAL TIME APPLICATION INFRASTRUCTURE CAPACITY AND PERFORMANCE ANALYSIS
343.	REAL TIME EMOTION RECOGNITION FROM FACIAL IMAGES USING RASPBERRY PI
344.	REAL TIME FRAUD DETECTION IN PSD2
345.	REAL TIME LOG ANALYZER
346.	REAL TIME MULTIPLE FACE RECOGNITION
347.	REAL TIME OBJECT DETECTION & AUGMENTED REALITY
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349.	REAL TIME STATISTICAL PROCESS CONTROL
350.	REAL-TIME ANALYTICS FOR E-COMMERCE
351.	REAL-TIME FRAUD DETECTION
352.	REALTIME HARDWARE MONITORING IN SDDC USING CIM AND SNMP BASED ASYNC NOTIFICATIONS
353.	REAL-TIME RIVER WATER METRICS ANALYZING SYSTEM
354.	RECEPTIONIST MOBILE APP USING COREML
355.	RECOMMENDATION ENGINE FOR A CONTENT PROVIDER
356.	RECOMMENDATION ENGINE USING COLLABORATIVE FILTERING
357.	RECOMMENDATION SYSTEM FOR BIG DATA APPLICATIONS
358.	RECOMMENDER ENGINE FOR PRODUCTS
359.	RECOMMENDER SYSTEM FOR FOOD
360.	RECOMMENDER SYSTEM FOR TV AUDIENCE DATA SET
361.	RECOMMENDER SYSTEM IMPLEMENTAION FOR AVAILABLE PRODUCT WITH E-COMMERCE RETAILER AND EXPOSING DATA VIA REST CALL
362.	RECONFIGURABLE SMART WATER QUALITY MONITORING
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364.	REDFISH COMPLIANCE TOOL
365.	REDUCTION OF HUMAN ERROR IN MEDICAL DIAGNOSTICS
366.	REGRESSION MODELS FOR DELHI AIR POLLUTION
367.	REGRESSION TEST CASE OPTIMIZATION USING GENETIC ALGORITHM AND HISTORIC DATA
368.	REINFORCEMENT LEARNING BASED HYPER PARAMETERS TURNING FOR CONVOLUTIONAL NEURAL NETWORKS
369.	REINFORCEMENT LEARNING USING AUGMENTED REWARDS
370.	RELEVANCY RANKING SYSTEM FOR TOPIC AND CONTENT USING NLP
371.	RELIGIOUS MOBILE APP TO HELP THE COMMUNITY
372.	REMEDIAL SUGGESTIONS FOR BATCH JOB ABENDS BASED ON SIMILAR PAST INCIDENTS' RESOLUTIONS
373.	REMEDICATION TOOL FOR ANDROID APPLICATIONS
374.	REMOTE CONTROL, MONITORING AND DATA LOGGING FOR APPLIANCES IN HOME/OFFICE
375.	REMOTE MONITORING AND DIAGNOSTICS OF VEHICLE USING EMBEDDED WEBSERVER
376.	RESEARCH ON ANTI-SPOOF TECHNIQUES FOR LIVELINESS CHECK IN ID PROOFING
377.	RESIGNATION PREDICTOR USING SUPERVISED LEARNING
378.	RESOLVING MULTI-PARTY PRIVACY CONFLICTS IN SOCIAL MEDIA
379.	REST API TEST AUTOMATION FRAMEWORK FOR TALEO PUBLIC REST APIS
380.	RESTAURANT FINDER WITH SDL
381.	RESTAURANT RECOMMENDATION SYSTEM
382.	RETAIL FINANCE LENDING ON GROUP LOAN PORTFOLIO
383.	REUSABLE INTRUDER IDENTIFICATION MODULE FRAMEWORK SECURITY DEVICE
384.	RF DIRECTION FINDING SYSTEM USING COGNITIVE RADIO
385.	RICE YIELD PREDICTION USING DATA MINING TECHNIQUE
386.	RIDE MODE LAUNCHER
387.	RIGHT TO EDUCATION 25% RESERVATION
388.	ROAD TO NO-OPS: FROM TRADITIONAL TO SERVERLESS ARCHITECTURE

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390.	ROLE OF BIG DATA MODEL IN SECURITY ANALYTICS
391.	ROLE OF TECHNOLOGY (ICT) IN MAKING SMART CITIES
392.	RPA FOR GE INCIDENT REPORTING
393.	RUNTIME DEVELOPMENT CONFIGURATION AND MANAGEMENT SYSTEM FOR PARALLEL SOFTWARE DEPLOYMENT
394.	SABRE AGENCY AUTOMATION PLATFORM - SCHEDULE CHANGE PROCESSOR
395.	SAFE ACTUATION IN AUTOMOTIVE ECU'S
396.	SALES DRIVEN PROMOTION AND ASSORTMENT RECOMMENDATION SYSTEM
397.	SALES MANAGEMENT - REAL ESTATE SUITE (RELEASE OPEN SOURCE)
398.	SALES ORDER DATA MART
399.	SALES OVERDUE ANALYSIS BY PREDICTIVE MODELING
400.	SALESMAN - ANDROID APP FOR GOODS SALE INSIDE AN ORGANIZATION
401.	SAME DAY DELIVERY IMPROVING LOGISTICS AND SUPPLY CHAIN EFFICIENCY
402.	SAP EXTENDED WAREHOUSE MANAGEMENT
403.	SAP FIORI APP HANA TO ECC TRANSACTIONS
404.	SAP HANA MAP INTEGRATION WITH ROUTING AND INSIGHT PLANNING
405.	SAP NETWEAVER SYSTEMS MIGRATION AND CONSOLIDATION
406.	SAP-ERP PERFORMANCE AND OPTIMIZATION WITH HADOOP
407.	SAP-ERP PERFORMANCE AND STORAGE OPTIMIZATION WITH ORACLE 12C DATABASE
408.	SBC AUTOMATION
409.	SCALABILITY AND EFFECTIVENESS OF BGP IN GROWING INTERNET ARCHITECTURE
410.	SCALABLE SERVERLESS FAULT TOLERANT CLOUD ARCHITECTURE USING AMAZON WEB SERVICES (AWS)
411.	SDN ROUTING AS A SERVICE - OSPF
412.	SEARCH AND SORT LARGE UNSTRUCTURED DATA WITH PAGINATION IN NEAR REAL TIME
413.	SEARCH FEATURE PATTERNS IN SURFACE MESH MODELS
414.	SECURE AND EFFICIENT DATA ACCESS ON THE CLOUD COMPUTING
415.	SECURE AUTOMATION THROUGH IOT - AI & ROBOTICS
416.	SECURE CLOUD COMPUTING USING ENCRYPTION
417.	SECURE DESIGN OF IOT ENABLED CHARGING INFRASTRUCTURE OF ELECTRIC VEHICLES
418.	SECURE EMPLOYEES/CUSTOMERS ACCOUNT INFORMATION INTEGRATION
419.	SECURING APPLICATION AND DESKTOP VIRTUALIZATION WITH CITRIX XENAPP AND XENDESKTOP.
420.	SECURING APPLICATION WITH ACCESS MANAGER AND ENABLING DELEGATED AUTHORIZATION TO THIRD-PARTY VENDOR USING OAUTH
421.	SECURING ENTERPRISE LOCAL AND WIDE AREA NETWORK AT ORGANIZATION
422.	SECURING MOBILE BANKING TRANSACTION BY USING HARDWARE TOKEN AS SECOND FACTOR AUTHENTICATION
423.	SECURING RADIUS COMMUNICATION BY RADIUS OVER DTLS
424.	SECURITY FOR A REAL TIME OPERATING SYSTEMS ENVIRONMENT - VXWORKS
425.	SECURITY IDENTIFICATION SERVICE
426.	SECURITY IN AUTOMOTIVE COMMUNICATION
427.	SECURITY IN CONTINUOUS DELIVERY PIPELINE
428.	SECURITY IN INFOTAINMENT SYSTEM
429.	SECURITY SYSTEM
430.	SECURITY SYSTEM FOR AZURE VMS
431.	SEGREGATE AND EXTRACT COMMON, FREQUENTLY ACCESSED & TOP-RATED MEDIA CONTENT AMONG SOCIAL SITES.
432.	SELENIUM AUTOMATION FRAMEWORK
433.	SELF ACCUMULATE AND TRANSFER OF DATA IN WINDOWS
434.	SELF-DIRECTED UNIX USER MANAGEMENT
435.	SELF-HEALING CI/CD PIPELINES USING MACHINE LEARNING
436.	SELF-ORGANIZING NETWORKING (SON) WITH SOFT HANDOVER (SH) FOR MULTIMODAL VEHICLE MOBILE

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437.	SELF-SERVICE KNOWLEDGE MANAGEMENT PORTAL
438.	SEMANTIC IMAGE SEGMENTATION
439.	SEMANTIC REPRESENTATION AND VIDEO RETRIEVAL
440.	SEMI-AUTOMATION OF INVOICE POSTING AND REVERSING
441.	SENIOR SOFTWARE ENGINEER
442.	SENSITIVE DATA SANITIZATION USING BIG DATA
443.	SENSITIVE INFORMATION STORAGE USING BLOCKCHAIN
444.	SENSOR DATA INTEGRITY IMPLEMENTATION BASED DISTRIBUTED DEPLOYMENT ARCHITECTURE FOR EMISSION MONITORING SYSTEM
445.	SENTILYZE - A SENTIMENT ANALYSIS TOOL
446.	SENTIMENT ANALYSIS
447.	SENTIMENT ANALYSIS OF TWEETS
448.	SENTIMENT ANALYSIS OF TWITTER DATA
449.	SENTIMENT ANALYSIS OF TWITTER DATA USING TENSORFLOW
450.	SENTIMENT ANALYSIS ON NETX360 FEEDBACK DATA
451.	SENTIMENT ANALYSIS TO TWITTER FEED BASED ON MACHINE LEARNING TECHNIQUES
452.	SENTIMENTAL ABRIDGED VERSION OF FREE TEXT
453.	SEO ANALYZER TOOL
454.	SERVERLESS ARCHITECTURE, BENEFIT/NEGATIVE AND COMPARATIVE ANALYSIS OF VARIOUS CLOUD SERVICE PROVIDERS
455.	SERVERLESS COMPUTING USING AWS AND ALEXA
456.	SERVICE DESK TICKET MANAGEMENT
457.	SERVICE VIRTUALIZATION FOR SAAS BASED APPLICATION
458.	SESSION DELIVERY MANAGER
459.	SETTING UP OF CLOUD COMPUTING INFRASTRUCTURE USING EUCALYPTUS AND HYBRIDFOX
460.	SF CLOUD COMPARATOR
461.	SHARED FILE REQUEST SYSTEM
462.	SHARED KEY PRE-DISTRIBUTION IN WIRELESS SENSOR NETWORK USING COMBINATORIAL DESIGN
463.	SHIELD IOT CLOUD AND PREDICTION ENGINE
464.	SHIFT CONTROL OPTIMIZATION FOR AMT
465.	SHORT TERM STOCK MARKET TREND ANALYSIS BY SOCIAL MEDIA DATA MINING
466.	SIEREACH WEB BASED TICKETING SYSTEM
467.	SIGMIFY NEXTGEN
468.	SIGN LANGUAGE TRANSLATOR
469.	SIGNAL PROCESSING CHAIN IN LTE
470.	SIMPLIFIED HANDWRITTEN DIGIT DETECTION IN CHEQUE
471.	SIMPLIFIED INTEGRATION OF IOT DEVICES THROUGH THROUGH CLOUD COMPUTING
472.	SIMULATION MANAGER FOR WEB BASED NAVAL WARGAME
473.	SIMULATION OF BROKERAGE OPERATIONS IN A SECURITIES CLEARING FIRM
474.	SINGLE CUSTOMER VIEW IDENTIFICATION USING MATCH-LINK OPERATION
475.	SINGLE DATA REPOSITORY
476.	SKILLS-BASED PROFILE SEARCH APPLICATION
477.	SKIN LESION ANALYSIS TOWARDS MELANOMA DETECTION (DISEASE CLASSIFICATION) USING DEEP LEARNING
478.	SMART API BUDDY FOR STANDING UP MICROSERVICES WITH NO HASSLES
479.	SMART BANKING SYSTEM (SBM)
480.	SMART BUG TRIAGE USING DEEP LEARNING
481.	SMART CACHE FOR APPLICATION SYSTEM
482.	SMART CARE MONITORING AND TRACKING SOLUTION USING IOT
483.	SMART E COMMERCE RECOMMENDATION SYSTEM USING DATA MINING TECHNIQUES
484.	SMART HOME FRAGRANCE SYSTEM



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485.	SMART HOME SOLUTION POWERED BY OPEN HAB
486.	SMART HOME USING INTERNET
487.	SMART LAYOUT FOR IMAGE POST PROCESSING APPLICATIONS IN HEALTHCARE DOMAIN
488.	SMART LOG EXTRACTOR
489.	SMART MOBILE APP USING BLOCKCHAIN
490.	SMART ROAD AND TRANSPORTATION
491.	SMART TRANSPORTATION WITH INTERNET OF THINGS
492.	SMART TRAVEL SOLUTION
493.	SMART VIDEO PLAYER
494.	SMARTPHONE BASED OPTICAL CHARACTER RECOGNITION FOR INDIAN LANGUAGES
495.	SNMP TRAP SIMULATION AND ASSERTION
496.	SOCIAL NETWORK ANALYSIS IN ENTERPRISES USING TEXT MINING ON EMAIL CORPUS
497.	SOCIO-POLITICAL ANALYSIS
498.	SOFTWARE APPLICATION TEST AUTOMATION AND SECURITY ASSESSMENT
499.	SOFTWARE BASED PATTERN RECOGNITION
500.	SOFTWARE COMPONENT AND FUNCTIONS DEVELOPMENT FOR PLUGGED IN HYBRID ELECTRIC VEHICLE (PHEV) PLATFORM WITH MATLAB & SIMULINK
501.	SOFTWARE COST ESTIMATION USING ARTIFICIAL INTELLIGENCE METHODOLOGIES AND TECHNIQUES
502.	SOFTWARE DEBUGGER FOR SIMULINK AND MATLAB CODE GENERATION
503.	SOFTWARE DEFINED STORAGE
504.	SOFTWARE QUALITY DASHBOARD
505.	SOFTWARE QUALITY ENGINEERING BEST PRACTICES
506.	SOFTWARE QUALITY IMPROVEMENT MODEL: OPTIMIZE TEST COVERAGE FOR BUG FIXES AND DESIGN CHANGES
507.	SOFTWARE RISKS: MINING FREQUENT PATTERNS
508.	SOFTWARE TESTING & QUALITY ASSURANCE
509.	SOFTWARE TESTING AND QUALITY ASSURANCE
510.	SOFTWARE TESTING AND QUALITY ASSURANCE OF AUTOMATION OF NETWORK PLANNING AND DESIGN
511.	SOFTWARE TESTING IN AGILE PROJECTS- A CASE STUDY
512.	SOURCE CODE GENERATOR FOR AUTOMATION TEST SCRIPT TO VALIDATE NETWORK INFRASTRUCTURE (ACCESS POINT).
513.	SPARK LINEAGE
514.	SPECTRUM A GENERIC NEXTGEN SOLUTION FOR E-LEARNING
515.	SPEECH RECOGNITION USING NEURAL NETWORKS
516.	SPOT THE SPOTS
517.	SQL SERVER DATABASE MONITORING & REPORTING USING MICROSOFT BI TOOL (SSRS & SSIS)
518.	STATISTICS COLLECTION, REPORTING AND ANALYTICS FOR COPY DATA USING EMC APPSYNC
519.	STOCK MARKET FORECASTING USING MACHINE LEARNING
520.	STOCK MARKET PREDICTION
521.	STOCK MARKET PRICE PREDICTION USING ARTIFICIAL INTELLIGENCE FOR DOING SENTIMENT ANALYSIS ON STOCKS
522.	STOCK PREDICTION USING MACHINE LEARNING MODELS
523.	STOP CRIME IN TIME - DESIGNING PREDICTIVE SYSTEM USING HISTORIC CRIME AND SEMTIMENT DATA
524.	STRATEGIC BUSINESS COMMUNICATION.
525.	STRATEGY FOR OPTIMIZING THE CAD APPLICATIONS ACROSS FLOWSERVE
526.	STRUCTURING OF TRANSLATION MEMORY
527.	STUDY ANALYSIS AND APPLICATION OF EMBEDDED INTERNET OF THING AND CLOUDING TECHNIQUE FOR WATER APPLICATION
528.	STUDY AND IMPLEMENTATION OF COLLABORATIVE FILTERING RECOMMENDER SYSTEMS TO IMPROVE USER ENGAGEMENT
529.	STUDY DOCUMENT ON MIGRATION OF EXISTING SINGLE SERVER CENTRIC DATABASE OF NIELIT STUDENT PORTAL TO A SECURED DISTRIBUTED ENVIRONMENT AND IDENTIFYING THE CHALLENGES THEREIN
530.	STUDY OF DIFFERENT SCHEDULING ALGORITHMS FOR CARTOGRAPHIC SATELLITES IN LOW EARTH

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	ORBITS AND A SMS BASED ALERT SYSTEM (SBAS) FOR FLIGHT DYNAMICS DATA (FDD) OF THESE SATELLITES
531.	STUDY OF KUBERNETES AND BLUE/GREEN DEPLOYMENT USING KUBERNETES
532.	STUDY ON CURRENT GENERATION WEB APPLICATION DEVELOPMENT FRAMEWORKS AND THEIR USE CASE ANALYSIS
533.	STUDYING ADOPTION TRENDS OF O365 WORKLOADS IN AN ORGANIZATION
534.	STYLESHEET VALIDATOR PLUGIN
535.	SUBSCRIPTION ATTRITION MODEL IN MEDIA
536.	SUPPLANTER RECONCILIATION
537.	SUPPORT CISCO QOS 2.0 IN HP NNMI QA ISPI
538.	SUPPORTING OVER-THE-AIR UPDATES FOR RF24 BASED WIRELESS NODES
539.	SUPPORTING SIGNED CERTIFICATES FOR DATAPLANE AND CONTROL PLANE TRAFFIC ENCRYPTION IN CISCO NCS2000 OPTICAL TRANSPORT PLATFORMS
540.	SWIFTS (STANDARD WIRELINE INTEGRATED FORECASTING AND TRACKING SYSTEM)
541.	SYNDICATE BANK FLEXCUBE MAINTAINANCE
542.	SYSTEM AND METHOD FOR MANAGING UNLAWFUL PARKING OF VEHICLES
543.	SYSTEM METHOD TO LEARN IT APPLICATION AUTOMATION INSIGHTS
544.	SYSTEM UPGRADATION TO MICROSERVICES ARCHITECTURE
545.	TARGETED MARKETING ANALYTICS FOR CAMPAIGN MANAGEMENT
546.	TECHNICAL DISCUSSION FORUM FOR QUINTYPE
547.	TECHNICAL LEAD - SYSTEMS
548.	TELCO USER PREFERENCES SYSTEM
549.	TELECOM CHURN PREDICTION
550.	TELECOM MULTI-PROTOCOL PRODUCT FLOW VERIFICATION TOOL
551.	TELEMATICS APPLICATION WITH NETWORK SECURITY
552.	TELEMATICS DATABASE
553.	TEMPLATED NMS BUILD MANAGEMENT INFRASTRUCTURE PROVISIONING USING AWS.
554.	TES (ASN1) SWITCH INBOUND DATA PROCESSING
555.	TEST APPLICATION DESIGN FOR EMBEDDED SYSTEMS
556.	TEST AUTOMATION OF 6VE SOLUTION TRANSPORT OF IPV6 CUSTOMER TRAFFIC VIA IPV4 VPN
557.	TEST CASE PRIORITIZATION
558.	TEXT ANALYSIS
559.	TEXT ANALYSIS TO ODATA CALL WITH MACHINE LEARNING AND NATURAL LANGUAGE PROCESSING
560.	TEXT ANALYSIS(SENTIMENT) OF REVIEWS/COMMENTS TO PROVIDE RATINGS TO TV SERIES ON SOCIAL MEDIA
561.	TEXT ANALYZER AND EVALUATOR USING NATURAL LANGUAGE PROCESSING
562.	TEXT CLASSIFICATION USING COMPUTER VISION
563.	TEXT MINING ON FACEBOOK BRAND PAGE POSTS FOR SENTIMENT CLASSIFICATION
564.	TEXT SUMMARIZATION AND KNOWLEDGE EXTRACTION FOR KNOWLEDGE REPOSITORY
565.	TEXT SUMMARIZATION FOR FEEDBACK SYSTEMS
566.	TEXT SUMMARIZER - A DEEP LEARNING APPROACH
567.	THE APPLICATION OF SOFTWARE TESTING TECHNOLOGY ON SECURITY IN WEB APPLICATION SYSTEM
568.	THE METHODOLOGIES AND TECHNIQUES FOR THREAT OPERATIONS.
569.	THREAT EVALUATION USING AUTOMATION TO CHECK FALSE POSITIVE DURING DDOS ATTACK MITIGATION
570.	TIME SERIES ANALYSIS FOR SALES VOLUME PREDICTION
571.	TIME SHEET MANAGER
572.	TIME-SERIES ANALYSIS AND PREDICTION OF AIR POLLUTION PARAMETERS USING MACHINE LEARNING
573.	TIMING OVER PACKET-TOP(PHASE & FREQUENCY)SYNCHRONIZATION OVER PTP SOLUTION FOR LTE-4G ROLLOUT
574.	TO ANALYZE SALES DATA
575.	TO BUILD AN INTERACTIVE VOICE RESPONSE SYSTEM FOR THE INDIAN AIR FORCE EXCHANGE OPERATION

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576.	TOKENIZATION SERVICES TO SECURE DATA
577.	TOOL TO BENCHMARK THE PERFORMANCE QUOTIENT OF THE CLOUD INFRASTRUCTURE
578.	TOOL USAGE ANALYSIS
579.	TOOLS AND TECHNIQUES TO REDUCE SYSTEMATIC FAULTS FOR SAFETY CRITICAL SYSTEMS
580.	TOPIC DATA EXTRACTION BY WEB CRAWLER
581.	TRACK & TRACE (LOCATION ENGINE) - INSIDE FACTORY NAVIGATION
582.	TRACTOR AGGREGATION FOR FARMERS
583.	TRACTOR AGGREGATION FOR FARMERS
584.	TRADE TRENDZ
585.	TRADITIONAL PRE-BILL PROCESS IMPROVEMENT USING DATA WAREHOUSING ETL APPROACH
586.	TRAFFIC DENSITY ESTIMATION SYSTEM
587.	TRAFFIC ENGINEERING USING SEGMENT ROUTING
588.	TRAFFIC FLOW PREDICTION WITH BIG DATA A DEEP LEARNING APPROACH
589.	TRAFFIC OFFENCE DETECTION USING SUPERVISED LEARNING
590.	TRAFFIC SCHEDULING AND ROUTING IN VEHICULAR DELAY TOLERANT NETWORK
591.	TRANSACTION SCREENING AND ANALYSIS IN WHOLESALE BANKING
592.	TRANSACTIONS OF CUSTOMERS WITH MONGODB DATABASE
593.	TRANSITION OF TRADITIONAL SECURITY OPERATIONS CENTER TO NEXT GENERATION SECURITY OPERATION CENTRES (SOC) FROM MALWARE INCIDENT PERSPECTIVE
594.	TRENDING TOPICS IDENTIFICATION
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596.	TWITTER DATA ANALYSIS AND VISUALIZATION USING R
597.	TWITTER SENTIMENT ANALYSIS
598.	UBIQUITOUS ENERGY MANAGEMENT SYSTEM
599.	UNIFIED PORTAL FOR AUTOMATION TESTING
600.	UNIQUE IDENTIFIER KEY SERVER DEVELOPMENT
601.	USAGE OF PROGRAM SLICING PRINCIPLES AND CONTAINERIZATION TECHNOLOGY TO ENHANCE CONTINUOUS TESTING PRACTICES FOR AGILE WEB DEVELOPMENT TEAMS
602.	USB STORAGE DEVICE FORENSICS ON WINDOWS
603.	USE OF DATAWAREHOUSE AND MICROSOFT BUSINESS INTELLIGENCE TOOL TO TRANSFER DATA FROM DIFFERENCE SOURCES TO DATABASE FOR BUSINESS DECISIONS MAKING
604.	USE OF MACHINE LEARNING ALGORITHM FOR DIAGNOSTIC PLATFORM OF EMBEDDED SYSTEMS
605.	USER PROFILES FOR TUNER IN VEHICLE INFOTAINMENT SYSTEM
606.	USER PROFILING USING DEEP LEARNING FOR IMAGES
607.	USER SUBSCRIPTION MANAGEMENT FOR SECURITY BASED PRODUCT
608.	USER/IMSI ANOMALY DETECTION FROM BILLING RECORDS USING MACHINE LEARNING
609.	USING CHATBOTS AS A NATURAL LANGUAGE INTERFACE TO BUSINESS INTELLIGENCE SYSTEMS
610.	USING CLUSTERING WITH DATA STRUCTURES AND ALGORITHMS FOR FASTER FAILURE ANALYSIS
611.	USING DATA PREPROCESSING TECHNIQUES FOR AUTOMOTIVE APPLICATIONS
612.	USING DEEP LEARNING FOR AUTOMOTIVE VISION APPLICATIONS.
613.	VACATION FORECAST AND MANAGEMENT TOOL
614.	VACCINE REMINDER APPLICATION
615.	VALIDATION SYSTEM FOR REST AND THRIFTS APIS
616.	VAST (VORTEX ANTI-SKIMMING TECHNOLOGY) - SKIMMING DEVICE IDENTIFICATION IN ATM
617.	V-DASH (VERSATILE FINANCE DASHBOARD)
618.	VERIFICATION AND VALIDATION METHODS FOR AUTOMOTIVE EMBEDDED SYSTEMS.
619.	VIDEO STREAMING - FIELD OF VIEW CONTROL IN ACCORDANCE WITH CLIENT COMMANDS
620.	VIRTUAL ENTERPRISE CUSTOMER PREMISE EQUIPMENT (VE-CPE)
621.	VIRTUAL HEALTHCARE PRACTICE MANAGEMENT
622.	VIRTUAL MACHINE AND DATABASE FAILOVER
623.	VIRTUAL ROUTER ON CLOUD AND CONTINUOUS INTEGRATION OF BUILDS
624.	VIRTUALIZATION OF EVOLVED PACKET GATEWAY VEPG

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625.	VIRTUALIZATION TESTBED FOR SDN
626.	VISITOR MANAGEMENT SYSTEM USING SINGLE PAGE APPLICATION ARCHITECTURE
627.	VISUAL SEARCH AND IMAGE RECOGNITION USING DEEP NEURAL NETWORK
628.	VISUALIZATION SUGGESTION ENGINE FOR FINANCIAL DATA
629.	VISUALIZING SERVER TRENDS
630.	VITERBI DECODER FOR GNSS SIGNALS (IRNSS AND GAGAN)
631.	VOLUME FORECASTING PERFORMANCE MEASUREMENT AND MONITORING
632.	VSCODE EXTENSION TO ANALYZE APPLICATION STACK
633.	WAREHOUSE MANAGEMENT SYSTEM & ANALYTICS
634.	WATERSHED ANALYSIS
635.	WEARABLE ACTIVE HUMIDIFIER FOR DRY EYES
636.	WEATHER VIEW ANDROID APPLICATION
637.	WEB ANALYTICS IN DATAPLATFORM
638.	WEB APPLICATION FOR CAREER COUNSELLING
639.	WEB BASED MANAGEMENT APPLICATION TOOL FOR VIRTUAL FIREWALL DEVICES USING NETCONF PROTOCOL
640.	WEB BROWSER VULNERABILITY ASSESSMENT AND BROWSER DATA PROTECTION AGAINST MALICIOUS ACCESS
641.	WEB CONFERENCING SOLUTION TO PUBLISH AND SUBSCRIBE MULTIPLE LIVE AUDIO STREAMS ACROSS BROWSERS WITHOUT ANY PLUGIN.
642.	WEB SCRAPING AND ANALYSIS OF FINANCIAL INSTRUMENTS IN TRADING FOR BUILDING CUSTOMIZED REPORTS ENABLED BY FINANCIAL SERVICES DATA MART
643.	WEB SCRAPING FOR DATA MINING USING PYTHON
644.	WEB SERVICES REPOSITORY FOR EBUSINESS
645.	WEB TESTING USING SAHI AUTOMATION TOOL
646.	WEB USER INTERFACE- ANALYSIS (HEALTHCARE)
647.	WEBSITE EVALUATION USING OPINION MINING
648.	WELLNESS DATA GENERATOR
649.	WHAT CUISINE
650.	WIDE BAND ANTENNA FOR SOFTWARE DEFINED RADIO TO COVER BOTH UHF AND VHF FREQUENCY BANDS
651.	WIFI BASED SMART APPLIANCE CONTROL DEVICE
652.	WI-FI BASED SOLUTION TO PROVIDE CLOUD CONNECTIVITY FOR WIRED EMBEDDED DEVICES
653.	WI-FI OVER PLUG AND PLAY MESH LINK.
654.	WIRELESS AND MOBILE NETWORKS FOR THE FUTURE BATTLEFIELD
655.	WIRELESS SENSOR NETWORKS USING ARM9
656.	WIZARD ENGINE: BUSINESS PROCESS AUTOMATION TOOL USING HTML5, JAVASCRIPT, ANGULARJS
657.	WORK LOAD PLACEMENT COST EVALUATION FOR MULTI/HYBRID CLOUD PLATFORM APPLICATIONS
658.	WORKDAY CLOUD ERP
659.	WORKFORCE SKILL ANALYTICS
660.	X-RAY FLUROSCOPY MACHINE DEFECT TRIAGING
661.	ZOMATO - KNOW YOUR RESTAURANT BETTER
<b>M.TECH. QUALITY MANAGEMENT</b>	
662.	A METHOD TO ENHANCE PREDICTION ACCURACY OF PROJECT SCHEDULES IN COMPLEX MEDICAL DEVICE DEVELOPMENT
663.	A STUDY ON THE IMPACT OF TEMPERATURE/WEATHER ON SPECIFIC GRAVITY OF LIGHT LIQUID PARAFFIN BULK STORAGE IN THE MIDDLE EAST.
664.	ACHIEVE COMPANY OBJECTIVE BY CONTROLLING RISK IN VARIOUS DEPARTMENT OBJECTIVE
665.	ADVANTAGE OF APPLYING CONCEPT OF CONCURRENT ENGINEERING IN CIVIL ENGINEERING PROJECTS
666.	ALIGNING SOFTWARE DEVELOPMENT PROCESS W.R.T IATF 16949:2016
667.	ANALYSIS OF CENTER PERSPEX CRACKS IN MI SERIES HELICOPTER
668.	ANALYSIS OF DELAY CAUSES IN POWER DISTRIBUTION PROJECTS
669.	ANALYSIS OF ENGINE DRIVEN PUMP FAILURES IN D-30 KP2 AEROENGINES AND REDUCING ITS

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	FAILURES BY IMPROVING HYDRAULIC OIL QUALITY
670.	ANALYSIS OF FRACTURE CONNECTING ROD ASSEMBLY IN ENGINE
671.	ANALYSIS OF HIGH FAILURE RATE OF KU BAND SATCOM IN INDIAN AIR FORCE
672.	ANALYSIS OF SIMILARITIES AND DIFFERENCES IN PROJECT MANAGEMENT PRACTICES
673.	ANALYZING MAINTENANCE ERRORS AND VIOLATIONS IN MILITARY AVIATION
674.	ANALYZING RISK ASSESSING IMPACT AND AVERSION & MITIGATION PLAN FOR CONSTRUCTION AND INFRASTRUCTURE PROJECT
675.	ANALYZING THE IMPORTANCE OF PROJECT MANAGEMENT / PLAN FOR CIVIL CONSTRUCTION WORKS (ROADS AND BRIDGES)
676.	ANALYZING THE PROJECT DELAY CAUSES AND HOW PROJECT MANAGEMENT SKILLS PLAYS AN IMPORTANT ROLE TO COPE UP WITH DELAYS
677.	APPLICATION OF 7 QUALITY MANAGEMENT PRINCIPLES TO RISK MANAGEMENT OF FAST TRACK CONSTRUCTION PROJECT
678.	APPLICATION OF DEMING 14 POINT'S IN MAINTENANCE MANAGEMENT AT INDIAN AIR FORCE FIELD UNIT
679.	APPLICATION OF DESIGN FOR ASSEMBLY APPROACH FOR ROUTERS USED IN SERVICE PROVIDER NETWORKS
680.	APPLICATION OF DESIGN FOR MANUFACTURING AND ASSEMBLY (DFMA) IN SYSTEM SOFTWARE DEVELOPMENT
681.	APPLICATION OF PROJECT MANAGEMENT TECHNIQUES IN MINIMISING SERVICING TIME OF AIRCRAFT
682.	APPLYING VALUE STREAM MAPPING FOR DEVELOPING A LEAN HARDWARE PRODUCT DEVELOPMENT PROCESS
683.	ASPECTS OF LEADERSHIP AND MANAGING CHANGE TO ACHIEVE TOTAL QUALITY MANAGEMENT IN MILITARY AVIATION
684.	ASSURING QUALITY AND SPEED IN DEVOPS MODEL
685.	AUDITING A SOFTWARE PROJECT END TO END SDLC ON CMMI & ISO9K
686.	AUTOCAD ELECTRICAL DATA MANAGEMENT IN TEAMCENTER
687.	AUTOMATION TESTING FRAMEWORK FOR NETWORK DEVICE SOFTWARE
688.	AVOID CRACK IN CAM RETAINER USED IN SAFETY CRITICAL PART (BRAKE) OF A VEHICLE.
689.	CHANGE MANAGEMENT IN IMPLEMENTATION OF E-MAINTENANCE MANAGEMENT SYSTEM IN INDIAN AIR FORCE
690.	COMMISSIONING OF SEA WATER INTAKE FIRE WATER SYSTEM STARTUP
691.	COMPARISON AND EVALUATION OF PARTS DEVELOPED BY FDM, A RAPID PROTOTYPING TECHNOLOGY
692.	COMPENSATING CONTROL MECHANISM AND PROACTIVE RISK MANAGEMENT IN CONNECTED HEALTHCARE DEVICES
693.	CONTINUOUS IMPROVEMENT THROUGH KAIZEN METHODOLOGY IN WIRING HARNESS MANUFACTURING
694.	CONTINUAL IMPROVEMENT STRATEGY FOR CALIBRATION SERVICE
695.	CONTINUAL IMPROVEMENT THROUGH REDUCTION OF PAPER WASTAGE IN OFFSET PRINTING PRESS
696.	COST REDUCTION OF WIND TURBINE COMPONENTS BY VALUE ANALYSIS
697.	DATA QUALITY MANAGEMENT IN MIGRATING DATA FROM TRADITIONAL DATABASE TO HADOOP SYSTEM
698.	DEMAND SUPPLY MANAGEMENT IN DEFENCE PROCUREMENT
699.	DESIGN AND VALIDATION OF THERMAL SOLUTION FOR MULTI CAPACITY ENCRYPTION UNIT
700.	DESIGN REVIEW BASED ON FAILURE MODEL OF AXIAL
701.	DETAILED STUDY ON IMPACT OF RESOURCE, PRODUCTIVITY AND DIGITALIZATION IN CONSTRUCTION SCHEDULES AND BUDGET
702.	DEVELOPING PROCEDURE AND VALIDATION OF NEW RADIOGRAPHIC METHOD TO USE IN LIVE PLANT IN THE PROJECT
703.	DEVELOPMENT OF AN APPROPRIATE FUNCTIONAL STRATEGIES FOR IMPLEMENTATION OF NEW COUNTER MEASURE DISPENSATION STORES (CMDs) MANAGEMENT IN THE INDIAN AIR FORCE
704.	DUMMY LOAD TO AVOID UNDER LOAD RUNNING OF DIESEL GENERATING SETS IN INDIAN AIR FORCE
705.	EDGE- INTERNAL TOOL
706.	EFFECTIVE PROJECT TRANSITION THROUGH POST DEPLOYMENT DEFECT REDUCTION
707.	ELIMINATE THE QUALITY CONCERN OF WRONG TOOL KIT IN VEHICLES
708.	ENERGY EFFICIENCY AND RENEWABLE ENERGY
709.	ENERGY MANAGEMENT SYSTEM
710.	ENHANCEMENT OF INSTALLATION QUALITY IN POWER DISTRIBUTION PROJECTS BY RECORDING

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	QUALITY INCIDENTS IN REAL TIME APPS & ANALYZING THRO SQC TOOLS
711.	ENHANCEMENT OF QUALITY MANAGEMENT PRACTICE FOR DIGITAL TRANSFORMATION
712.	ENHANCEMENT OF QUALITY OF INTERNAL ROADS BY LAYING WHITETOP IN GATED COMMUNITIES
713.	ENHANCING CUSTOMER SATISFACTION THROUGH EFFECTIVE VERIFICATION OF ALL THE TEST CASES BY IMPROVING KNOWLEDGE MANAGEMENT
714.	ENHANCING NON-CONFORMITY MANAGEMENT PROCESS BY APPLYING PDCA CYCLE
715.	ENHANCING RELIABILITY OF AIRPLANE SYSTEMS BY APPLYING QMS AND TQM PRICIPLES
716.	ENSURING QUALITY IN DEFENCE ACQUISITION PROJECTS
717.	ESSENTIAL INGREDIENTS OF PROJECT MANAGEMENT
718.	EVALUATE AND BUILD A SUSTAINABLE GXP TRAINING PROGRAMME FOR IMPLEMENTATION AT ALL GLOBAL LOCATION WITH-IN THE ORGANIZATION.
719.	EVALUATION OF AGILE AND IMPLEMENTATION
720.	EVOLUTION OF SIM TO E-SIM PRODUCT DIVERSIFICATION AND ITS MARKET AND INDUSTRY IMPACT
721.	EVOLVING QUANTITATIVE METHODOLOGY FOR STANDARD AND COMPLIANCE SYSTEM IN INDIA
722.	EXPERIMENTAL DESIGN OF DESIGN PARAMETER INFLUENCE ON TYRE ENERGY LOSS
723.	FAI OPERATIONAL IMPROVEMENT AND TIME REDUCTION THROUGH EFFECTIVE PROJECT MANAGEMENT
724.	FAILURE MODE AND EFFECT ANALYSIS
725.	FARMER CARE SERVICE; A LONG TERM STRATEGY ADOPTED USING PROJECT MANAGEMENT & OPERATION MANAGEMENT AS TOOLS
726.	FELXIBLE PRODUCTION SETUP IN WIRING HARNESS
727.	FINTECH BUSINESS DRIVEN BY DEEP LEARNING
728.	FIXING THE BASIC OF SUPPLIERS
729.	FLEET MANAGEMENT IN IAF
730.	HALON REPLACEMENT FOR OFFSHORE FACILITIES
731.	IDENTIFICATION AND CONTROL OF WRONG ORIENTATION OF CAGE FITMENT IN DEEP GROOVE BALL BEARINGS USING QC TOOLS
732.	IDENTIFICATION OF KEY PROCESS PARAMETERS FOR POLY ETHYLENE TEREPHTHALATE PREPARATION AND THEIR IMPACT ON OPERATIONAL EFFCIENCY
733.	IDENTIFY TOP 5 CRITICAL ENGINEERING PROCESSES THROUGH SIPOC AND IMPROVE MOST CRITICAL PROCESS THROUGH VALUE STREAM MAPPING
734.	IMPACT OF QUALITY MANAGEMENT SYSTEM ON OIL AND GAS APPLICATION LINE PIPES MANUFACTURING
735.	IMPLEMENTATION OF AUTOMATION PROCEDURE FOR HANDLING OF DOCUMENTS
736.	IMPLEMENTATION OF CUMMINS QUALITY MANAGEMENT SOLUTION (CQMS) THROUGH DATA MANAGEMENT PROCESS
737.	IMPLEMENTATION OF DEVOPS IN A SOFTWARE DEVELOPMENT PROJECT
738.	IMPLEMENTATION OF HYBRID TEST ESTIMATION STRUCTURE IN THE ORGANIZATION
739.	IMPLEMENTATION OF ISO 9001:2015 QUALITY MANAGEMENT SYSTEM IN IMCC
740.	IMPLEMENTATION OF QUALITY CONTROL CIRCLES IN MANUFACTURING INDUSTRIES
741.	IMPLEMENTATION OF TQM PRINCIPLES IN AIRCRAFT MAINTENANCE: A CASE STUDY ON MILITARY AVAITION
742.	IMPLEMENTATION OF TQM TOOLS AND TECHNIQUES
743.	IMPLEMENTING CONTINUOUS PROCESS IMPROVEMENT PRACTICES IN THE APPLICATION DEVELOPMENT & MAINTENANCE PROJECTS IN INFORMATION TECHNOLOGY SECTOR
744.	IMPLEMENTING SAP SOLUTION MANAGER IN AGILE MODEL
745.	IMPORTANCE OF PROJECT MANAGEMENT TRIANGLE WHILE APPLYING PROJECT MANAGEMENT IN CONSTRUCTION PROJECTS
746.	IMPROVE ACED PAINT SHOP QUALITY BY TQM AND QMS PRINCIPLES
747.	IMPROVE SDF PERFORMANCE IN PANEL TO CURB OVERHEATING PROBLEM
748.	IMPROVEMENT OF MARKET QUALITY FOR HEADLAMP ASSEMBLY
749.	IMPROVEMENT OF PROCESS CAPABILITY BY OPTIMIZING PROCESS PARAMETER IN CHROME PLATING OF AERO-ENGINE BEARINGS.
750.	IMPROVEMENTS IN OEE BY IMPLEMENTAION OF TPM IN INDUSTRIES
751.	IMPROVING EFFICIENCY OF THE PORTABLE SOLAR ENERGY SYSTEMS USING STATISTICAL QUALITY CONTROL

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752.	IMPROVING RFT FOR THE MEXICO MARKET 90&100HP NEW MODELS
753.	IMPROVING THE AVAILABILITY OF PTM CRANES IN ALUMINIUM SMELTER
754.	IMPROVING THE TEST ACCEPTANCE RATE BY OPTIMIZATION OF TEST PARAMETERS
755.	INCOMING INSPECTION TIME REDUCTION BY ADOPTING LEAN TECHNIQUES
756.	INCREASE PERCENTAGE OF FIBER BALES CONTAINING MOISTURE WITHIN SPECIFICATION LIMIT (10%-12%) FROM 59% TO 75%.
757.	INCREASING HORN LIFE TIME BASED ON DESIGN MODIFICATIONS
758.	INCREASING PRODUCTIVITY OF THE MOULDED PARTS WITHOUT AFFECTING THE SAFETY AND PERFORMANCE OF THE MEDICAL DEVICE
759.	INNOVATION AND IMPLEMENTATION OF WORLD CLASS OPERATIONAL MANAGEMENT
760.	INTRODUCTION OF BODY SIDE OUTER PANEL CUT PARTS FOR SERVICE REQUIRMENTS
761.	INVENTORY COST REDUCTION BY INCREASING PUSHOUT SUCCESS RATE
762.	INVESTIGATING THE RELATIONSHIP BETWEEN EMPLOYEE ENGAGEMENT AND TEAMWORK QUALITY WITH RESPECT TO AGILE SOFTWARE DEVELOPMENT TEAMS
763.	INVESTIGATIONS FOR PRODUCTIVITY IMPROVEMENT BY REDUCING SEAL FITMENT ISSUES IN DEEP GROOVE BALL BEARINGS
764.	KAUTILYA'S ARTHASHASTRA : CUE FOR THE LEADERSHIP OF THE INDIAN ARMED FORCES
765.	LABELING AND PACKAGING ERROR
766.	LEADERSHIP IN DEFENCE FORCES
767.	LEAN MANAGEMENT IN DEPARTMENTAL STORES
768.	LEGAL CHALLENGES AND CHANGING ROLL OF HUMAN RESOURCE MANAGERS
769.	LEVERAGING SCALED AGILE FRAMEWORK TO IMPROVE QUALITY AND PRODUCTIVITY
770.	MACHINE LEARNING DRIVEN SOFTWARE QUALITY MANAGEMENT IN BIG DATA PRODUCT
771.	MAINTAIN MACHINERY THROUGH QMS
772.	MANAGEMENT OF CLAIMS AND DISPUTES IN CONSTRUCTION CONTRACTS
773.	MANUFACTURING PROCESS IMPROVEMENT OF SUPER DUPLEX STAINLESS STEEL FITTINGS USING ROOT CAUSE ANALYSIS
774.	MEASUREMENT SYSTEM ANALYSIS OF ROCKWELL HARDNESS AND IMPACT STRENGTH AS PER AIAG MANUAL
775.	MILITARY LEVEL QMS FOR DEFENCE EQUIPMENT MANUFACTURED IN INDIA UNDER MAKE IN INDIA.
776.	MINIMIZING OCCURRENCE OF FAILURE OF NEEDLE BEARING OF CARDING MACHINE FEED ROLLER UNIT
777.	NEW PRODUCT QUALITY VALIDATION
778.	OPTIMAL BENEFIT EXTRACTION FROM MEDITATION BY STANDARDIZING ITS PROCESS
779.	OPTIMISATION OF CALL DROPS FOR QUALITY IN PROVISION OF COMMUNICATION BY AIR DEFENSE BRIGADE SIGNAL COMPANY USING QI TOOLS
780.	OPTIMISATION OF SEMI AUTOMATIC TIG WELDING PROCESS FOR SURFACE QUALITY THROUGH TAGUCHI METHOD
781.	OPTIMISING PROCESS FOR ENHANCED CUSTOMER SATISFACTION
782.	OPTIMIZATION OF PROCESS PARAMETERS FOR ACHIEVEMENT OF STABLE/ PREDICTABLE GROWTH PATTERN FOR INTERNAL SPLINES OF SPUR GEAR DURING HEAT TREATMENT.
783.	OPTIMIZING THE LYRIC MOBILE APPLICATION TESTING BY APPLYING DOE
784.	PDCA 7 -STEP FOR PRODUCT COST REDUCTION
785.	PDSA IMPROVEMENT IN MAINTENANCE MANAGEMENT OF COMMUNICATION SYSTEM IN IAF
786.	PERFORMANCE APPRAISAL AT ASSOCIATED ENGINEERING SERVICES
787.	PIPELINE WELDING PROCESS IMPROVEMENT BY ROOT CAUSE ANALYSIS
788.	PROCESS CAPABILITY STUDY FOR MECHANICAL ENGINEERING STRESS ANALYSIS
789.	PROCESS IMPROVEMENT PCB DESIGN
790.	PROCESS OPTIMIZATION OF CASE CARBURIZING: ADOPTION OF ENDO GAS METHOD IN AVIATION INDUSTRY
791.	PRODUCT QUALITY ASSESSMENT AND IMPROVEMENTS IN BORED CAST IN SITU PILING WORKS
792.	PRODUCTION WELDING FAILURE ANALYSIS AND IDENTIFY ITS PROCESS IMPROVEMENT ACTIONS (STATISTICAL QUALITY CONTROL)
793.	PRODUCTIVITY IMPROVEMENT IN ABRADABLE PLASMA COATING OF SUKHOI-30 AIRCRAFT ENGINE COMPRESSOR CASING USING STATISTICAL QUALITY CONTROL TOOLS AND DESIGN OF EXPERIMENT.
794.	PROJECT MANAGEMENT

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795.	PROJECT MANAGEMENT AT 400KV AND 200KV UNDERGROUND TRANSMISSION LINE OF WBSETCL FOR BPAL WEST BENGAL
796.	PROJECT MANAGEMENT OF SOLAR POWER PLANT WITH QUALITY CHECKS FOR IMPROVING THE PERFORMANCE OF PLANT.
797.	PROJECT MANAGEMENT USING RISK ANALYSIS
798.	PSEUDO-INVERSE COMPUTING FOR EXTREME LEARNING MACHINE
799.	QUALITY ASSURANCE OF AUTOMOTIVE SOFTWARE
800.	QUALITY CONTROL IN CONSTRUCTION WORK (RCC RETAINING WALL ON PILE FOUNDATION FOR PREVENTION OF SOIL EROSION FROM NATURAL CHOE)
801.	QUALITY COST OPTIMIZATION BY USING FUNCTIONAL GAUGES AND CMMS
802.	QUALITY IMPROVEMENT IN DELIVERY CONDITION
803.	QUALITY MANAGEMENT SYSTEM DEPLOYMENT IN PROJECT AND SERVICE INDUSTRY
804.	QUANTITATIVELY MANAGING THE MANAGED MASTER SERVICE AGREEMENT(MMSA) USING QUALITY AND PROCESS PERFORMANCE OBJECTIVES
805.	RAIL SYSTEM RELIABILITY THROUGH QUALITY ASSURANCE
806.	RAMS ANALYSIS OF MECHANICAL SYSTEM
807.	REAL TIME TRACKING OF TEST EXECUTION AND DEFECTS USING POWER BI
808.	REDUCE TURN AROUND TIME FOR DELIVERABLES IN SAFRAN LANDING SYSTEM ACTIVITY
809.	REDUCING DEFECTS IN PRODUCTION WELDS OF BOILERS AND PRESSURE VESSELS
810.	REDUCING SEVEN WASTES IN SOFTWARE DEVELOPMENT AND AGILE BY USING LEAN
811.	REDUCTION IN FALLOUT OF MIG WELDING PROCESS
812.	REDUCTION IN REWORK OF CONTOUR IN ICY STAGE OF AIRBUS SA FORWARD PASSENGER DOOR
813.	REDUCTION OF RUBBER COMPOUND WASTAGE IN PREPARATORY STAGE OF TIRE MANUFACTURING PROCESS
814.	REDUCTION OF SHRINKAGE DEFECT IN CASTINGS
815.	REFINEMENT OF ABNORMAL NOISE IN AIR CONDITIONING SYSTEM IN PASSENGER CAR
816.	REJECTION CONTROL OF BLANK DIA (PRE-ROLL DIA) OF FASTENERS: USING SIX SIGMA METHOD
817.	REJECTION MINIMIZATION AT CLIENTS END IN QUALITY ASSESSMENT AUDITS
818.	RELIABILITY ANALYSIS OF AIRCRAFT WHEEL AND BRAKE SYSTEM TO SUPPORT THE SAFETY ASSESSMENT
819.	RELIABILITY ANALYSIS OF WELDING POSITIONS
820.	RELIABILITY ENHANCEMENT IN TURBINE/BOILER COMPONENTS USING SQC/NDT TECHNIQUES AND DEPLOYMENT OF WEB BASED SYSTEM
821.	RELIABILITY IMPROVEMENT IN PC MODEL CYLINDERS
822.	RELIABILITY PREDICTION AND FMEA OF ELECTRONIC CONTROLLER FOR LIFE SUPPORT SYSTEM
823.	RELIABILITY, AVAILABILITY AND MAINTAINABILITY STUDY OF IAFS HELICOPTER FLEET
824.	RESCHEDULING OF PREVENTIVE MAINTENANCE SCHEDULE OF RADAR SYSTEM BY APPLYING PROJECT MANAGEMENT TOOLS
825.	RESOLVING QUALITY ISSUE IN RACK AND PINION STEERING GEAR
826.	RESOURCES BASED APPROACH OF ORGANIZATION ANALYSIS IN PROTECTION OF RAILWAY OPERATION PROJECTS
827.	RFID TOOL CRIB SYSTEM
828.	RIG EQUIPMENT INTEGRITY INSPECTION & TRACEABILITY PROGRAM
829.	ROOT CAUSE ANALYSIS USING FISH BONE DIAGRAM AS TQM TOOL FOR A SPECTACLE BLIND FAILURE IN OIL AND GAS PLANT
830.	SECURITY ORIENTATION COURSE FOR OFFICERS IN INDIAN AIR FORCE.
831.	SELECTION & PERFORMANCES OF THE WATER PROOFING SYSTEM IN TODAYS MODERN BUILDINGS
832.	SELECTION & PERFORMANCES OF THE WATER PROOFING SYSTEM IN TODAY'S MODERN BUILDINGS
833.	SIMULATION OF TYRE FAILURE BY EXPERIMENTAL DESIGN
834.	SLIPFORM TECHNIQUE TO CONSTRUCT THE BOX TYPE ABUTMENT AND PIER AT TAPERED WALL PIER BRIDGE
835.	STAMPING AND LABELING ERROR
836.	STATISTICAL ANALYSIS AND CONTROL FOR RAW MATERIAL INCOMING INSPECTION
837.	STATISTICAL APPROACH TO OPTIMIZE PRODUCTIVITY OF 100 T DUMP TRUCKS IN HIGHLY MECHANIZED OPEN CAST MINING OPERATION



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838.	STATISTICAL QUALITY MANAGEMENT IN ENSURING THE CALIBRATION RESULTS AND ACCURACY OF REFERENCE STANDARDS.
839.	STEEL SCRAP REDUCTION DUE TO MATERIAL FOLD IN CALENDERING PROCESS
840.	STRUCTURE AND FUNCTION OF TQM TECHNIQUES IN THE PHARMACEUTICAL INDUSTRY.
841.	STUDY AND ANALYZE ELECTRONIC QUALITY ASSURANCE ACTIVITY IN DGQA, MOD FOR SPEEDY DEFENSE PROCUREMENT
842.	STUDY OF DIFFERENT QUALITY MANAGEMENT SYSTEMS INTEGRATED TO SINGLE PROJECT SPECIFIC REQUIREMENT
843.	STUDY OF GACO SEAL LEAK IN VIPER MK 22-8 AEROENGINE
844.	STUDY OF HYDRAULIC FAILURES OF C-17 GLOBEMATER AIRCRAFT
845.	STUDY OF OIL SEAL LEAK IN MICRO TURBINE ENGINE OF ADOUR MK 811 AEROENGINE
846.	STUDY ON HIGH FAILURE RATE AND REJECTION OF TURBOSTARTER AT THE CUSTOMER END AND MITIGATION OF THE SAME WITH CORRECTIVE AND PREVENTIVE MEASURES
847.	SUPPLIER QUALITY IMPROVEMENT THROUGH QUALITY MANAGEMENT TOOLS (SQM TOOLS)
848.	SURVEILLANCE OF POWER PLANT COMPONENTS AND DECISION ANALYSIS
849.	SURVEY AND ASSESSMENT OF CIVIL FACILITIES AT PIPELINES
850.	SUSTAINABLE DEVELOPMENT THROUGH QUALITY IN ENGINEERING EDUCATION
851.	THE ANALYSIS OF FAILURE TMC OF AUTOMOTIVE BREAK WITH POTENTIAL THREAT OF LOSS OF LIVES AND PROPERTY, USING SYNTHETIC AND STRUCTURED PROBLEM SOLVING METHODOLOGY
852.	THE IMPACT OF PERSONALITY ON STRATEGIC MANAGEMENT
853.	TO IMPROVE THE PRESENT METHODOLOGY OF IDENTIFYING, MONITORING & CONTROL OF SPECIAL CHARACTERISTICS OF AUTOMOTIVE PRODUCTS
854.	TO REDUCE REJECTION IN BALL BEARING COMPONENTS
855.	TOTAL COST OF OWNERSHIP (TCO)-TOOL FOR STRATEGIC SUPPLIER SELECTION
856.	TOTAL QUALITY MANAGEMENT
857.	TOTAL QUALITY MANAGEMENT ON TRAINING IMPARTED TO DEFENCE RECRUITS
858.	TOTAL QUALITY MANAGEMENT THROUGH LEADERSHIP IN EDUCATIONAL ORGANISATION
859.	TRANSFORMING INDUSTRY THROUGH BUSINESS EXCELLENCE
860.	VARIABILITY REDUCTION IN NICKEL CADMIUM ELECTRO-PLATING PROCESS AND IMPROVING PRODUCTIVITY OF AERO-ENGINE COMPRESSOR ROTOR BLADES
861.	WELDING IMPROVEMENT ON STEAM TRAP
862.	WELDING PROCESSES AND REPAIR CONTROL METHODS IN OIL AND GAS PROJECTS
<b>M.TECH. MANUFACTURING MANAGEMENT</b>	
863.	28P ELECTRICAL CONNECTOR FOR SHUNTING APPLICATION
864.	30% PRODUCTIVITY IMPROVEMENT IN DISC BRAKE PAD USING VSM LEAN
865.	50% REJECTION RATE REDUCTION IN PLAIN RINGS OF DIESEL LINE
866.	50% REJECTION REDUCTION IN TCL PINS USING DESIGN OF EXPERIMENTS
867.	A CRITICAL STUDY OF DEVELOPMENT & MASS PRODUCTION OF HYDRAULIC ENGINE MOUNTS IN PASSENGER VEHICLES
868.	A PRODUCT DESIGN : DESIGN AND DEVELOPMENT OF AIR INTAKE SYSTEM
869.	A SIMPLE & EFFICIENT STRATEGIC MODEL TO REVOLUTIONIZE COLLEGIATE EDUCATION IN OMAN - MIX OF ICT, STEM, CACP AND VEC (VALUE-ETHICS-CULTURE) INTEGRATION
870.	A STRATEGIC FRAME WORK FOR NSMSS TO VENTURE OUTSIDE INDIA
871.	A STUDY ON IRRADIATED WELDING JOINTS IN ITER MATERIALS AND ITS EFFECTS ON FMEA ANALYSIS OF ITER COMPONENTS
872.	A STUDY ON THE IMPACT OF APPLICATION OF VARIOUS LEAN TECHNIQUES IN AN INDUSTRIAL CONSTRUCTION SITE OF A MAJOR CPSU
873.	A SUBSTITUTION FOR A LONG SHUTDOWN MAINTENANCE APPROACH ADOPTED BY A SOFT DRINKS MANUFACTURING PLANT.
874.	ACCELERATED PROTOTYPING IN PRODUCT DESIGN USING AUGMENTED REALITY
875.	ADDITIVE MANUFACTURING-NEW TRENDS APPLICATION AND COST ECONOMICS
876.	ADDRESSING THE FAILURE OF SECOND ROW SEAT DURING LUGGAGE RETENTION TEST DUE TO WELD CRACKS
877.	ADDRESSING THE INTERNAL AND EXTERNAL QUALITY ISSUE OF STRUT MANUFACTURING & ENHANCING OEE AT MODULE MANUFACTURING

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878.	AN EXPERIMENTAL STUDY OF FRICTION STIR WELDING ON AA6351 ALUMINIUM ALLOY
879.	ANALYSIS AND IMPROVEMENT OF PROJECT MANAGEMENT
880.	ANALYSIS AND RECTIFICATION OF OVERCURRENT CALCULATION FAULT OF DECENTRALIZED DRIVES
881.	ANALYSIS OF PARAMETRIC EFFECTS FOR CUTTING MULTI MATERIAL LAYERED COMPOSITE (MADE THROUGH FDM) USING AWJ MACHINING
882.	ANALYSIS OF UNCERTAINTIES IN LINEAR AND ANGULAR DIMENSIONS WITH VARIOUS MACHINE INTERFACES (CMM, MULTI-SENSOR, PORTABLE CMM, TRACKER) ON ASSEMBLY COMPONENTS.
883.	ANALYSIS THE PROPERTIES, FOR REPLACEMENT OF HOT FORGING YOKE BY COLD FORGING YOKE
884.	ANALYTICAL STUDY OF CHALLENGES FACE BY WOMEN EMPLOYEES-DUE TO ASSAULT IN WORKPLACE: A HUMAN RIGHT PERSPECTIVE
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919.	DESIGN OPTIMIZATION OF COOLING PACKAGES MOUNTING ON TRUCKS
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921.	DESIGN SOLUTION IMPLEMENTATION FOR HEAVY DUTY TRUCK FRONT SUSPENSION LOAD COMPENSATING BAR FIELD FAILURES IN MINING SECTOR VEHICLES
922.	DESIGN, ANALYSIS AND MANUFACTURING OF FIXTURES FOR AEROSPACE COMPONENT
923.	DESIGN, DEVELOPMENT AND EVALUATION OF COLD MASS SUPPORT FOR LIQUID HELIUM CRYOSTAT
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925.	DESIGN, STRUCTURAL ANALYSIS AND MFG OF SPECIAL HR HYDRAULIC PRESSING UNIT FOR AXLE HOUSING AND AXLE TUBE
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928.	DEVELOPING NEW ENGINEERING TECHNIQUES AND METHODS FOR NON-DESTRUCTIVE ROAD CROSSING (NDRC) OF MULTIPLE FUEL AND UTILITY PIPELINES
929.	DEVELOPMENT OF DIGITAL FOOT BRAKE VALVE (DFBV) PERFORMANCE TEST FACILITY
930.	DEVELOPMENT OF INSULATION PAD FOR VEHICLE BATTERY WITH VALUE ENGINEERING
931.	DEVELOPMENT OF NEW PRODUCTS
932.	DEVELOPMENT OF POLYURETHANE WHEELS FOR MATERIAL HANDLING EQUIPMENT
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934.	DEVELOPMENT OF STRAIN RELIEF MESH CONNECTOR
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936.	EFFECTIVE SUPPLY CHAIN FOR PROFITABILITY OF AEROSPACE DEFENSE SECTION
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954.	EVALUATION OF MECHANICAL AND WEAR PROPERTIES OF ZIRCONIUM DIOXIDE AND GRAPHITE REINFORCED AL6061 METAL MATRIX COMPOSITE
955.	EXPLORING BUSINESS OPPORTUNITIES IN PASTE BACKFILL PLANT IN THE CONTEXT OF MINING
956.	FABRICATION OF TEST RIG FOR OVERSPEED TRIP VALVE
957.	FEASIBILITY STUDY FOR 80TPH VERTICAL ROLLER MILL CEMENT GRINDING PROJECT IN STAR CEMENT CLINKERIZATION PLANT, RAS AL KHAIMAH
958.	FINITE ELEMENT ANALYSIS OF SINGLE SHEAR FASTENER JOINT WITH AND WITHOUT SHIM
959.	FLEXIBLE ELECTROMECHANICAL AUTOMATIC INSPECTION EQUIPMENT FOR STARTER MOTOR CUSTOMER MOUNTINGS
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961.	FLOW TIME IMPROVEMENT FOR MILLING CUTTER BODIES
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965.	GENERAL ELECTRICAL, HYDERABAD
966.	IDENTIFICATION & ELIMINATION OF THE BOTTLENECK IN THE VALUE STREAM BY SFMC APPROACH
967.	IMPACT OF DELAYS IN PROJECT
968.	IMPLEMENTATION OF LEAN MANUFACTURING
969.	IMPLEMENTATION OF TOTAL PRODUCTIVE MAINTENANCE (TPM) ON HITEC COS MACHINE
970.	IMPLEMENTATION OF VISUAL CONCEPT , 5S, BEFORE AND AFTER LEAD TO CHANGE IN EMPLOYEE BEHAVIOURS
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972.	IMPROVE PRODUCTIVITY OF HIGH VOLUME EXPORTS SEAT FRAMES IN ROBOTIC WELDING
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977.	IMPROVING PROCESS CAPABILITY OF VALVE GUIDE ID/OD RUNOUT PARAMETER>1.33 BY STATISTICAL PROCESS CONTROL AND PROCESS IMPROVEMENT
978.	IMPROVING PROCESS CYCLE EFFICIENCY THROUGH LEAN PRACTICES
979.	IMPROVING PRODUCTIVITY THROUGH VSM FOR CODELINE PRODUCTION LINE
980.	IMPROVING PROPYLENE YIELD IN DEPROPANISER COLUMN USING STATISTICAL PROCESS CONTROL TOOLS
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982.	IMPROVING RESOURCE UTILIZATION AND PRODUCTIVITY BY LEAN PRINCIPLES
983.	IMPROVISATION OF CABLE FRICTION AND FREE PLAY
984.	INDIA UNIQUE DEVELOPMENT OF ELECTRONIC SWITCHES
985.	INDUSTRIAL PROJECT MANAGEMENT FOR COST OPTIMISATION OF A VACUUM CIRCUIT BREAKER
986.	INDUSTRY 4.0 ADOPTION IN MANUFACTURING SECTOR
987.	INDUSTRY 4.0 AND ITS APPLICATIONS IN PLANT/SHIP BUILDING
988.	INDUSTRY OUTLOOK ON COMPOSITE REPAIRS
989.	IN-HOUSE MANUFACTURING OF COMPOSITE JAWS FOR HAND FORMING MACHINE
990.	INNOVATIVE TECHNIQUES OF PROGRAMMING AND HMI DEVELOPMENT IN INDUSTRIAL AIR COMPRESSORS
991.	INTELLIGENT APPROACH TO IMPROVE ENERGY EFFICIENCY, PRODUCTIVITY AND QUALITY OF CABINET FOAMING FIXTURE
992.	INTRODUCING HIGH PERFORMANCE & LOW COST BRAKE DISC INTO 2 WHEELER BRAKING SYSTEM
993.	INVENTORY CONTROL IN CENTRAL MAINT. STORES THROUGH SAP BASED AUTO-ORDERING SYSTEM
994.	INVENTORY FORECASTING MODEL AND PROCUREMENT INPUTS
995.	INVENTORY MANAGEMENT: SUPPLY CHAIN STRATEGY
996.	INVESTIGATION AND ANALYSIS OF DISTORTION IN MANUFACTURE OF AIRCRAFT STRUCTURAL COMPONENTS.
997.	INVESTIGATION OF MECHANICAL AND TRIBOLOGICAL PROPERTIES OF ZIRCONIUM DIOXIDE AND BORON NITRIDE REINFORCED AL2024 METAL MATRIX COMPOSITE
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999.	KAIZEN AND NEW PRODUCT DEVELOPEMENT
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001.	LATCHLESS GLOVEBOX
002.	LCA APPROACH TO QUANTIFY ENVIRONMENTAL IMPACT OF CHLORINE AND CHLORINE DI OXIDE IN COOLING WATER TREATMENT
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009.	LEAN PRACTICES IN SUPPLY CHAIN MANAGEMENT TO ACHIEVE COST LEADERSHIP
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011.	LINE BALANCING BY LEAN MANAGEMENT
012.	LINE BALANCING IMPROVEMENT BY INTEGRATING ENDOSCOPE WITH SCREWING PROCESS IN FDB LINE
013.	LOGISTIC & PACKAGING OPTIMIZATION
014.	MANAGAING EGO
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016.	MANAGING SUPPLIER QUALITY AND PRODUCTIVITY
017.	MANUFACTURING AND MANAGEMENT OPTIMIZATION OF PRODUCTION AND PROCESSES INVOLVED IN THE JOINERY INDUSTRY
018.	MATERIAL RESOURCE PLANNING IN ERP SYSTEM
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021.	MES AT VAB UNIT OF VEDATNTA SESA IRON ORE BUSINESS.
022.	METHOD IMPROVEMENT FOR ASSEMBLY (MILL CENTRAL ASSY OF COLD ROLLING MILL)
023.	METHODOLOGY AND APPLICATION OF PROTECTIVE COATING / PAINTING SYSTEM ON LETHAL AND SOUR SERVICE PRESSURE VESSELS TO PREVENT CORROSION IN THE OIL AND GAS INDUSTRY
024.	NEW PRODUCT DEVELOPMENT
025.	NEW PRODUCT DEVELOPMENT - SLURRY PUMP
026.	NEW PRODUCT INTRODUCTION IN THE PHARMACEUTICAL INDUSTRY
027.	OIL & GAS CONSTRUCTION PROJECT MANAGEMENT THROUGH EARNED VALUE MANAGEMENT SYSTEM
028.	OPERATION EXCELLENCE IN MANUFACTURING
029.	OPTIMAL DESIGN AND ANALYSIS OF SHAFT
030.	OPTIMIZATION OF BRACKET USING IN AVIONICS INSTRUMENTS.
031.	OPTIMIZATION OF PROCESS PARAMETERS OF TURNED PARTS BY EXPERIMENTATION
032.	OPTIMIZATION OF ROUTING PROCESS FOR AIR CRAFT SHEET METAL COMPONENTS
033.	OPTIMIZATION OF TH SLING TO INSTALL AEROSPACE COMPONENTS
034.	OPTIMIZATION OF THE LOGISTIC FLOW BY VALUE STREAM MAPPING
035.	OPTIMIZATION OF WORK LOAD BY LINE BALANCING
036.	OPTIMIZE THE RESULTS TO ELIMINATE WASTES THROUGH VALUE STREAM MAPPING IN TWO WHEELER SHOCK ABSORBER ASSEMBLY LINE
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038.	PERFORMACE ANALYSIS AND PRODUCTIVITY IMPROVEMENT OF REBAR ROLLING MILL
039.	PERFORMANCE ANALYSIS OF DRY SLIDING WEAR BEHAVIOUR ON HYBRID ALUMINIUM METAL MATRIX COMPOSITE
040.	PERFORMANCE APPRAISAL AT CYIENT HYDERABAD
041.	PERFORMANCE ENHANCEMENT STUDY OF AL-ZOUD (YACHT)
042.	PLANT MAINTENANCE PROCESS LINES
043.	PNEUMATIC ENERGY MANAGEMENT SYSTEM
044.	POUR IN PLACE (PIP) HEADREST FOR PASSANGER CARS
045.	POWER METERING SEMI AUTOMATED LINE-CAPACITY ENHANCEMENT TO MEET CUSTOMER DEMAND WITH TTM
046.	POWER STEERING SYSTEM FOR 8X8 WHEEL DRIVE
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054.	PRODUCTIVITY ENHANCEMENT IN WELDING PROCESS BY IN HOUSE AUTOMATION
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057.	PRODUCTIVITY IMPROVEMENT IN ATMO MAKE HYDRO EROSION LINES FOR VALVE PIECE OF CRI 1-14 FAMILY
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061.	PRODUCTIVITY IMPROVEMENT OF TIRE UNIFORMITY MEASUREMENT MACHINE
062.	PRODUCTIVITY IMPROVEMENT THROUGH REDUCTION IN REWORK & REJECTION, REDUCING DOWNTIME & IMPLIMENTING STATISTICAL PROCESS TECHNIQUES
063.	PROGRESSIVE SERVICING IN CHETAK/ CHEETAH HELICOPTERS IN INDIAN AIR FORCE
064.	PROJECT LIFE-CYCLE ASSESSMENT OF CONSTRUCTION OF ESP UNIT IN A POWER PLANT
065.	PROJECT MANAGEMENT APPROACH IN PRODUCT LIFE CYCLE FOR A MANUFACTURING INDUSTRY
066.	PROJECT MANAGEMENT- DEVELOPING A STREAMLINED WORKFLOW FOR MATERIAL OF CONCERN
067.	PROJECT MANAGEMENT OF AERO STRUCTURE JIG DESIGN AND MANUFACTURING
068.	PROJECT MANAGEMENT- THE ARMED FORCES WAY
069.	PROPERTY OPTIMIZATION IN NATURAL FIBER THERMOPLASTIC POLYMER BASED COMPOSITES. MECHANICAL, THERMAL, CHEMICAL AND PERFORMANCE CHARACTERIZATION
070.	PROPULSION SYSTEM FOR MICROSATELLITES
071.	PUMP TEST LOOP DESIGN OF TRANSFERRED PRODUCT
072.	QUALITY AND YIELD RATE IMPROVEMENT OF CUS STAGE COMMAND GAS ISOLATION VALVE MAINBODY SUB ASSEMBLY OF GSLV MKII
073.	RADIAL TIRES BELT PACKAGE OPTIMIZATION USING NUMERICAL METHODS AND STATISTICAL TOOLS
074.	RAMS STUDY OF TRACKED VEHICLES AND SUGGEST MEASURES TO ENHANCE OEE
075.	RAW MATERIAL OPTIMIZATION FOR SWAGING PROCESS
076.	REDUCE REJECTION IN STRAIGHTENING OPERATION
077.	REDUCING FREQUENT FAILURE OF CLUTCH PLATE AND INCREASING PRODUCT LIFE CYCLE OF KSA-2 ACCESSORY OF GEAR BOX
078.	REDUCING THE TURNAROUND TIME FOR VEHICLE OFF ROAD ORDERS
079.	REDUCTION IN GRID TRIPPING BY IMPROVING RELAY COORDINATION
080.	REDUCTION IN PRODUCT COST FOR VEHICLE SECURITY SYSTEM THROUGH VALUE ANALYSIS TECHNIQUE
081.	REDUCTION IN PROJECT DELIVERY TIME OF SAFE USING PROJECT MANAGEMENT TECHNIQUE
082.	REDUCTION OF FRICTION MARK DEFECT IN ANNEALED STEEL PRODUCED AT CONTINUOUS ANNEALING LINE
083.	REDUCTION OF GUTKO TIME TO IMPROVE FURNACE PRODUCTIVITY AND PRODUCT QUALITY
084.	REDUCTION OF HEADLAMP MANUFACTURING LEAD TIME
085.	REDUCTION OF WELDING DEFECTS IN HARDFACE OVERLAY AND BUTT JOINT & IMPROVING PRODUCTIVITY
086.	REJECTION REDUCTION IN OD BURNING IN MODEL #3190(EXHAUST)
087.	RELIABILITY IMPROVEMENT OF ABSORBER WATER WASH MAKE-UP PUMP
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090.	RELIABILITY IMPROVEMENT OF WATER COOLED LOCOMOTIVE COMPRESSOR
091.	RELIABILITY, MAINTENANCE AND ASSET MANAGEMENT IN OIL AND GAS PLANT
092.	RELOCATION OF B102 MANUFACTURING AND RELATED FACILITY TO B101
093.	REVAMPING OF ORGANIZATION QMS FROM ISO 13485:2003 TO ISO 13485:2016 FOR MEDICAL DEVICES
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096.	ROOT CAUSE ANALYSIS AND UPGRADATION OF UN-INTERRUPTED POWER SUPPLY SYSTEM
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098.	RUNOUT CONTROL IN CARS STEEL WHEELS MANUFACTURING
099.	SIDE STREAM FILTRATION PROCESS SYSTEM FOR COOLING WATER SYSTEM OF POWER GENERATING PLANTS
100.	SMART TYRE CONTRIBUTION IN PASSENGER AND ROAD SAFETY
101.	SPECIAL METALLIC GLASS -CERAMIC REINFORCED COMPOSITE BY POWDER METALLURGY PROCESS
102.	SPECIFIC POWER CONSUMPTION REDUCTION OF COMPRESSOR AND COOLING TOWER
103.	SRS ENTERPRISE, PUNE
104.	STANDARD WORK FOR FLOW. (LEAN MANAGEMENT SYSTEM)
105.	STATISTICAL PROCESS CONTROL ON WELD NUT HEIGHT
106.	STRATEGIC ANALYSIS OF ASSET MANAGEMENT
107.	STRATEGY TO TAP THE INDIAN FOOD INDUSTRY - A CONSULTANTS' RECIPE
108.	STRENGTHEN MARKET FOOTPRINT AND RETAIN LEADERSHIP FOR SYNCHRONIZER ASSEMBLY
109.	STRUCTURAL INTEGRITY EVALUATION AND OPTIMIZATION OF PRESSURE VESSEL FOR SOUR SERVICE USING DESIGN BY ANALYSIS METHODOLOGY
110.	STUDY & IMPLEMENTATION OF DELMIA-V5 ROBOTICS
111.	STUDY AND ANALYSIS ON DEFECTS POROSITY, VOID IN CARBON COMPOSITE PART(ADVANCED COMPOSITE MATERIAL) AND MITIGATION PLAN
112.	STUDY AND INVESTIGATION OF "METAL TO FIBER REINFORCED POLYMERS" FOR MECHANICAL PART IN AEROSPACE
113.	STUDY OF AGILE ADOPTION FOR NEW PRODUCT DEVELOPMENT
114.	STUDY OF HYBRID AND ELECTRIC VEHICLES
115.	STUDY ON FOREIGN OBJECT DEBRIS IN CARBON COMPOSITE PARTS ITS PREVENTION AND CONTROL
116.	STUDY ON POWER CONSUMPTION (IN KWH/MT) AND COAL CONSUMPTION (MT/MT) OF FINISHED PRODUCT
117.	STUDY ON THE APPLICATION OF LEAN PRINCIPLES IN AN ENGINEERING CONSULTANCY OFFICE
118.	STUDY THE EXISTING BUSINESS CRITICAL PROCESS AND MAKE IMPROVEMENTS THROUGH PROCESS CONTROL MECHANISM TO ENHANCE THE PROCESS CONTROL RELIABILITY IN SEED PROCESSING AND CONDITIONING FACILITY AT MONSANTO
119.	STUDY THE IMPACT ON THE DIGITIZATION OF LEAN ASSEMBLY SET UP AND ANALYSIS OF APPLICABLE DIGITIZATION TOOLS
120.	SUPPLY CHAIN MANAGEMENT STRATEGY ,PLANNING AND OPERATION
121.	SUPPLY CHAIN MANAGEMENT-GRN TO PUT AWAY LEAD TIME REDUCTION
122.	TECHNOLOGY LANDSCAPE ANALYSIS AND RESEARCH
123.	TEMPERATURE MAPPING OF AIR CONDITIONING SYSTEM FOR PASSENGER CARS
124.	THINK V2 FOAM BACK VERSION LAUNCH IN INDIA MARKET
125.	TIME & MOTION STUDY BY THE METHOD OF MAYNARD OPERATION SEQUENCE TECHNIQUE (MOST)
126.	TO DELIVER FIRST TIME KINGSTON VALVES TO IN DRIAGNH TN AANVDY R THERLIOAUBGLEH QUALITY ASSURANCE PRACTICES
127.	TO DEVELOP NEW PRODUCT LINE FOR MOTORCYCLE FUEL TANK
128.	TO GET A REDUCTION OF 25% USAGE OF MATERIAL IN THE PROCESS OF POWDER COATING
129.	TO IMPROVE ADCS FIRST PASS PIM YIELD PERFORMANCE FOR INPUT CABLE ASSEMBLY
130.	TO IMPROVE PRODUCTION EFFICIENCY SHOP THROUGH PROCESS IM IPNR OMVAECMHEINNET METHODOLOGY
131.	TO IMPROVE PRODUCTIVITY BY OPTIMIZING CURRENT PRODUCTION LINE LAY OUT
132.	TO IMPROVE RESPONSIVENESS IN MARKET BY IMPROVING SUPPLY CHAIN AND MATERIAL PLANNING
133.	TO IMPROVE STRAIGHT PASS OF SCOOTER PRODUCTION BY TPM ZERO DEFECT APPROACH BY PREVENTING /OUTFLOW OF DEFECTS TO ENSURE QUALITY ASSURANCE AND RELIABILITY
134.	TO IMPROVE THE ACCURACY OF BENDING PROCESS USING STATISTICAL PROCESS CONTROL
135.	TO IMPROVE THE PRODUCTION LINE PRODUCTIVITY BY 40% TO MEET THE ADDITIONAL CUSTOMER DEMAND
136.	TO INCREASE GNGP SHOP CAPACITY BY REDUCING VARIOUS LOSSES
137.	TO INCREASE UP TIME OF PLANT WITH THE HELP OF TPM LOSS REDUCTION APPROACH
138.	TO MANAGE AND IMPROVE THE FABRICATION CONSOVEYO CRANES THROUGH IMPROVE MEFEFINCTIE

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139.	TO REDUCE MANUFACTURING COST IN CYLINDER BARREL OIL FLOW WAY IN FOUR STROKE SINGLE CYLINDER ENGINE
140.	TO REDUCE THE CUSTOMER COMPLAINTS IN SCOOTER MODELS BY QC STORY APPROACH TO IMPROVE CUSTOMER SATISFACTION
141.	TO REDUCE THE LEAK TEST FAILURE PERCENTAGE FROM 40% TO BELOW 10% OF A DIE CASTED PART IN DEVELOPMENT STAGE.
142.	TO REDUCE THE STACK EMISSION LEVEL FROM FUME EXTRACTION SYSTEM
143.	TO STUDY ABOUT THE STORING DATA IN THE DATABASE AND FETCHING DETAILS FROM THE DATABASE LIKE ORACLE FORMS AND REPORTS
144.	TOTAL QUALITY IMPROVEMENT AT VENDOR
145.	TOTAL QUALITY MANAGEMENT IN EXTENDED ENGINEERING SERVICES
146.	TQM IN SHIP BUILDING
147.	TURBOCHARGER NOISE REDUCTION
148.	TYRE CURING PRESS LOADER PROTOTYPE FREE FALL BRAKING SYSTEM
149.	ULTRA LOW DOSAGE CNT FOR CONTROLLED RESISTIVITY IN ESD EPOXY FLOORING
150.	VALUE ANALYSIS (VA-VE) OF SUSPENSION COIL SPRING
151.	VALUE STREAM ANALYSIS
152.	WORK TRANSFER OF PRISMATIC PROGRAM - NPD, FAI & SUPPLY CHAIN TRANSITION
<b>M.TECH. PHARMACEUTICAL OPERATIONS AND MANAGEMENT</b>	
153.	A STUDY ON ASSESSMENT OF TRAINING EFFECTIVENESS AND ITS RELEVANCY WITH THE OVERALL ORGANIZATIONAL EFFECTIVENESS AT A MNC PHARMACEUTICALS ORGANIZATION
154.	ARTIFICIAL INTELLIGENCE IN DATA MANAGEMENT AND REGULATORY SUBMISSION IN CLINICAL RESEARCH
155.	CHALLENGES AND GOALS IN PRODUCT LIFECYCLE MANAGEMENT
156.	CURRENT EXPECTATION OF PHARMACEUTICAL QUALITY SYSTEMS WITH RESPECT TO HUMAN ERROR AS CONTRIBUTING FACTOR
157.	DEVELOPING MARKETING STRATEGIES
158.	DEVELOPMENT OF PRODUCTIVITY WITHOUT MAJOR CHANGES OF PRODUCT FACILITY- API MANUFACTURING
159.	DEVELOPMENT, SCALE UP & POST APPROVAL OF IMMEDIATE RELEASE TABLETS: A REGULATORY ASSESSMENT
160.	FORMULATION PROCESS SCALE-UP
161.	GENERIC DRUGS STRATEGIES, PROCEDURES & CHALLENGES IN GCC COUNTRIES AN ANALYSIS OF REGULATORY ENVIRONMENT
162.	IMPACT OF SOCIOECONOMIC STATUS OF PEOPLE ON NHL INCIDENCES IN INDIA
163.	MANUFACTURING EXECUTION SYSTEM: DIGITIZATION IN PHARMACEUTICAL INDUSTRY
164.	MODERN ANALYTICAL TECHNIQUES
165.	MODERNIZING PHARMACEUTICAL/CHEMICAL MANUFACTURING FROM BATCH TO CONTINUOUS PRODUCTION BY ADAPTING CONTINUOUS FLOW CHEMISTRY CONCEPT
166.	MONOCLONAL ANTIBODIES MANUFACTURING PROCESS SCALE UP
167.	QUALITY MANAGEMENT SYSTEM
168.	QUALITY MANAGEMENT SYSTEMS IN BIOPHARMACEUTICAL INDUSTRY
169.	TO STUDY THE PNEUMATIC CONVEYING FOR POWDER TRANSFER
170.	USE OF PINCH TECHNOLOGY IN SOLVENT RECOVERY IN PHARMA INDUSTRY
<b>M.S. SOFTWARE SYSTEMS</b>	
171.	ASSET FAILURE PREDICTION
172.	AUTONOMOUS VEHICLE ( DRIVERS BEHAVIOURS MODELING )
173.	BLACK BOX TESTING TOOL
174.	BLUE GREEN DEPLOYMENT IN OPSWORKS USING HAPROXY
175.	DATA SCIENCE - CLEANSING & ANALYSIS
176.	DISEASE PREDICTION BASED ON DT AND CNN ALGORITHM
177.	RELIABLE UDP PROTOCOL
178.	SMP HUB CONDITIONING FOR ROUTERS



<b>S.No</b>	<b>Dissertation Title</b>
179.	TERMINAL BASED SUPPLEMENTARY SERVICES FOR CIRCUIT SWITCHED AND PACKET SWITCHED VOICE / MULTIMEDIA SERVICES
180.	3DS - TWO FACTOR AUTHENTICATION SOLUTION FOR UBI BANK
181.	CONSOLIDATION SERVICE QUERY OPTIMIZATION
182.	HEURISTIC ENGINE TO AUTOMATE-THE-(TEST)AUTOMATION
183.	MOVIE RECOMMENDATIONS
184.	PEOPLESOFT PEOPLETOOLS UPGRADE - FORD ENVIRONMENT
185.	DATA ANALYTICS ON PRODUCT BUGS WITH GRAPH DB TO IDENTIFY AND EXPEDITE PROCESS EFFICIENCY
186.	IMPLEMENTATION OF AUDIO VISUAL ALARM SYSTEM
<b>M.S. CONSULTANCY MANAGEMENT</b>	
187.	ROLE OF SOCIAL MEDIA IN POLITICAL ADVERTISING OF UP VIDHAN SABHA ELECTIONS OF 2017
<b>M.S. QUALITY MANAGEMENT</b>	
188.	ANALYSIS OF RESOURCE UTILIZATION FOR EFFECTIVE DECISION MAKING
<b>M.S. MANUFACTURING MANAGEMENT</b>	
189.	EMISSION- NOX REDUCTION ASSESSMENT IN CEMENT PLANT
190.	PROJECT IMPLEMENTATION OF RIS & PACS INFORMATION SYSTEMS IN AL JALILA CHILDREN'S SPECIALTY HOSPITAL
191.	REDUCING WASTE TO ENHANCE OPERATIONAL PERFORMANCE USING LEAN MANUFACTURING PRINCIPLES
192.	SCM TRANSFER OF WORK DATA ANALYTICS
193.	VEG PAN REDESIGN FOR BOTTOM FREEZER

**STATEMENT OF DEGREES AWARDED**

Degrees	No. of degrees	
	82 <sup>th</sup> Award (03.03.2018)	83 <sup>rd</sup> Award (20.07.2018)
<b>A. Integrated First Degrees</b>		
<b>B.S.</b>		
B.Optom	-	32(21)
Engineering Design	19(03)	-
Engineering Technology	63(02)	11(00)
Information Systems	2(00)	2(00)
Manufacturing Engineering	1(00)	1(00)
Nautical Technology	7(00)	7(00)
Optometry	40(27)	31(27)
Physician Assistant	-	33(33)
Power Engineering	53(00)	-
Process Engineering	28(01)	1(00)
<b>B.Tech.</b>		
Manufacturing Technology	-	23(00)
Marine Engineering	217(00)	2(00)
Nautical Technology	52(00)	37(00)
Power Engineering	23(00)	-
Process Engineering	-	47(00)
<b>Sub Total</b>	<b>505(33)</b>	<b>227(81)</b>
<b>B. Higher Degrees</b>		
<b>M.S.</b>		
Consultancy Management	-	2(00)
Manufacturing Management	2(00)	3(00)
Quality Management	1(00)	-
Software Engineering	303(178)	3(02)
Software Systems	34(11)	14(05)
<b>MBA</b>		
Consultancy Management	30(05)	58(07)
Finance	-	16(01)
Manufacturing Management	39(02)	66(02)
Quality Management	24(09)	49(10)
<b>M.Tech.</b>		
Automotive Engineering	5(00)	-
Design Engineering	25(02)	37(01)
Embedded Systems	26(02)	26(10)
Manufacturing Management	158(08)	177(10)
Microelectronics	41(03)	-

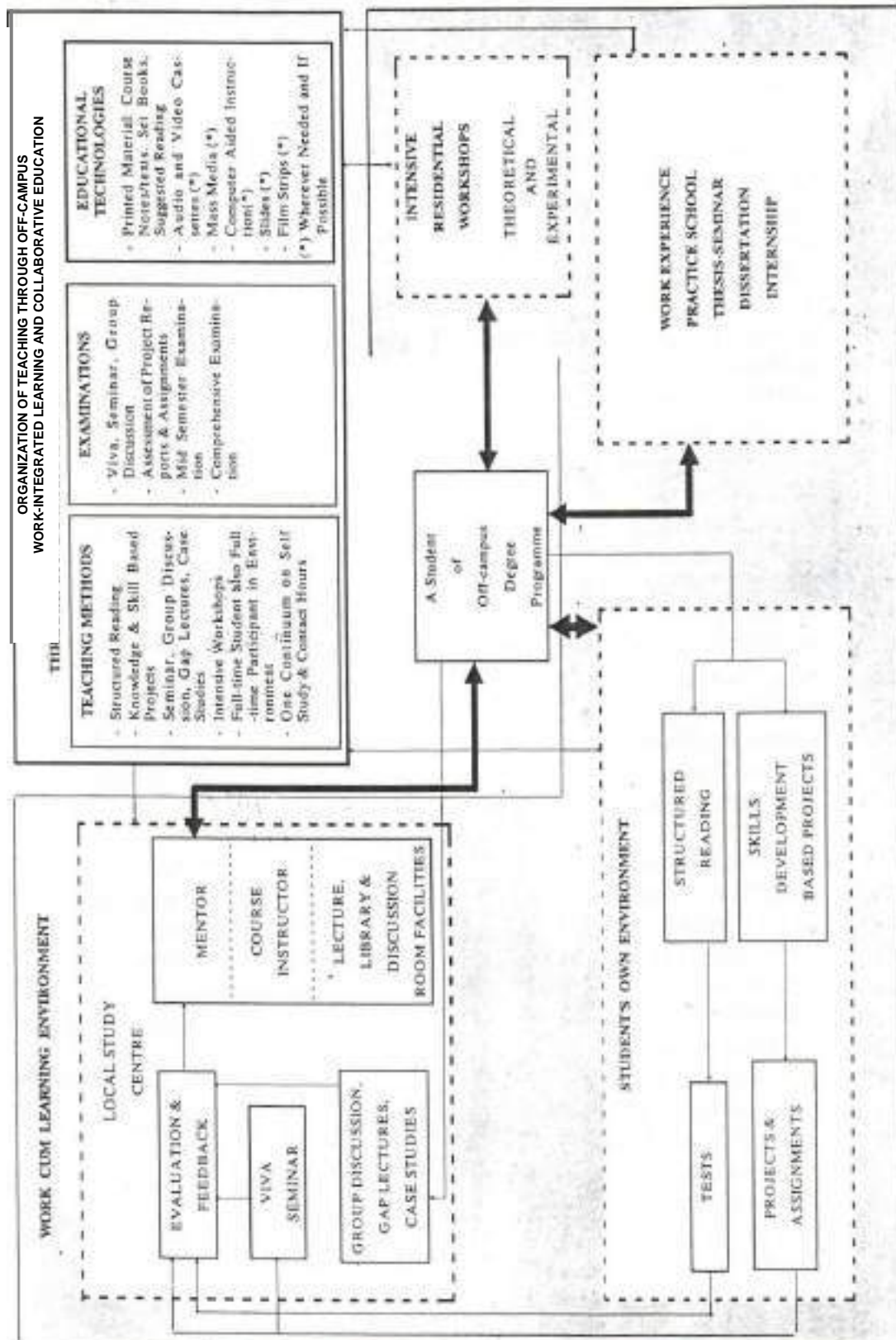
Degrees	No. of degrees	
	82 <sup>th</sup> Award (03.03.2018)	83 <sup>rd</sup> Award (20.07.2018)
Pharmaceutical Operations & Management	-	65(05)
Quality Management	85(13)	110(17)
Science Communication	11(00)	-
Software Engineering	586(279)	135(56)
Software Systems	648(154)	773(196)
Systems Engineering	152(57)	7(02)
Transportation engineering	-	32(3)
<b>M.Phil.</b>		
Consciousness Studies	2(02)	-
Hospital and Health Systems Management	7(00)	22(05)
Optometry	-	-
<b>Sub Total</b>	<b>2179(725)</b>	<b>1595(332)</b>
Post Graduate Diploma (Finance)	-	1(01)
<b>Total</b>	<b>2684(758)</b>	<b>1823(414)</b>

**Note:** The numbers in brackets indicate number of female students.

#### SUMMARY

Award	82 <sup>nd</sup>	83 <sup>rd</sup>	Total
Integrated First Degrees	505(033)	227(081)	732(114)
Higher Degrees	2179(725)	1595(332)	3774(1057)
Post Graduate Diploma	-	1(001)	1(001)
<b>Total</b>	<b>2684(758)</b>	<b>1823(414)</b>	<b>4507(1172)</b>

**Note:** The numbers in brackets indicate number of female students.



A Schematic depicting Person-centred Approach to a Student's Programme of Study in the Off-campus, Education System under Work Integrated Learning Program viewed from the Student's stand-point



**BITS Pilani**  
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