

BITS Pilani

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RESEARCH AT BITS 2020



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PREFACE

Research activities at BITS Pilani encompass work conducted by a large number of students at all levels in the three-tier structure of the educational programmes. A one-semester full-time Thesis course at the First Degree tier and a Dissertation course at the Higher Degree tier offer excellent opportunities to bright students to be involved in research. In the Doctoral programme, a large number of PhD students located at on-campus, as well as off-campus locations are engaged in research work in various research areas. The Institute's linkages with industries, R&D Centres and other institutions in the country and abroad have given a further boost to the research activities of the Institute.

BITS Pilani relies on the motivated intellectual manpower pool available among its faculty and students. Faculty conduct research as an integral part of their responsibilities in the Institute which enables them to assimilate and disseminate the knowledge in addition to generating new knowledge. In addition to this, BITS has devised innovative schemes to enable professionals-at-large to conduct research at their place of work and simultaneously work towards a PhD degree of the Institute.

“Research at BITS” gives details of the academic and sponsored research, consultancy and publication related information involving students and faculty in the different campuses of BITS Pilani. The Annexures to the document list the research related information carried out at all the three tiers of education in the Institute during the year 2020.

CONTENTS

PREFACE

I.	SUMMARY	1
II.	INTRODUCTION	4
III.	RESEARCH ACHIEVEMENTS	8
	1. PhD Awarded	8
	2. Ph.D. Thesis Submitted and Under Process of Evaluation	13
	3. Research Contributions through Higher Degree Dissertations	15
	4. Research Contributions through First Degree Theses	15
	5. Ph.D. Qualifying Examinations	15
	6. Research Publications in SCOPUS Indexed Journals	16
	7. New Doctoral Research Topics / Supervisors Approved	16
	8. Sponsored Research & Consultancy	35
	9. Research Related Seminars/Workshops conducted	110
	10. Patents filed	111
IV.	INFRASTRUCTURE FOR RESEARCH	112
	ANNEXURES	
	1. Completed Doctoral Theses 1964-2020	115
	2. Completed Higher Degree Dissertations	116
	3. Completed First Degree Thesis	128
	4. List of Research Publications	159
	5. Books Published by Faculty members	230
	6. List of Papers presented in Various Conference/Seminar by Faculty members	240
	7. Faculty Research Areas	273

I. SUMMARY

Over the past five years, BITS Pilani has aggressively pursued an agenda for research and innovation, which includes (i) expansion of academic research conducted at all three tiers of its education programme, i.e. First Degree, Higher Degree and PhD and (b) innovation and entrepreneurship through sponsored research and consulting. BITS Pilani has taken several initiatives to support and cultivate a research environment in all four of its campuses in Pilani, Goa, Hyderabad and Dubai. This report summarizes the growth of both academic as well as sponsored research.

1. Academic Research:

BITS Pilani continues to make it more attractive for students to join the PhD programme by taking several initiatives -

- Enabled professionals working in organizations in the vicinity of BITS Pilani campuses to join the PhD programme of the Institute on a Part- Time basis.
- In order to attract bright students into research, all students admitted to the PhD programme with a Higher Degree of BITS Pilani or its equivalent from Semester-1, 2019-2020 onwards receive an Institute fellowship of Rs. 28,000/- or Rs. 31,000/- per month. The Institute fellowship was Rs. 25,000 earlier. After completion of 2 years and DCC approval of the research proposal, the fellowship will be increased to either Rs. 33,000/- or Rs. 35,000/- per month.
- While BITS Pilani is expected to pay a stipend to 50% of all its full time PhD students, the number of PhD students receiving scholarships from CSIR/UGC/ICMR/DBT etc. or by sponsored R&D has grown significantly from 23 in 2010 to 326 in 2020. Around 47% of all Doctoral students receiving funding in one form or the other are supported by Institute fellowship.

BITS Pilani has demonstrated a satisfactory growth in research at all three tiers of education.

- The number of PhD degrees awarded has witnessed an increase from 60 in 2014-2015. 108 degrees were awarded in the year 2020.
- Dissertation projects by Higher Degree students have grown from 61 to 715, since 2010.
- Thesis projects completed by First Degree students have grown from 139 to 3200, since 2010.
- Number of research papers published by faculty members in SCOPUS indexed journals / conferences, has increased from 281 to 1755 since 2010.

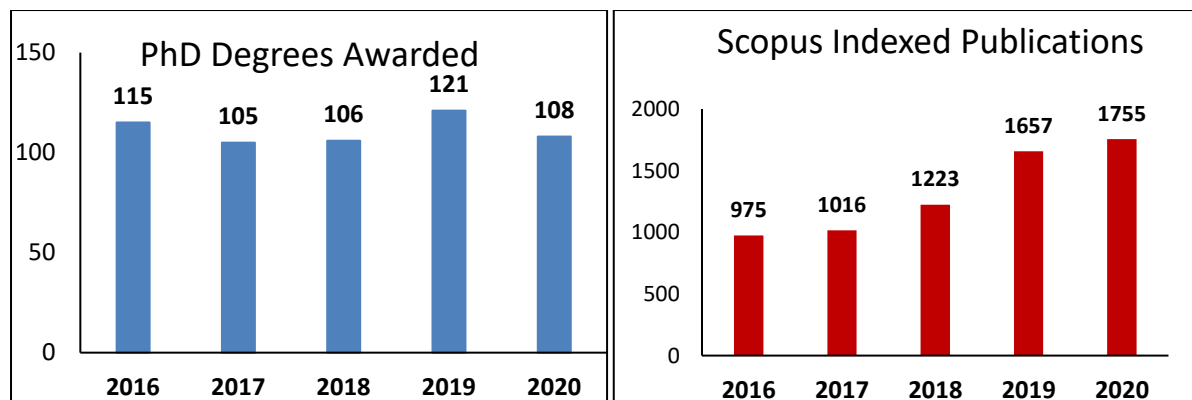


Fig.1: 5 Year data indicating (a) Number of PhD degrees awarded and (b) Research papers published by BITS faculty in SCOPUS index journals (from Scopus website). Publications include papers in journals, books, book chapters and conferences.

2. Sponsored Research and consultancy

BITS Pilani is continuously thriving to enhance its research competitiveness by significantly increasing the external research funding obtained through competitive mode. Despite the pandemic, the external research funding has grown by about 400% during the reporting period. During FY21, 164 external grants of Rs. 224.75 Cr were received. The CAGR during FY16-FY21 is 77.2%. The average annual grant increased from Rs. 18.5 Cr/year (FY12 to FY16) to Rs. 73.3 Cr/year (FY17 to FY21). FY21 grants include 11 international projects worth Rs. 8.38 Cr, 40 Industry and consultancy projects worth Rs. 9.58 Cr, Alumni research support of Rs. 2.41 Cr and CSR Funding of Rs. 2.50 Cr. In addition to the new projects sanctioned in FY21, 391 externally funded projects worth Rs. 117.6 Cr are ongoing. FY21 had 7 infrastructure grants (DST-FIST) worth Rs. 5.24 cr.

During 2020, 20 patent applications were filed.

Highlights of the research grants are presented below:

- Nearly Rs. 225 Cr grants received in FY21 is by far the highest ever and in a pandemic impacted year.
- A major grant of Rs. 125 cr was sanctioned by the National Mission on Interdisciplinary Cyber Physical Systems (NM-IPCS), Department of Science and Technology (DST), Govt of India towards the establishment of a Technology Innovation Hub (TIH) in the domain of Bio-Cyber Physical Systems for a period of 5 yrs. The hub will create various technologies, products and facilitate technology deployment in the field alongside creation of startups. BITS is the only private university among the 25 TIHs chosen.
- Another grant of Rs. 26 Cr was received under 'Promotion of University Research and Scientific Excellence' (PURSE) of DST, GoI. It is awarded to performing universities for their R&D contribution in competitive mode.
- Three grants worth Rs 22.75 Cr were approved by the Department of Biotechnology, GoI under the Scheme BUILDER to establish Interdisciplinary Research School in Life Sciences for a period of 5 years. These projects involve Biological Sciences, Chemistry, Pharmacy, Chemical Engg., EEE&I and Computer Science and Information Systems.
- Prof Nishith Gupta, Department of Biological Sciences of Hyderabad Campus was awarded the prestigious DBT-Wellcome Trust India Alliance Grant of Rs. 4.44 Cr for a period of 5 years.
- Two infrastructure grants worth Rs. 2.97 Cr were sanctioned under FIST-DST Scheme for a period of 5 years to Department of Chemistry, Hyderabad Campus (Rs. 1.87 Cr) and Department of Computer Science and Information Systems, Pilani Campus Rs 1.1 Cr.
- Prof Ashis Kumar Das, Dept. of Biological Sciences, Pilani campus received a grant of Rs. 1.2 cr under ICMR-Malaria Elimination Research Alliance (MERA) for a period of 2 years to develop a diagnostic device for malaria.
- Prof Srinivas Krishnaswamy, Dept. of Chemical Engineering and Prof Sunil Bhand, Dept of Chemistry, KK Birla Goa Campus received CSR Research funding worth Rs. 1.05 Cr from Birla Carbon in the area of resource recovery and circular economy.
- Prof K.S Sangwan, Dept. of Mechanical Engg, Pilani Campus received a grant of Rs. 95 L under Joint Indo-German academy towards sustainability (German Academic Exchange Service, DAAD) with TU Braunschweig, Germany.
- Prof Srikanth Mutnuri, Dept. of Biological Sciences, KK Birla Goa Campus received a grant of Rs 73 L jointly with Georgia Tech, USA from Bill and Melinda Gates Foundation USA towards *Generation 2 reinvent the toilet* program.
- Prof Halan Prakash, Department of Chemistry, KK Birla Goa Campus received a collaborative grant of Rs. 1.05 cr (BITS share Rs. 68 L) under the Water Technology Initiative of DST for a period of 2 years along with IIT Guwahati as a collaborator.

- Prof Samit Chattopadhyay, Dept. of Biological Sciences, K.K. Birla Goa Campus received the J.C. Bose Fellowship having a grant of Rs 66 L.
- Prof Suman Kapur, Dept. of Biological Sciences, Hyderabad Campus received two CSR research funding from Century Textiles worth Rs. 61.5 L in the area of Covid-19 testing and mitigation.

Industry sponsors: Intel Technology India, Tata Consultancy Services, Procter and Gamble Health Limited, John Deere India, Reflexis Systems, USA, Birla Carbon, Century Textiles & Industries, Godrej Agrovet, Godrej-ASTEC Lifesciences, Tide Technocrats, IORA Ecological Solutions, Deccan Fine Chemicals (India), Goa Carbon Limited, Sixth Sense, Redpine Signals, India, Dvara Research, Slay back Pharma, Parenteral Drug Association (PDA), Wipro, Medicen Devise Technologies, Transform SciTech, TestAlng Solutions, MKS Vision USA, Chanceux Labs.

International Funding Agencies: DAAD Germany, Research Council of Norway, Ford Foundation USA, Welcome Trust India Alliance, Bill and Melinda Gates Foundation USA, Institute of Global Environmental Studies Japan, WASH Institute, Delsys-De Luca Foundation, USA, Shastri Covid-19 Pandemic Response Grant (SCPRG), Canada: UKRI-MRC-Lancaster, Shastri Indo-Canadian Institute, McGill University, Canada.

Government Funding Agencies: Department of Science & Technology (DST), Science and Engineering Research Board (SERB), Department of Biotechnology (DBT), Council of Scientific and Industrial Research(CSIR), Board of Research in Nuclear Sciences (BRNS), Defence Research and Development Organization (DRDO), Indian Council of Medical Research (ICMR), Indian Space Research organization (ISRO), Indian Council of Agricultural Research (ICAR), Indian Council of Social Science Research (ICSSR), Indian Council of Philosophical Research (ICPR) Wildlife Trust of India, UGC-DAE Collaborative Research Scheme (CRS), National Council of Educational Research and Training(NCERT), Central Pollution control Board (CPCB), Forest Survey of India, Ministry of Env. Forest (MOEF), Data Security Council of India, Department of Science Technology & Environment, Govt. of Goa (DSTE-Goa), National Highway Authority of India (NHAI), Roads and Buildings Telangana Project, Goa State Biodiversity Board (GSBB), Goa Cancer Society.

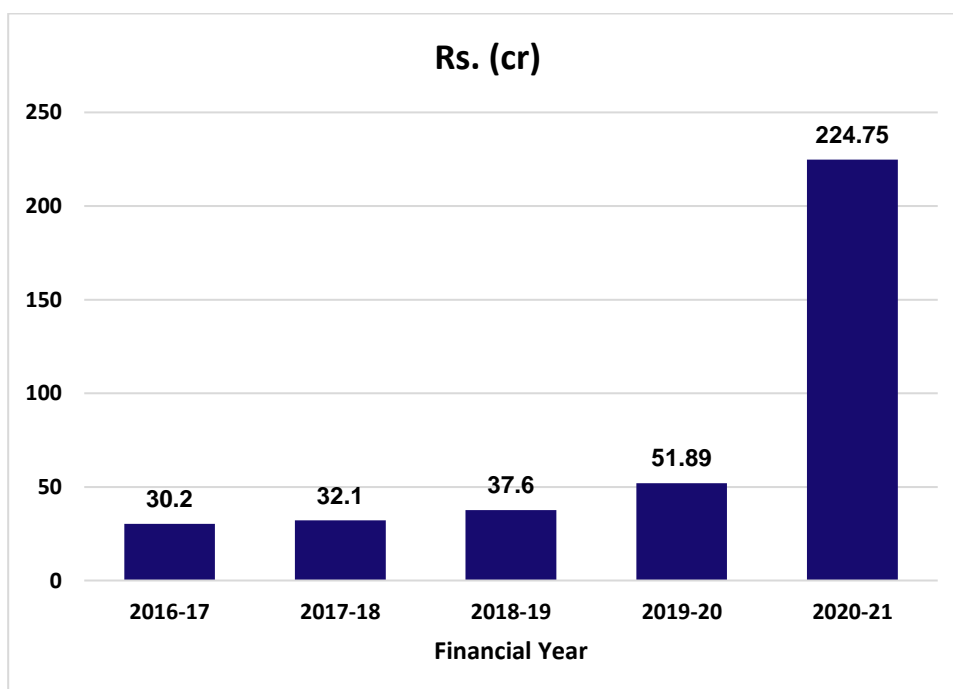


Figure 2: Trend of sponsored research funding (FY 2016-17 to 2020-21)

II. INTRODUCTION

Promotional Efforts for Research

Research Initiation Grant

Research Initiation Grant aims to enable and support research related activities for a newly recruited faculty. The grant of Rs 2.0 lakhs is awarded soon after the faculty joins BITS Pilani and is to be spent within 24 months of appointment. It is expected that faculty who avail Research Initiation grant will seek external funds to support their research program within two years of the commencement of the grant.

Seed Grant Scheme of the Institute

The Institute has initiated a competitive Seed Grant Scheme. The scheme is designed to stimulate competitive research in strategic areas of national or international importance, to promote innovative product and technology development, and/or to facilitate the start of research programs which will potentially develop into creative ventures on their own through external funding. It aims to aid a faculty to engage in sustained research that has the potential to attract funds from external agencies. Grants are awarded to a maximum value of Rs.20 Lakhs.

Additional Competitive Research Grant for New Faculty

This scheme provides up to 10.0 lakhs to a new faculty to initiate research by procuring equipment or establishing facility necessary for his/her research. This scheme is over and above (a) the usual Rs 2.0 lakh given to eligible new faculty as "Research Initiation Grant" and (b) the Seed grant made available on a competitive basis to existing faculty to initiate research.

Industry Immersion Program

BITS Pilani encourages and supports its on-campus faculty members to spend a few weeks in industry through an Industry Immersion Programme. This helps the faculty members to gain first-hand exposure to industry practices and eventually enable them to utilize this knowhow during teaching in the classroom and for research work. It is expected that faculty define a roadmap to address one or more technical challenges identified during the visit by way of "R&D projects" and seek funding support from the company itself or from a funding agency. BITS Pilani encourages its faculty members to receive financial support from the company for travel, stay, and per diem, as also honorarium. Support to faculty from BITS Pilani in this Industry Exposure Program though limited is provided.

University Immersion Program

BITS Pilani encourages and support its faculty members to spend few weeks in reputed research institutions (within and outside India) through the University Exposure program. It is expected that faculty will gain first-hand exposure to current/latest advances in research and define (or re-define) one's research agenda, incorporating therein the possibility for cross-discipline and international collaboration and seek funding from national/international funding agencies. The typical financial support offered to faculty under this programme is given below:

Travel cost in economy class (actual), but limited to (Rs.):	1,00,000/-
Lodging cost (actual, per week, Rs.):	30,000/-
Boarding cost (fixed, per day, Rs.):	3,500/-
Miscellaneous, including local travel (fixed, per week, Rs.):	5,000/-
Visa fees (actual, but limited to Rs.):	10,000/-
Medical Insurance (actual) but limited to (Rs.):	5,000/-
Eligible to be considered to be "on duty":	Yes

Opera award

The award named OPERA award (for "Outstanding Potential for Excellence in Research and Academics") is to facilitate and incentivize new faculty to join BITS Pilani and excel in research and teaching. The award is in the form of a "joining bonus" paid over 5 years, plus funds to kick-start their R&D and professional development. The award will help compensate new faculty (or provide R&D funds) at par with the best institutions in India. The award carries a grant of Rs. 4.2 Lakhs per year for 5 years, subject to a performance review at the end of 2 years. The award is given to facilitate and incentivize new faculty to excel in research and teaching. From the grant, the faculty may (at his/her option) take home up to Rs. 21,000 pm as honorarium, and use the balance for any academic purpose that helps him/her to initiate research and grow professionally (including support to research students/staff, undertake domestic or international travel to attend a conference, or procure equipment, supplies or books, etc.).

Chair Professor Positions

BITS Pilani invites applications / nominations for Chair Professorship positions in the Institute. The applicant is expected to be a Full Professor with an established record of teaching, an exceptional record of published research in high quality journals, including guidance of PhD students and demonstrated ability to attract significant research funding as well as having an ability to lead teams in multidisciplinary projects. The incumbent is also expected to serve as mentor to junior faculty members and to the students.

The faculty member "appointed against the Chair" will be called "XXX Chair Professor" and will receive at the beginning of each year a research grant of an amount up to 6 Lakhs. It also includes a monthly honorarium of up to 30,000/-. Apart from the honorarium, the Chair Professor will draw the normal emoluments of a Professor as per 7th pay commission. The grant may be used for any academic purpose including hiring of research students / staff, undertaking domestic or international travel, incurring expenses towards specialized training in India / abroad, procurement of equipment, supplies and books, source support services, inviting collaborators for short visits across BITS Pilani campuses etc. The "appointment" against the Chair will be normally made for a period of up to five years, but such that it does not extend beyond the term of employment as Professor.

Faculty Development Scheme

This scheme of the Institute allows for faculty holding a Higher Degree of the Institute or its equivalent to pursue PhD and simultaneously contribute to academic activities of the Institute as lecturers. The Institute waives their total admission and tuition fee under this scheme.

Part Time PhD Scheme

The Institute, in addition to its full time PhD programme offers opportunities for candidates working in reputed research organizations, academic Institutes and industries, situated preferably in the close vicinity of any of the campuses of BITS Pilani to pursue a PhD Degree on a part time basis.

PhD Aspirants' Scheme

The Off-campus PhD under the PhD Aspirants' scheme has attracted wide attention. Under this scheme, an opportunity is provided to candidates of high standing and proven competence from organizations having collaboration with BITS Pilani, to study for the PhD degree of the Institute within the environment of their professional settings.

A few important organizations from which candidates were/are associated with the Institute under the Aspirant scheme are listed below:

- Indian School of Business, Hyderabad
- Tata Institute of Fundamental Research, Mumbai
- Central Electronics Engineering Research Institute, Pilani
- Industrial Toxicology Research Centre, Lucknow
- Sankara Nethralaya and Elite School of Optometry, Chennai
- L.V. Prasad Eye Institute, Hyderabad
- Institute of Cardio-Vascular Disease, Chennai
- Institute for Technology and Management, Navi Mumbai
- Institute of Pathology, ICMR, New Delhi
- Infosys, Pune
- Indian Army, Delhi / Secunderabad
- G. E. Healthcare, Bangalore
- Crompton Greaves Ltd., Jalgaon
- Dr. Reddy's Lab, R&D, Bachupally, Hyderabad
- DRDO, Research Centre IMARAT, Hyderabad
- Elfit Arabia, Ajman, UAE

Research at Higher & First Degree Levels

As part of the academic requirement of the Higher Degree, (i.e. M.E./M.Pharm./M.Phil./MBA.) of the Institute, students are offered opportunities to do a one or two Semester Dissertation. Higher Degree students opting for a Dissertation register for this course in the third and/or fourth semester of the programme and work under the supervision of a faculty on a research project. Dissertation work can be carried out under the on or off-campus mode.

At the First Degree tier, besides various project courses, students can opt for an on-campus one full-semester Thesis project of 16 units or of 9 units along with course work, in which research is pursued on a relevant topic. The thesis can also be carried out at a suitable R&D Centres / Universities outside BITS Pilani (within India or abroad).

Students Contribution

The creative and talented pool of students at BITS Pilani are also actively engaged in carrying out research based project works at Practice School Centres which is an integral part of the First or Higher Degree programme. They also contribute towards research activities by participating in Conferences, Seminars, Symposia and Training Programmes. Every year a technological festival called 'APOGEE' is organized in Pilani, wherein the students put up ingenious models depicting latest advances in science and technology. An equivalent festival 'QUARK' and "ATMOS" is organized in the BITS-Pilani K.K. Birla Goa and Hyderabad Campus respectively.

Institute Fellowship

With a view to increase enrolment of PhD students, Institute has created Research Assistantship for full time Research Fellows. The PhD fellowship amount has been increased up to 28,000/- or Rs. 31,000/- (depending on input qualifications) per month from Rs. 25,000/-. A total of 605 full time research students, admitted to the PhD programme, received Institute fellowship across campuses in 2020.

Research Scholarships

Full-time PhD students are encouraged to pursue their research work with the support of Fellowships awarded by national agencies such as the Council for Scientific and Industrial Research (CSIR), University Grants Commission (UGC), Department of Science & Technology (DST), Department of Biotechnology (DBT), Defence Research and Development Organization (DRDO), Indian Council of Medical Research (ICMR), Ministry for Non-conventional Energy Sources (MNES) and International agencies such as Indo-US Science Technology Forum, Newton Bhabha Fellowship ((Indo-UK), Erasmus Mundus Fellowship (European Union), Raman Charpak Fellowship (Indo-French) etc.

Research at Outside Centres

Opportunities are also provided to full time research scholars and faculty for carrying out their research work at outside centres within the country and abroad so as to develop manpower in the newer areas of technology and giving special orientation to research. Currently, institutional arrangements with various international universities and research organizations exists in the form of MoU for this purpose. Faculty and PhD students have also been actively participating for high quality research exchange within the joint bilateral International sponsored projects with Brazil, Canada, France, Germany, Japan, Netherland, Russia, Ukraine, U.K. and USA etc.

Sponsored Research Projects

BITS encourage its faculty to undertake sponsored research projects as well as consultancy projects. The Institute has received sponsored research projects from various national agencies such as Ministry of Human Resource and Development MHRD under SPARC scheme, Council of Scientific and Industrial research (CSIR), Department of Science and Technology (DST), Department of Biotechnology (DBT), Board of Research in Nuclear Sciences, (BRNS), Defence Research and Development Organization (DRDO), Department of Electronics and Information Technology (DeitY), Indian Council of Medical Research (ICMR), Indian Council of Agricultural Research (ICAR), Indian Council of Social Science Research (ICSSR), Indian Space Research Organization (ISRO), Ministry of Nonconventional Energy Sources (MNES), Ministry of Mines, Ministry of Steel, and International agencies such as European Union, Horizon 2020 under DST-EU grants, Bill and Melinda Gates Foundation, Indo-UK (UKIERI), DAAD and BMBF (Germany), Indo-French (DST-CEFIPRA), British Council, VINNOVA (Swedish Agency for Innovation), Newton Funds (UK), Global Challenge Research Funds, UK, Medical Research Council UK, IC-IMPACT Canada, Research Council Norway, Royal Academy of Engineering UK, Newton Bhabha Funds UK, EAWAG Switzerland, GIZ Germany, and other such international bilateral grants. The faculty also received funding from Industries such as Gas Authority of India Limited (GAIL), Centre for High technology (Ministry of Petroleum), Accenture (USA), Lockheed Martin (USA), TCS India, CISCO, Nokia, Microsoft Research India (MSRI), Cipla Biotech Ltd., Tata Trust, HP Lab India, Ranbaxy Research laboratories Ltd., IPCA Laboratories Ltd., INTAS Pharmaceuticals Ltd., Morningsight UK, etc. Since 2010 the sponsored R&D funding of BITS has significantly grown from Rs. 7.5 cr in 2010-2011 to Rs. 224.75 cr in 2020-21. Section II gives a list of ongoing sponsored research and consultancy projects.

New Initiatives towards Inducting Fulltime Research Students at the Institute

Direct Fellowships by other funding agencies

Funding agencies such as Council of Scientific and Industrial Research (CSIR), University Grants Commission (UGC), DST, ICMR has provided 173 Junior and Senior Research Fellowships in the year 2020 across the three Indian campuses. These Research Fellows are also working towards a PhD degree of the Institute.

Fellowships under Externally Funded Projects

Apart from the above mentioned Fellowships, there are full time research scholars working on projects sponsored by various agencies like DST, DBT, CSIR, ICAR, NPMASS, Incozen, MOM, BRNS, MNRE, UGC, ICMR, TCS etc. A total of 163 such research scholars were funded in 2020, across the three Indian campuses.

Areas of Research

Currently the research activities are focused in the following areas:

Areas of Research

Biological Sciences: Environmental Biotechnology, Bioinformatics, Microbial Biotechnology, Molecular Biology, Molecular Parasitology & Vector Biology, Molecular Diagnostics, Cancer Biology and Biomarkers, Plant Biotechnology.

Bioengineering: Biomaterials, Biomechanics, Bioinstrumentation, Bio-transport Process.

Civil Engineering: Structures, Water Resources, Geotechnical, Transportation, Environmental Engineering, Image Processing and G.I.S., Disaster Management, Earthquake Engineering, Solar Architecture, Finite Element Method, Non-traditional optimization algorithms, Artificial Neural Networks, Fuzzy Logic and Multi-criterion Decision Making and their applications.

Chemical Engineering: Biochemical Engineering, Biomass Gasification, Computation Fluid Dynamics, Energy Engineering, Environmental Engineering, Evolutionary Computation, Modeling and Simulation, Multi-Objective Optimization, Multiphase Reactors, Process Dynamics and Control, Process Integration and Process Intensification, Reaction Engineering, Polymer Science and Engineering, Process Synthesis and Design, Separation Processes and Petroleum Refining and Petrochemicals.

Chemistry: Organic including Natural products, Bioorganic, Inorganic, Bioinorganic, Physical, Biophysical, Medicinal, Analytical, Green, Theoretical and Computational Chemistry; Nanomaterials; X-Ray Crystallography.

Computer Science & Information Systems: Computer Networks, Distributed Systems, Database Systems, Software Engineering, Operating Systems, Multimedia, Computer Control Systems, Computer Architecture, Compilers, Formal Methods, Information Retrieval

Economics and Finance: Macroeconomic Models and Policy, Microeconomic Analysis, Money and Financial Markets, Financial Engineering, Econometric Studies, Financial Modeling, Mathematical Economics, Environmental Economics, Resource Management Systems, Growth Economics, Banking, Micro Finance, Capital Markets, Macroeconomic Modeling, Applied Finance, Environment and Resource Economics International Trade and Finance, Strategy, Financial Management, Corporate Planning, Entrepreneurship, Project Management.

Electrical and Electronics Engineering: Communication Systems, Wireless and Mobile Ad-hoc Networks, Optical Communication and Networks, Microelectronics and VLSI Design, Signal Processing and Embedded Systems, Power Electronics and Drives, Power Systems, Telecommunication, Robotics and Intelligent Systems, Fiber Optic Sensors, Artificial intelligence techniques in robotics, Instrumentation & Control, Wearable computing, Energy and Power Systems.

Humanistic Studies: Gender Issues including Women Studies, Medical Sociology, Developmental Sociology, Indology, Governance, Business Ethics, Conflict Management, Ethical Communication, Social Development, Sustainable Livelihoods, Consciousness Studies, and Social Ecology.

Languages: Professional Communication, ELT, Literature and Cinema, English Language and Literature, Soft Skills, Mass Communication.

Mathematics: Coding Theory, Cryptology, Algebraic Geometry, Parallel Computing, Fuzzy Logic and its applications, Water pollution, Mathematical Modelling, Nonlinear functional analysis, Computational fluid dynamics, Optimization, Operations Research, Mathematical Biology, Differential equations, Fractional Calculus, Dynamical System, Epidemiology.

Mechanical Engineering: Product Design and Development, Manufacturing Engineering, Manufacturing Excellence Practices, Design Engineering, Materials Engineering, Fracture Studies, Non-destructive Testing, Robotics and Intelligent Systems, Nano Technology, Thermal Engineering, Energy Systems Engineering and Energy Management.

Management: Indian Management Practices, Management Practices in MNC, Cross Cultural Management, Performance Appraisal, Strategic Marketing, Retail, Brand Management, Clustering Methodology, Strategy, Sustainable Development, Evolving Capitalism & Regulations, Project Management, Production Management, Facility Layout Planning, Application of TOC in Operations Management, Supply Chain Management, R&D Management, R&D Performance Measurement, Technology Management, ERP, MIS, E-business, Image Processing, Risk Management, Capital Markets, Quantitative Methods, Business Modeling, Stochastic Modeling of Production Systems, Reliability Analysis & Modeling, Organizational Behavior, Positive Health Psychology, I/O Psychology, Indian Psychology, Innovation and Creativity, Negotiation Skills, Managerial Skills, Entrepreneurship and Health Care Management.

Pharmacy: Drug Design, Synthesis and Screening of New Bioactive Molecules, Drug Delivery Systems, Phytochemistry and Natural Drugs.

Physics: Materials Physics; Condensed Matter Physics; Nuclear, Particle and High Energy Physics; Optics & Spectroscopy.

Interdisciplinary Research: Nanotechnology and nanoscience, Nano-robotics, Micro-electro-mechanical systems (MEMS), Nanomaterials, Mechatronics

The next section and appendices give details of research achievements in the current year.

III. RESEARCH ACHIEVEMENTS IN 2020

In this section, significant achievements made in academic and sponsored research and related aspects are presented. These are presented under the following broad categories:

- Candidates awarded a PhD Degree
- Thesis submitted or under evaluation
- Research Contributions through Higher Degree Dissertations
- PhD Qualifying Examination
- Research Publications
- New Doctoral Research Topics/Supervisors approved by the Research Board
- Sponsored Research Projects
- Consultancy Projects and Services Offered
- Research Related Seminars/Workshops
- Patents filed by BITS faculty

1. PhD awarded

S.No	Name	Department	Supervisor / Co-supervisor	Thesis Title
Pilani Campus				
1.	Monika M.	Bio. Sciences	B. Vani Shibasish Chowdhury	Elucidation of Alkaline Tolerance Mechanism in <i>Arthrospira platensis</i> NI3ES-39
2.	Paridhi Puri	EEE	SU Belgamwar NN Sharma	Study, Design and Fabrication of 3D Carbon Electrodes for Cell Separation Using Dielectrophoresis
3.	Malek Vajirbhai M.	Pharmacy	Gaikwad Anil Bhanudas	Role of Nephrilysin in the Development of Cardiomyopathy and Nephropathy Associated with Type 1 Diabetes
4.	Prachi Venkat	Physics	Amol R. Holkundkar	Interaction Dynamics of Intense Ultra-short Laser Pulses with Atomic Clusters
5.	Nitesh Sihag	Mechanical	Kuldip Singh Sangwan	An experimental analysis of energy consumption and environmental impacts of milling process
6.	Shweta Sharma	Chemical	Banasri Roy HK Mohanta	BIMEVOX Catalyst Systems for Low Temperature Steam Reforming of Ethanol with the Aim of Hydrogen Production
7.	Shivani Nain	Mechanical	Jitendra Singh Rathore Niti Nipun Sharma	Design, Simulation and Experimental Investigations on Scaled Up Branched Flagellated Artificial Nanoswimmer
8.	Shreekant Varshney	Mathematics	Chandra Shekhar	Optimal Control of Queueing Models in Service and Machining Systems: A Nature-Inspired Approach
9.	Amit Kumar	Mathematics	Chandra Shekhar	Stochastic Modeling of Repairable Machining System with Spare Provisioning
10.	Prateek Bindra	EEE	Arnab Hazra	Selective Sensing of Volatile Organic Compounds Using One Dimensional Titanium Dioxide Nanostructures
11.	Santosh Kumar Yadav	Mathematics	Suresh Kumar	Study of Observational Constraints on Dark Sector of the Universe
12.	Dinesh Kumar	Chemistry	Prashant Uday Manohar	Computational development and implementation of some cost-effective variants of coupled-cluster based methods for energies and properties of molecules in near-degenerate electronic states
13.	Susheela Kumari	Chemistry	Saumi Ray	Encapsulation and Catalytic Studies of "Ship-in-a-bottle" Transition Metal Complexes inside the Microporous Material
14.	Ashish Patel	EEE	HD Mathur Surekha Bhanot	Development of Improved Power Angle Control Methods for Unified Power Quality Conditioner with Distributed Generation

S.No	Name	Department	Supervisor / Co-supervisor	Thesis Title
15.	Vikram Pareek	Bio. Sciences	Jitendra Panwar	Elucidating the Antibacterial Mechanism of Silver Species against Gram-Negative Bacteria
16.	Gaurav Deep Singh Gill	Civil	RK Mittal	Behaviour of Shallow Footings Resting on Waste Tire Chips Reinforced Sand and Copper Mining Wastes
17.	Saswat Kumar Pradhan	Chemical	Suresh Gupta Jitendra Panwar	Synthesis of Metallic Nanoparticles for the Removal of Heavy Metals from Wastewater
18.	ZEESHAN	Economics	Geetilaxmi Mohapatra A.K. Giri	Determinants and Dynamics of Livelihood Diversification for Household Well-Being in Rural India
19.	Amrita Patwa	Management	Anil K. Bhat	An Investigation into the Antecedents of Employee Engagement & Employee Creativity
20.	Anuj Kumar Ojha	EEE	Praveen Kumr AV	Performance Enhancement of Cylindrical Dielectric Resonator Antennas for Low Cross Polarization and High Gain Applications
21.	Rajinder Kaswan	Chemistry	S.C. Sivasubramanian Anshuman Dalvi	Silica Gel Based Li ⁺ ion Solid Electrolytes: Studies on Structure, Electrical Transport and Supercapacitance
22.	Dewal Mishra	Civil	AK Sarkar	A study to estimate the Impact of Accessibility on Transit Mode Choice
23.	Parvin Kumari	Mathematics	Devendra Kumar	Boundary Layer Resolving Numerical Methods for Singularly Perturbed Boundary Value Problems
24.	Arghya Maity	Physics	Naveen Singh	Statistical Mechanics of DNA in Confined Geometry
25.	Anoop Singh	Chemistry	Indresh Kumar	Catalytic Approaches Towards the Synthesis of Indole based Heterocycles
26.	R. Arun Karthick	Chemical	Pradipta Chattopadhyay Banasri Roy	Synthesis and Characterization of Surfactant Foams for Remediation of Contaminated Soil and Detergent Formulation
27.	Vidhi Agrawal	HSS	H.G. Nair	Fostering Dialogical Governance: The Role of the Jan Sunwai in the People's Movement towards Transparency (Rajasthan, circa 1993-2012)
28.	Vidushi Asati	Biological Sc.	P.K. Sharma	phytochemical and metabolic characterization of pods and seeds of prosopis cineraria and cyamopsis tetragonoloba with respect to isoflavonoids and flavonoid for potential medicinal applications
29.	Kocherlakota Satya Pritam	Mathematics	Trilok Mathur Shivi Agarwal	Prospects of Fractional Calculus in Sustainable Development Goals
30.	Ms. Leena Fageria	Biological Sc.	Rajdeep Chowdhury Surojit Pande	An analysis of the uptake mechanism of nanoparticles, its temporal effect on autophagy and organelle dynamics in breast cancer cells
31.	Seema Sinha	HSS	Kumar Sankar Bhattacharya	Celebrating the Marginals: Reading the Selective "Others" in The Mahabharata
32.	Nisha Sharma	Pharmacy	Gaikwad Anil Bhanudas	Involvement of Histone H3 Methylation, Angiotensin Converting Enzyme 2, and Angiotensin II Type 2 Receptor in the Pathogenesis of Acute Kidney Injury under Type 1 Diabetic and Non-diabetic Conditions
33.	Shruti	Mathematics	Rakhee	Channel access and reliability assessment in cellular mobile networks modeling and performance analysis
34.	Manikandan H.	Mechanical	Tufan Chandra Bera	Investigations on Characterization of Surface Errors in Turning of Thin-Walled Components
35.	Italiya Kishan Shamjibhai	Pharmacy	Anupama Mittal	Development and Evaluation of Self-assembling Lisofylline-Linoleic Acid Conjugate and its Polymeric Nanoformulation for Treatment of Diabetes Mellitus
36.	Dhananjay Kumar	EEE	HD Mathur Surekha Bhanot	Design and Analysis of Robust Optimized Controllers and Forecast Techniques for Frequency Regulation in Islanded Micro-Grid
37.	Kowthavarapu V. Krishna	Pharmacy	Sunil Kumar Dubey R.N. Saha	Design and Evaluation of Lipoprotein Based Donepezil Nano-carriers for the Effective Treatment of Alzheimer's Disease

S.No	Name	Department	Supervisor / Co-supervisor	Thesis Title
38.	Saurabh Sharma	Pharmacy	Deepak Chitkara	Development and Evaluation of Lipo-polymeric Nano-carriers Containing MicroRNA-34a and Docetaxel for the Treatment of Breast Cancer
39.	Vishal Kachwal	Chemistry	IR Laskar	Development of solid state luminescent smart materials for multi-stimuli probes
40.	Vidhi Vyas	Civil	AP Singh Anshuman	Development of Data-Driven Decision-Support Approached using Non-Destructive Testing for Enhancing Pavement Management Systems
41.	Shubha Dubey	HSS	Rajneesh Choubisa	Role of Psychological Capital in Relation with Employees Perceptions of Organizational Virtuousness on Employee Performance
42.	Prashant Bhakar	Civil	AP Singh RK Mittal	Sustainable Management of Ground Water Resources in the Western Arid Regions of Rajasthan
43.	Satyendra Singh Chauhan	Mathematics	Ashish Tiwari	A study of varying viscosity effect on physiological flows through microvessels
44.	Vaishali Saini	Chemistry	Bharti Khungar	Imidazolium- and Pyridinium-based Compounds as Potential Catalysts and Chemosensors
45.	Aditi S. Divatia	Management	Jyoti Tikoria Sunil Lakdawala	Analysis of Factors Influencing the Maturity of Business Intelligence & Analytics BI&A Capability of Organizations in India
46.	Rashmi Jangir	Physics	JN Bandyopadhyay Tapomoy G. Sarkar	Floquet Analysis of some Periodically Driven Classical and Quantum Systems
47.	Vijay Kumar Sharma	Management	SK Sharma AP Singh	Investing Risk Management Practices and Development of Strategic Risk Management Framework for Logistics Infrastructure Projects

Dubai Campus

1	P. Velmurugan	Electrical & Electronics Engineering	Prof AB Chattopadhyay	Detection of High Impedance Fault and Sensitivity Analysis of Distribution Power System in Desert Region
2	Milu Mary Philip	Computer Science	Prof B Vijaya Kumar	Software Architectural Design for Interactive and Data Stream Oriented Systems with Changing Requirements
3	Lekha R. Nair	Computer Science	Dr Sujala D Shetty	Implementing Optimized Static and Streaming Analytics, Visualization and Secure Storage of Big Data on Cloud
4	S.Rajeswari	Bio Technology	Prof. Neeru Sood	Evaluation of Salinity Stress Responses in Different Accessions of Barley (<i>Hordeum vulgare</i> L.) and Pearl Millet (<i>Pennisetum glaucum</i> (L.) R. Br.)
5	Raavee Kadam	Humanities	Prof. Shazi Shah Jabeen	Impact of cultural intelligence on organizational citizenship behavior: An empirical study of employees in the multicultural workplace

Goa Campus

1	Khairnar V Vishnu	EEE	Prof. Ramesha C K Prof. Lucy J. Gudino	Design and Development of Linearly and Circularly Polarized Pattern Reconfigurable Antennas
2	Tuhin Malick	Physics	Dr. Tarun Kumar Jha Prof. Bijay Kumar Agrawal	Equation of state for dense matter from finite nuclei to neutron star mergers
3	Mulya Satish Anand	Mechanical Engg	Dr. G. Karthikeyan Dr. Ranjit S. Patil	Process Simulation and Experimental Investigation on Inter-electrode gap of Micro Electric Discharge Milling
4	Arun Kumar Prusty	Chemistry	Prof. Sunil Bhand	Development of Polymer Based Capacitive Sensors for Analysis of Herbicide and Antibiotic Residues in Water and Milk
5	Madhurya C	Chemistry	Prof. N. N. Ghosh	Synthesis of Magnetic Nanoparticles-Reduced Graphene Oxide based Multifunctional Nanocomposites: Their Applications as Reusable Catalysts and Electrode Materials for Supercapacitor
6	Santosh K Bhal	Mathematics	Prof. P. Danumjaya Dr. Anil Kumar	Orthogonal Spline Collocation Methods for Differential Equations with Interfaces

S.No	Name	Department	Supervisor / Co-supervisor	Thesis Title
7	Merina Dhara	Biology	Prof. Veeky Baths	<i>Mycobacterium tuberculosis</i> Network Analysis and Mathematical Modeling of Diabetes and Tuberculosis Association
8	Atanu Guha	Physics	Prof. Prasanta Kumar Das	Astrophysical Constraints on Dark Matter Effective Coupling in the Framework of Tsallis Statistics
9	Mouna H M	Chemical Engineering	Prof. Saroj Sundar Baral	A Biohydrometallurgical Approach for Extraction of Metals from Spent Fluid Catalytic Cracking Catalyst
10	Ram Indrajit Chavan	Biology	Prof. Srikanth Mutnuri	Treatment of Nitrogenous Wastewater by Using Microalgae and Its Utilization for The Production of Value-Added Products
11	Harsha V	CS&IS	Dr. Debasis Das Prof. Neena Goveas Prof. Vijay Kumar	Secure and Lightweight Communication using Internet of Vehicles for Smart Transportation
12	Sanjay Laxmikant Joshi	CS&IS	Prof. Bharat M Deshpande	Predicting Reliability in Software Product Development Environment
13	Ranjit Manuel Jude Rodrigues	Humanities and Social Science	Prof. Shalini Upadhyay	A Select Study of Public Speaking Anxiety among Undergraduate students in Non-Professional Colleges in the State of Goa
14	Chithira P R	Physics	Prof. Teny Theresa John	Studies on ZnO and SnO ₂ Based Diluted Magnetic Semiconductors
15	Sebastiao Anthony Rodrigues	Humanities and Social Science	Prof. Reena Cheruvalath	Intra-inter conflicts and sustainability issues in the fisheries of Goa: An environmental ethical Approach
16	Anil Kumar	Economics	Prof. Aswini Kumar Mishra Prof. Debasis Patnaik	Differentials in Health Care services, the Burden of Healthcare and the Need for Comprehensive Social Health Insurance: Evidence from the State of Bihar in India
17	Priya Sharma	Biology	Prof. Srikanth Mutnuri	Nutrient Recovery and Micropollutants Removal from Urine using Microbial Fuel Cell
18	Sreekrishnan V	CS&IS	Prof. Santonu Sarkar	Meta Clouds and Meta Services: Constructing an Abstraction Layer Over Multi-clouds
19	Sindhuja Sen	Chemistry	Prof. Anjan Chattopadhyay	A Computational Investigation of the Photochemical Oxaziridine Conversion and Subsequent Product Formation Pathways of Some Cyclic Nitrene Systems
20	Joseph R D Fernandes	Biology	Dr. Arnab Banerjee	Ameliorating Polycystic Ovarian Syndrome (PCOS) in Rodent Model by an Endogenous Small Molecule and a Peptide Mimic
21	Rehan Ahmed Deshmukh	Biology	Prof. Utpal Roy Prof. Sunil Bhand	Development of Rapid and Sensitive Molecular Methods for the Detection and Quantification of Escherichia Coli in Water
22	Harinder Singh	Humanities and Social Science	Prof. R. P. Pradhan	India's Maritime Goodwill Curve: Prospects and Feasibility Study
Hysderabad Campus				
1	B Madhavi	Chemical Engineering	Dr. Balaji Krishnamurthy Dr. Sanket Goel Dr. Vikranth Kumar Surasani	Development of Novel Bio-Electrodes for Enzymatic Biofuel Cell
2	Srinivasa Rao Singireddi	Chemistry	Dr. K V G Chandrasekhar	Design, Synthesis and Biological Activity of Novel Heterocyclic Compounds as Inhibitors of Bacterial Quorum Sensing and Tuberculosis
3	Shweta Vinod Pawar	Chemistry	Dr. Amit Nag	Detailed Investigation of Nanoscale Light-Matter Interaction for Useful Sensing Applications
4	Karuna Anna Sajeevan	Chemistry	Dr. Durba Roy	Structural and Dynamical Characterization of Conotoxins using Computer Simulations
5	Uday Kumar Togiti	Chemistry	Dr. Anupam Bhattacharya	Synthetic Studies on Nitrogenated Fused Heterocycles and their Applications
6	Agnivesh P	Civil Engineering	Dr. Prasanta Kumar Sahu	Measurement, Aggregation, Modelling, Transferability Analysis and Externalities of Freight (Trip) Generation
7	Athira Gopinath	Civil Engineering	Dr. Bahurudeen A	Utilisation of Rice and Sugar Industry By-Products as Energy Feedstock and Supplementary

S.No	Name	Department	Supervisor / Co-supervisor	Thesis Title
				Cementitious Materials
8	M Jaya Theja	Civil Engineering	Dr. Anasua GuhaRay Dr. Arkamitra Kar	Performance Evaluation of Retaining Walls with Backfill Soils Partially Replaced by Building Derived Materials
9	Vemula Swathi	Civil Engineering	Dr. K Srinivas Raju	Analysing the Linkages between Urban Floods, Climate Change and Land Use – Hyderabad , India
10	Challagulla Surya Prakash	Civil Engineering	Dr. Chandu Parimi	Dynamic Behavior of Primary Structures attached with Flexibly Connected Secondary Systems
11	Rajesh Kumar Shrivastava	Computer Science and Information Systems	Dr. Chittaranjan Hota	Code Tamper-Proofing Using Return Oriented Programming on IoT Devices
12	Surender Singh	Computer Science and Information Systems	Dr. Aruna Malapathi	Identification, Categorization and Summarization of Real-World Events from Twitter
13	Gokul Kannan Sadasivam	Computer Science and Information Systems	Dr. Chittaranjan Hota Dr. Anand Bhojan	Identification of Malicious SSH Network Activities using HoneyNet
14	Saipriya Kamath	Economics & Finance	Dr. Niranjan Swain Dr. Sanjay Kallapur	Essays in Accounting and Auditing
15	Bhavya Singhvi	Economics & Finance	Dr. Niranjan Swain Dr. Sanjay Kallapur	Essays on Topics in Management Accounting
16	Sonia Antil	Economics & Finance	Dr. Niranjan Swain Dr. Mukesh Kumar Dr. K Ramesh	Aspects of Performance of Regional Rural Banks in India: An Empirical Investigation
17	A Mahesh Kumar	Electrical and Electronics Engineering	Dr. M B Srinivas	A Low-Noise, Low-Power System on Chip for Physiological Signal Monitoring
18	Poorna Lakshmi.U	Electrical and Electronics Engineering	Dr. P K Pattnaik	Tunable Waveguide Bragg Grating Filters based on Optical MEMS for DWDM Networks
19	Michael Preetam Raj P	Electrical and Electronics Engineering	Dr. Souvik Kundu Dr. Sumit Kumar Chatterjee	Design of Low Complex Memristive Circuits and Study the Effect of State Transitions for Emerging Electronic Applications
20	Sanjay V	Electrical and Electronics Engineering	Dr. Surya Shankar Dan Dr. Saroj Mondal	Novel Gate-Overlap Tunnel FETs and Their Circuits for Ultra-Low Power VLSI Applications
21	Puneeth S B	Electrical and Electronics Engineering	Dr. Sanket Goel	Development of Robust Electro-Microfluidic Viscometer for Bio-chemical Applications
22	Rupinderjit Kaur	Mathematics	Dr. Sumit Kumar Vishwakarma	Study of Seismic Waves in Anisotropic Layered Medium Containing Inhomogeneity
23	Nasir Hussain N	Mechanical Engineering	Dr. Srinivasa Prakash Regalla Dr. Y V D Rao	Study of Large Deformations in Automobile Crash Box with Novel Geometric Shapes
24	V Srinivasa Rao	Mechanical Engineering	Dr. Srinivasa Prakash Regalla Dr. Kannan Ramaswamy	Sustainable Design of Clean Room for Micro-electro-mechanical Systems Fabrication and Micro-manufacturing Applications
25	Inturi Vamsi	Mechanical Engineering	Dr. Sabareesh Geetha Rajasekharan Dr. Pavan Kumar Penumakala	Development of an Integrated and Adaptive Condition Monitoring Scheme for Fault Diagnosis in Different Stages of Wind Turbine Gearbox
26	Shanmukhasundaram V R	Mechanical Engineering	Dr. Y V D Rao Dr. Srinivasa Prakash Regalla	Number Synthesis and Structure Based Rating of Multilink Epicyclic Gear Trains Satisfying Gruebler's Degree of Freedom Equation
27	K Limbadri	Mechanical Engineering	Dr. Kurra Suresh Dr. Swadesh Kumar Singh	Effect of Processing Routes on Deformation Behaviour and Microstructural Characteristics of Zircaloy-4
28	Ramalingam Siva Kumar	Mechanical Engineering	Dr. Saravanan Natarajan Dr. Srinivasa Prakash	Modelling and Simulation of an Automated Manual Transmission (AMT) System for Integrated Prognostics of Gearbox and Dry Clutch

S.No	Name	Department	Supervisor / Co-supervisor	Thesis Title
			Regalla	
29	Rimpy Diwan	Pharmacy	Dr. Punna Rao Ravi	Design, Optimization. Pharmacokinetic and Pharmacodynamic Evaluation of Cilnidipine Nanoparticles for Effective Treatment of Hypertension
30	Bhatt Himanshu Narendrakumar	Pharmacy	Dr. Swati Biswas Dr. Balaram Ghosh	Dendrimers for the Targeted Delivery of Chemotherapeutic Agents in Cancer
31	Kirti	Pharmacy	Dr. A Sajeli Begum Dr. Onkar Prakash Kulkarni	Discovery of Pro-Inflammatory Cytokine Inhibitors from Bacterial Strain for the Treatment of Renal Inflammation
32	Cheera Varalakshmi	Physics	Dr. Rahul Nigam	Effect of Primordial Magnetic Field on Early Structure Formation in the Universe
33	Krishna Prakash Nunna	Physics	Dr. Sarmistha Bani	Thermal Effects on the Rotating Neutron Stars
34	Subba Rao Y V	Physics	Dr. Meenakshi V Dr. Aravinda N Raghavan	Controlling Advection and Transport of Vortices Using Obstacles in Passive Micro-mixers: Numerical Simulation and Experiments

2. Ph.D. Thesis Submitted and Under Process of Evaluation

S.No	Name	Department	Supervisor/ Co-supervisor	Thesis Title
Pilani Campus				
1.	Sumita Choudhary	Physics	S. Gangopadhyay Ajay Agarwal	Semiconducting Metal (Cu, Zn) Oxide Nano-structures: Growth Mechanism, Properties and Gas Sensing Application
2.	Sonam Sharma	Chemistry	Bibhas Ranjan Sarkar	Studies in Catalytic C-C Bond Formation Reactions using Palladium-Based Catalyst Systems
3.	Chavi Mahala	Chemistry	Surojit Pande Mrinmoyee Basu	2D Nanosheets of Transition Metal Chalcogenides for Electrochemical and Photoelectrochemical Water-Splitting
4.	Priyanka Kumari	Mathematics	P.H. Keskar	Difference Sets and Their Applications
5.	Namita Ruparel	HSS	Rajneesh Choubisa	(Re) Thinking Positive Workplace/s: A Multisectoral Cross-Sectional Investigation
6.	Pradeep Kumar Yadav	Physics	Biswanath Layed	Theoretical Studies of a Few Pulsar Observables
7.	Ashis Kumar Pal	Physics	Tapomoy Guha Sarkar	Probing cosmological dark matter and dark energy using post reionization neutral intergalactic
8.	Kiran Raj K.	Mechanical	Murali Palla	A Study of Mechanical Behavior of Bioinspired Composites Using Continuum and Atomistic Models
9.	Gokhale Nitish Pandurang	Mechanical	Prateek Kala Murali Palla	Development and Experimental Investigation of the TIG Based Wire and Arc Additive Manufacturing (WAAM) Process for Metal Deposition
10.	Sangram Keshari Das	Mechanical	BK Rout	Some Investigations on Vision Based Detection and Tracking of Mobile Robot During Navigation in Structured Environment
11.	Gaurav Nagpal	Management	Udayan Chanda	Inventory Modelling and Optimization for High Technology Products with Successive Generations
12.	Dilawar Ahmad Bhat	Management	Udayan Chanda Anil K. Bhat	Essays on Bank Leading Behaviour and Non-Performing Assets in the Indian Banking System
13.	Vijaykumar Pundlik Sonawane	Mechanical	M.K. Soni	Techno-Economic and Environmental Assessment of Some Electrical Demand Side Management Options
14.	Shivangi Priya	HSS	Pushp Lata Narayan Choudhary	Language Maintenance and Shift of the Maithili Language after its Inclusion in the Eighth Schedule: A Case Study
15.	Himanshu Seth	Management	Dr. Sauraby Chadha Dr. S.K. Sharma	Working Capital Management: An Empirical Evidence from Indian Manufacturing Sector

S.No	Name	Department	Supervisor/ Co-supervisor	Thesis Title
16.	Vimal Kumar Madduluri	Chemistry	A.K.Sah	Synthesis of glucopyranosylamine derived glycoconjugates and their applications in inorganic and medicinal chemistry
17.	Yogendra Sharma	Mathematics	Sumanta Pasari	Measuring and Modeling Curstal Deformation Along the Himalayan Arc
18.	Neha Gupta	Econ & Fin	Arya Kumar	Dynmics of Financial Crises and Role of Investor Sentiments - Indian Context
Dubai Campus				
1	Cherish Mani	Mechanical Engineering	Prof. R Karthikeyan	The analysis of dissimilar metal weld joints of Monel 400 to stainless steel 316L by GTAW process
2	K.Nithya	Computer Science	Prof. B. Vijayakumar	Design, Analysis and Implementation of Algorithms for Allocation, Storage and Retrieval of Distributed Multimedia Data
3	B. Sasikumar	Computer Science	Prof. B. Vijayakumar	Design and Development of Dynamic Data Replication Strategies for a Distributed Cloud Based System
4	Mukesh Singh Tomar	Mechanical Engineering	Dr Shashank Khurana	Effect of Passive Fire Protection on Road Tunnel Fire Environment
Goa Campus				
1	Godinho Aloysius Querobino	Mathematics	Prof. Tarkeshwar Singh	Studies In Neighbourhood Magic Graphs
2	Phadte Apeksha Ashok	Chemistry	Dr. Subhadeep Banerjee	Heteroaromatic Push-Pull Molecules - Dibenzodioxins, Phenazines, Porphyrins: Design, Synthesis, Electronic Properties And Antitumor Activity
3	Bibhudutta Mishra	Biological Sciences	Dr. Raviprasad Aduri	Relating Rna And Protein Structure Variation With Pathogenicity And Screening For Small Molecules With Pan-Serotype Activity In Dengue: A Bioinformatics Study
4	Dileep Maarisetty	Chemical Engineering	Prof. Saroj Sundar Baral	The Effect Of Point Defects On Semiconductor Photocatalytic Behaviour
5	Krishna Kumari Swain	Chemistry	Prof. Sunil Bhand	Development Of Miniaturized Enzyme Nanoprobes For Analysis Of Heavy Metal Ions In Water And Seafood Using Optical Biosensors
6	Shah Parth Mukeshbhai	Mathematics	Prof. Gauranga C. Samanta Dr. Mayank Goel	Study On Various Cosmological Models Using Dynamical Systems
7	Trupil Gordhanbhai Limbasiya	CS&IS	Prof. Sanjay Kumar Sahay Dr. Debasis Das	Design of Vehicular Communication Protocols for Secure and Efficient Smart Transportation
8	Zaiba Hasan Khan	Biological Sciences	Prof. Rajesh Mehrotra	Genome-wide Analysis of AAAG-ACGT <i>Cis</i> -elements Across Plant Genomes and Its <i>In-silico</i> Characterization using Protein Phosphatase 2A (PP2A) Promoter from <i>Arabidopsis thaliana</i>
9	Guruprasad V. Talekar	Biological Sciences	Dr. Srikanth Mutnuri	Design And Development Of Hybrid Electrochemical System For Decentralized Wastewater Treatment
Hyderabad Campus				
1	Pavankumar Mujawdiya	Biological Sciences	Dr. Suman Kapur	High-Fat Diet-Induced Intestinal Permeability and Protective Role of Plant Extracts (Polyphenols and/or Alkaloids)
2	Sonal Saxena	Biological Sciences	Dr. Naga Mohan	Understanding the roles of DNA Methyltransferase 1 (Dnmt1) overexpression and 15q11.2 Copy Number Variants (CNVs) in Schizophrenia
3	Aparna S	Chemical Engineering	Dr. D. Purnima Dr. Ramesh Babu Adusumalli	Study of Carbon Fibre Reinforced PA6/PP Blend Based Composites: Processing and Characterization
4	Nalluri Srinivasa Rao	Chemistry	Dr. Balaji Gopalan	Novel Synthetic Strategy and Reagents for the Synthesis of Gold Nanoparticles and Catalytically Active Fe ₃ O ₄ @M (M = Au, Ag, Pd and AuAg)

S.No	Name	Department	Supervisor/ Co-supervisor	Thesis Title
				Alloy) Core-Shell Nanostructures
5	Neha Singh	Computer Science and Information Systems	Dr. Tathagata Ray Dr. Chandu Parimi	Input Size Independent Quality Mesh Generation from Two-Dimensional Point Cloud Data
6	Sanket Mishra	Computer Science and Information Systems	Dr. C R Hota	Cognitive and Resilient Framework for IoT Data Streams
7	Rashmi Sahay	Computer Science and Information Systems	Dr. G. Geethakumari Dr. Barsha Mitra	Securing the Internet of Things Environment against RPL Attacks
8	Chithajalu Kiran Sagar	Mechanical Engineering	Dr. Amrita Priyadarshini Dr. Amit Kumar Gupta	Experimental Study and Finite Element Analysis of Machining Behaviour of Tungsten Heavy Alloys
9	Mohd Abdul Wahed	Mechanical Engineering	Dr. Amit Kumar Gupta Dr. Nitin Kotkunde	Study of Deformation Behaviour, Processing Maps and Springback Behaviour in Ti-6Al-4V Alloy at High Temperatures
10	Kiran Kumar Alluri	Pharmacy	Dr. D. Sriram	Synthesis and Antimycobacterial Evaluation of Novel Spiro/Fused Compounds
11	Parameshwar Reddy A	Pharmacy	Dr. P Yogeeswari	Prototypical Leads Useful for the Treatment of Neurological and Other Disorders: Synthesis and Structure-Activity Relationship Studies
12	Sridhar Jogula	Pharmacy	Dr. D. Sriram	Design and Synthesis of Pseudomonas aeruginosa DNA Gyrase Inhibitors

3. Research Contributions through Higher Degree Dissertations

A total of **241** Dissertation Projects have been carried out by higher degree M.E./M.Pharm students across campuses. The list is given in **Annexure - 2**.

4. Research Contributions through First Degree Thesis

A total of **757** students have completed their First-Degree thesis. The thesis course is a one-semester full time course which can be done on-campus and off-campus. Faculty members of the Institute, scientists from R&D labs and other professionals also supervise the thesis work across campuses. The complete list is given in **Annexure - 3**.

5. PhD Qualifying Examinations

All PhD candidates before taking up the doctoral research have to appear and pass a PhD Qualifying examination. The PhD qualifying examination is conducted in the sub areas identified by each department for this purpose. A PhD student has to choose two subareas for his/her qualifying examination. One of these areas must be the sub-discipline in which he/she proposes to undertake research. Faculty members of the Institute and professionals from the world-of-work may be permitted to appear in the qualifying examination even before completing the formalities of PhD admissions.

In the year 2020, a total of **327** candidates were permitted to appear in the Qualifying examination. The details are provided below:

Semester	Permitted to appear in Qualifying Exam	Appeared	Passed	Failed
II Semester 2019-20	158	158	140	18
I Semester 2020-21	169	169	156	13
Total	327	327	296	31

6. Research Publications

Faculty members have published several research papers in International and National Journals & Conference proceedings. **Annexure 4 & 5** lists the research publications in journals, books, books chapters & other publications. List of faculty members who presented papers at various conferences, delivered invited talks are given in **Annexure 6**.

7. New Doctoral Research Topics / Supervisors Approved

This year, **two hundred and fifty five (255)** research proposals were approved by the DCC. Besides approving the topic of research, the DCC also approves the proposed supervisors for guiding the research. The details of approved topics/supervisors are given below:

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
Pilani Campus					
1.	Sugandha 2018PHXF0024P	Fractional Calculus based Soft Computing Techniques and their Applications	Dr. Trilok Mathur	Dr. Kamlesh Tiwari	BITS Pilani- Pilani Campus
2.	Astajyoti Behera 2018PHXF0508P	Study the Implications of Buyer-Supplier Relationship on Supply Chain Performance: An Empirical Analysis in Indian Business Environment	Prof. Srikanta Routroy	Dr. Sudeep Kumar Pradhan	Evalueserve Gurgaon
3.	Ankit Agrawal 2018PHXF0509P	Development of Deep localization strategies for Solar Photovoltaic (PV) Supply chain in Indian scenario	Prof. Bijay Kumar Rout	Dr. Sudeep Kumar Pradhan	Solar Energy Corp. of India Ltd., New Delhi
4.	Prasun Mukherjee 2018PHXF0105P	Reliability Modelling and Life-Cycle Cost Optimisation of Oil and Gas Mining Equipment	Prof. Bijay Kumar Rout	-	Mehsana Oil Field and Natural Gas Corpn. Ltd., Mehsana
5.	M Jaya Kumar Bhaskar 2018PHXF0420P	Investigation on the Seismic Behaviour of Masonry Infill Walls Strengthened With Textile Reinforced Mortar	Prof. Dipendu Bhunia	Dr. Lampros Koutas, Univ. of Thessaly, Greece	BITS Pilani- Pilani Campus
6.	Amul Batra 2018PHXF0505P	Design and Development of computer vision based real time image enhancement techniques	Dr. Meetha V. Shenoy	-	Ministry of Civil Aviation, Delhi
7.	Sankalp Paliwal 2018PHXF0434P	Design, Fabrication and Control of a Resonant Pressure Sensor	Dr. Sujan Yenuganti	-	BITS Pilani- Pilani Campus
8.	Rajesh Pradhan 2018PHXF0047P	Development and Evaluation of Drug Loaded Nano-formulation for the Treatment of Triple Negative Breast Cancer	Dr. Sunil Kumar Dubey	Dr. Rajeev Taliyan	BITS Pilani- Pilani Campus
9.	Manisha Vinayak Choudhari 2019PHXF0055P	Investigating the effect of suitable excipient to design better delivery system for selected drug	Prof. R.N. Saha	Dr. Sunil Kumar Dubey	BITS Pilani- Pilani Campus
10.	Rupesh Sanjaykumar Jain 2018PHXF0038P	Formulation Development and Evaluation of Lipid Based Nanocarrier for Skin Cancer by Using Photodynamic therapy	Dr. Sunil Kumar Dubey	Dr. Gautam Singhvi	BITS Pilani- Pilani Campus
11.	Tejashree Waghule 2017PH460287P	Design and evaluation of lipid based nanocarrier delivery systems for selected drugs	Prof. R.N. Saha	Dr. Gautam Singhvi	BITS Pilani- Pilani Campus
12.	Amritansh Bhanot 2018PHXF0040P	Design, synthesis and in-vitro anti-plasmodial screening of novel bisquinazolines and quinazoline-based hybrids	Dr. Sandeep Sundriyal	-	BITS Pilani- Pilani Campus
13.	Nikita Subhash Hinge 2018PHXF0041P	Design and characterization of nanocarrier based intranasal delivery system for effective treatment of Alzheimer's disease	Dr. Murali Monohar Pandey	-	BITS Pilani- Pilani Campus
14.	Prem Prakash Singh 2019PHXF0302P	Design and evaluation of novel ophthalmic formulations of selected drugs	Prof. R.N. Saha	Dr. Gautam Singhvi & Dr. Girish Jain	Slayback India LLP, Hyderabad

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
15.	Shantanu Damle 2019PHXF0301P	Studies on use of certain excipients for better delivery and therapeutic efficacy of selected drugs	Prof. R.N. Saha	Dr. Ali Rajabi Siahboomi	Colorcon Asia Pvt. Ltd Verna, Goa
16.	Prabhjeet Singh 2018PHXF0044P	Actively targeted nano-carrier system for the co-delivery of Temozolomide and an autophagy modulator for the treatment of glioblastoma multiforme	Dr. Deepak Chitkara	Dr. Gaikwad Anil Bhanudas	BITS Pilani- Pilani Campus
17.	Arihant Kumar Singh 2018PHXF0039P	Combination delivery of C-peptide and lisofylline for the treatment of diabetic nephropathy	Dr. Anupama Mittal	Dr. Deepak Chitkara	BITS Pilani- Pilani Campus
18.	Moumita Basak 2018PHXF0043P	Human umbilical cord blood derived mesenchymal stem cells (hUCBMSC) derived exosomes as nanovesicles for delivery of anti-cancer molecules in breast cancer	Dr. Anupama Mittal	-	BITS Pilani- Pilani Campus
19.	Deepak Kumar Sahel 2018PHXF0037P	Actively Targeted CRISPR/Cas9 Ribonucleoprotein (RNP) Loaded Polymeric Nanoplexes for Genome Editing in the Treatment of Wet age-related Macular Degeneration	Dr. Deepak Chitkara	Dr. Anupama Mittal	BITS Pilani- Pilani Campus
20.	Gorantla Srividya 2018PHXF0414P	Targeted delivery of anti-inflammatory drugs using lipid-based nanocarrier systems for the treatment of rheumatoid arthritis (RA)	Dr. Gautam Singhvi	Prof. R.N. Saha	BITS Pilani- Pilani Campus
21.	Anubhav Tiwari 2017PHXF0107P	Design of Construction Supply Chain for Reduction of Project Cost and Duration: A Study on Indian Road Projects	Dr. Prasanta Kumar Sahu	Prof. Srikanta Routroy	PNC Infratech Ltd., Agra
22.	Vishal Singh 2018PHXF0012P	Stability and Failure Analysis of Three-phase laminated composite plate	Dr. Rajesh Kumar	-	BITS Pilani- Pilani Campus
23.	Upendra Singh 2017PHXF0428P	Scheduling and Access Management strategies and a framework for efficient Machine-to-Machine (M2M) Communication	Dr. Amit Dua	-	BITS Pilani- Pilani Campus
24.	Divya Bhardwaj 2018PHXF0013P	Automatic Concealed Weapon Detecting using Multi-Sensor Images for Surveillance of Public Places	Dr. J. Jennifer Ranjani	-	BITS Pilani- Pilani Campus
25.	Ankit Soni 2018PHXF0016P	Design and Implementation of Coordination Algorithms for Multi-Robot System under Communication Range Restrictions	Dr. Avinash Gautam	Dr. Virendra Singh Shekhawat	BITS Pilani- Pilani Campus
26.	Saumya Arora 2017PHXF0439P	Molecular Characterization of Induced Systemic Tolerance by PGPR in wheat (<i>Triticum aestivum</i> L) under Drought Stress	Prof. P.N. Jha	-	BITS Pilani- Pilani Campus
27.	Sumukh Thakar 2017PHXF0437P	Understanding the epigenetic landscape of endothelial inflammation during diabetes	Dr. Syamantak Majumder	-	BITS Pilani- Pilani Campus
28.	Aishwarya Singh 2018PHXF0002P	Characterization of membrane transport proteins and their interacting partners involved in plasmodium pathogenesis	Prof. Vishal Saxena	Prof. Shilpi Garg	BITS Pilani- Pilani Campus
29.	Stuti Chug 2017PHXF0407P	Design and implementation of real time algorithms for motor imagery task classification using electroencephalogram (EEG) signals	Dr. Vandana Agarwal	-	BITS Pilani- Pilani Campus

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
30.	Prawal 2018PHXF0701P	An intuitive, multimodal, semantographic computer-mediated communication (CMC), through Machine Learning (ML) and Natural Semantic Metalanguage (NSM); Towards digital inclusion of semi-literate Indian personas	Prof. Navneet Goyal	Prof. Vinay MR	Infosys Ltd., Pune
31.	Shilpi Kalwani 2018PHXF0429P	Investigating the Antecedents of Wellbeing in Future Workplaces: Role of Mindfulness	Dr. Jayashree Mahesh	Prof. Anil K. Bhat	BITS Pilani- Pilani Campus
32.	Neha Mathur 2018PHXF0045P	Statistical Mechanics of RNA Folding	Prof. Navin Singh	Prof. Shibashis Choudhury	BITS Pilani- Pilani Campus
33.	Venkatesh Sarvasiddhi 2018PHXF0102P	Impact of Higher Education and Skill Development on Employment Generation and Socio-Economic Development	Prof. NVM Rao	Dr. Geetilaxmi Mohapatra	BITS Pilani- Pilani Campus
34.	Prateek Sharma 2018PHXF501P	Process design and integration of refuse derived fuel (RDF) gasification in cement manufacturing process	Prof. Pratik N. Sheth	Dr. Bibekananda Mohapatra	National Council for Cement & Building Materials, Faridabad
35.	Nikhil S. Agrawal 2018PHXF0502P	Performance evaluation of marble dust incorporated concrete	Prof. Anshuman	Prof. R.N. Khapre & Dr. Manpreet Singh	Shri Ramdeobaba College of Engineering & Management Nagpur
36.	Srishti Khare 2019PHXF0019P	Qualitative Gradation and Extraction of heavy metal from MSW City Compost of Indian cities using biodegradable chelating agents	Prof. Anupam Singhal	-	BITS Pilani- Pilani Campus
37.	Sudheer Mathur 2018PHXF0503P	Groundwater quality management along the Luni river basin in Balotra Region of Rajasthan, India	Prof. Ajit Pratap Singh	Prof. S.K. Singh	Balotra Waster Pollution Control Treatment & Research Foundation Trust, Balotra
38.	Anil Kumar K 2018PHXF0438P	Design and Optimization of Packed Bed Column for the Continuous Removal of Pollutants using a Nanosized Sorbents Immobilized Porous Support	Prof. Suresh Gupta	Prof. Jitendra Panwar	BITS Pilani- Pilani Campus
39.	Ajita Neogi 2018PHXF0004P	Particle Image Velocimetry (PIV) Investigation of the Hydrodynamics of a Bench-scale Fluidized Bed of Geldart A Particles	Dr. P.C. Sande	Prof. Hare Krishna Mohanta	BITS Pilani- Pilani Campus
40.	Chandrachud Bijay Vaswar Dash 2018PHXF0046P	Constraining dark energy models using cosmological probes of the intergalactic medium	Dr. Tapomoy Guha Sarkar	-	BITS Pilani- Pilani Campus
41.	Ansari Imrak Kaimudin 2018PHXF0430P	Multi-functional non-viral cationing lipo-polymeric vectors complexed CRISPR/Cas9 Tools for genome editing application	Dr. Deepak Chitkara	-	BITS Pilani- Pilani Campus
42.	Kedar Shridhar Prayag 2018PHXF0427P	Lipidic nano-carriers for targeted delivery of anti-trypanosomal drugs for improved treatment of trypanosomiasis	Dr. Anil Jindal	Dr. Atish Paul	BITS Pilani- Pilani Campus
43.	Amit Kumar Sharma 2018PHXF0506P	Investigation of Drivers for Gaining Customers through Loyal Showrooming	Dr. Nirankush Dutta	-	Future Market Networks Ltd., Mumbai
44.	Sajan 2018PHXF0433P	Study of Dynamical Behavior of Some Biological Species using Mathematical Modelling and Numerical Simulation	Prof. Balram Dubey	-	BITS Pilani- Pilani Campus

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
45.	Chandan Kumawat 2018PHXF0421P	Mathematical Analysis of Heat and Mass Transfer for Blood Flow of Nano-fluid through Curved Artery with/without Stenosis and Variable Viscosity	Prof. B.K. Sharma	-	BITS Pilani- Pilani Campus
46.	Neha 2018PHXF0423P	Crustal Deformation Analysis in the Himalayan Region using Spatio-Temporal Techniques	Dr. Sumanta Pasari	-	BITS Pilani- Pilani Campus
47.	Swati Goyal 2018PHXF0409P	Data Envelopment Analysis Models of Benchmarking to Improve Public Transport Sector	Dr. Shivi Agarwal	Dr. Trilok Mathur	BITS Pilani- Pilani Campus
48.	Riya Jain 2018PHXF0422P	Hybridizable Discontinuous Galerkin Method for Partial Differential Equations	Dr. Sangita Yadav	-	BITS Pilani- Pilani Campus
49.	Soham Chatterjee 2018PHXF0413P	Electronic Properties and Applications of the Supported Clusters, Nanotubes and Graphene: A Density Functional Investigation	Prof. Debashis Bandyopadhyay	-	BITS Pilani- Pilani Campus
50.	Ankita Daiya 2018PHXF0003P	Analysing epigenetic alterations and its functional contribution to drug tolerance in tumour cells	Dr. Sudeshna Mukherjee	Prof. Shibasish Chowdhury	BITS Pilani- Pilani Campus
51.	Sonia Narwal 2018PHXF0001P	Investigating the genetic and molecular interaction of α -Synuclein and parkin in context to mitochondrial dynamics in <i>Drosophila melanogaster</i> model of Parkinson's Disease	Dr. Meghana Tare	Prof. Amit Singh	BITS Pilani- Pilani Campus
52.	Geoffrey Bryan Fernandez 2018PHXF0425P	Digital Storytelling and Culture: Investigating Video Game Narratives as Palimpsest for Disseminating Culture, History, and Identity	Dr. Kumar Sankar Bhattacharya	-	BITS, Pilani – Pilani Campus
53.	Sisir Kumar Yadav 2019PHXF0030P	Design and Performance Analysis of Unified Power Quality Conditioner (UPQC) for Power Quality Improvement in Smart Distribution Network	Prof. Hitesh Datt Mathur	-	BITS, Pilani – Pilani Campus
54.	Pavitra Sharma 2019PHXF0027P	Design and Development of Smart Community Microgrid based on Cyber-Physical Framework with Stationary and Mobile Storages for Power Balancing	Prof. Hitesh Datt Mathur	-	BITS, Pilani – Pilani Campus
55.	Neha Meena 2018PHXF0416P	Synthesis of imidazoheterocycles using transition metal-catalyzed C-H functionalization	Prof. Anil Kumar	-	BITS, Pilani – Pilani Campus
56.	Divya Rathore 2018PHXF0435P	Effect of doping on transition metal chalcogenides for the electrocatalytic water-splitting reaction	Prof. Surojit Pande	-	BITS, Pilani – Pilani Campus
57.	Linisha Biswal 2019PHXF0010P	Preparation of hydrophilic polymer immobilized metal organic frameworks (MOFs) and its application in fluoride and heavy metals removal from groundwater	Dr. Somak Chatterjee	-	BITS, Pilani – Pilani Campus
58.	Sampada Mahajan 2017PH010037P	Agricultural residue-based carbonaceous materials for the hydrothermal conversion of agricultural residues to sugar and other eco-friendly applications	Prof. Arvind Kumar Sharma	Prof. Banasri Roy, BITS Pilani, Pilani Campus & Prof. Yukihiko Matsumura, Hiroshima University, Japan	BITS Pilani, Pilani Campus

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
59.	Rachael Jovita Barla 2019PHXF006P	Experimental and Theoretical Investigations of Non-Photosynthetic Bio-Mitigation of Flue Gas (CO ₂ , SO _x , and NO _x by Chemolithotrophs in the Bioreactor System	Prof. Smita Raghuvanshi		BITS, Pilani – Pilani Campus
60.	K.V.D.Ganesh Kumar 2019PHXF010P	Risk and Failure Analysis for Improved Reliability and Safety in Electrical and Electronic Control Apparatus on Transportation Application with Emphasis on Metro Trains Doors Operations and Propulsion Systems	Dr. Sujan Yenuganti	-	BITS, Pilani – Pilani Campus
61.	Gorla Praveen 2019PHXF002P	Resource dimensioning and management of smart and sustainable 5G small cells for rural broadband	Dr. Vinay Chamola		BITS, Pilani – Pilani Campus
62.	Radha Bhardwaj 2019PHXF003P	Development of functionalized 2D nanomaterial based FET sensors system for breath analysis applications	Dr. Arnab Hazra		BITS, Pilani – Pilani Campus
63.	Uttam Narendra Thakur 2019PHXF010P	Design and development of portable electronic nose based on multi-doped metal oxides sensors array for noninvasive detection of pulmonary diseases through breath analysis	Dr. Arnab Hazra	Dr. Pawan K. Ajmera	BITS, Pilani – Pilani Campus
64.	Raja Srivastava 2017PHXF050P	Identification of Socioeconomic Determinants of Road Accidents and Impact: Study of Uttar Pradesh	Dr. Arun Kumar Vaish	Prof. NVM Rao	BITS, Pilani – Pilani Campus
65.	Danish Fayaz 2018PHXF0402P	Non-Linear Dynamic Instability of Laminated Composite Cracked Shell Panels	Dr. S.N. Patel	-	BITS Pilani – Pilani Campus
66.	Ashish Katyal 2017PHXF0101P	Implementation and Impact of Integrated Course Design using Fink's Taxonomy of Significant Learning and Small-group Strategies in a University Undergraduate Biology Curriculum	Dr. Manoj Kannan	Dr. L. Dee Fink, Dee Fink & Associates, LLC, Oklahoma, USA	BITS Pilani – Pilani Campus
67.	Palak Sangal 2018PHXF0441P	Characterization of Proteins Involved in Apoptotic Machinery from Plasmodium	Prof. Shilpi Garg	Prof. Vishal Saxena	BITS Pilani – Pilani
68.	Aniruddha Tangirala 2019PHXF0017P	Performance of High Strength Basalt-Polypropylene Hybrid Fibre Reinforced Concrete at Ambient and Elevated Temperatures	Dr. Mukund Lohati	-	BITS Pilani – Pilani Campus
69.	Abhishek Vyas 2018PHXF0407P	Improved Techniques for Automatic Detection of Ophthalmic Diseases	Dr. Sundaresan Raman	Dr. Rajiv Raman, Sankara Nethralaya, Chennai	BITS Pilani – Pilani Campus
70.	Anuj Adhikari 2019PHXF0018P	Design Framework for Face-Reinforced Tunnel in Difficult Ground Conditions	Dr. Nishant Roy	-	BITS Pilani – Pilani Campus
71.	Punita Raj 2018PHXF0428P	Living the moment: Capturing the Critically Decisive and Strategic Maneuvering of 21st Century War Front Competencies in the Selected War Adaptations	Prof. Devika	-	BITS Pilani – Pilani Campus
72.	Rishi Parvanda 2019PHXF0048P	Development of a Rapid Tooling (RT) Technique for Manufacturing Electrical Discharge Machining (EDM) Electrode Using Low Melting Point Alloy	Dr. Prateek Kala	-	BITS Pilani – Pilani Campus

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
73.	Aman Takiyar 2018PHXF0403P	Assessing the Impact of Economic Globalization on Economic Growth: An Empirical Evidence from Developed and Developing Countries	Prof. N.V. Muralidhar Rao	-	BITS Pilani – Pilani Campus
74.	Amrit Kumar 2019PHXF0063P	Studies on thin films of organic and nanomaterials at interfaces and applications	Dr. Raj Kumar Gupta	-	BITS Pilani – Pilani Campus
75.	Sumitra 2019PHXF447P	Design of Techniques and Architecture Models for Managing Network Flow and Privacy Issues in IoT Networks	Dr. Meetha V. Shenoy	-	BITS Pilani – Pilani Campus
76.	Shashi Kant Sharma 2019PHXF0503P	Energy Efficient Hardware Architectures for Machine Learning Algorithms	Prof. Anu Gupta	Dr. Kota Solomon Raju, CEERI Pilani	B.K. Birla Institute of Engineering & Technology, Pilani
77.	Siddhartha D 2019PHXF0107P	Assessing the environmental impact mitigation and economic analysis of using Battery Energy Storage Systems to meet the demand-side management of electricity consumption in India	Prof. P. Srinivasan	-	BITS Pilani – Hyderabad Campus
78.	Meghana 2019PHXF0039P	Virtual element method (VEM) for Partial Differential Equations	Dr. Sangita Yadav	-	BITS Pilani – Pilani Campus
79.	Rishu Gandhi 2019PHXF042P	Modeling and Analysis of Nanoparticles Enabled Drug-Delivery in Human Vascular System	Prof. B.K. Sharma	-	BITS Pilani – Pilani Campus
80.	Komal 2019PHXF0041P	Generalized Fractional Differintegral Equations and Their Applications in Mathematical Modeling of Socioeconomic and Epidemiologic Problems	Dr. Trilok Mathur	-	BITS Pilani – Pilani Campus
81.	Sarita 2018PHXF0439P	Forecasting of Renewable Energy using Statistics and Machine Learning	Dr. Sumanta Pasari	Prof. Rakhee	BITS Pilani – Pilani Campus
82.	Sanjiv Kumar Bariwal 2019PHXF0043P	Mathematical and Numerical studies for Integro-Partial Differential Equations	Dr. Rajesh Kumar	-	BITS Pilani – Pilani Campus
83.	Raveena 2019PHXF0044P	A Study of Non-rectangular Floor-plans: Graph Theoretic Approach	Dr. Krishendra Shekhawat	-	BITS Pilani – Pilani Campus
84.	Ashish Khare 2019PHXF0047P	Droplet Thermo-fluidics for Engineering Applications	Dr. A.R. Harikrishnan	-	BITS Pilani – Pilani Campus
85.	Ajinath Vishwanath Kale 2019PHXF0452P	Klotho regulation as a novel therapeutic strategy against acute kidney injury-diabetes comorbidity: Impact of epigenetic driven and epigenetic independent reactivation of endogenous Klotho expression	Prof. Gaikwad Anil Bhanudas	-	BITS Pilani – Pilani Campus
86.	Sharyu Kesharwani 2019PHXF0051P	Design and Synthesis of inhibitors of 1-deoxy-D-xylulose-5-phosphate reductoisomerase (DXR) and Mycobacterium tuberculosis Uracil DNA glycosylase (MtUng or UDG) as potential antimicrobial agents	Dr. Sandeep Sundriyal	-	BITS Pilani – Pilani Campus
87.	Amit Sharma 2019PHXF0050P	Design, Synthesis and Evaluation of Dual Inhibitors of β -secretase and Acetylcholinesterase	Prof. Hemant R. Jadhav	-	BITS Pilani – Pilani Campus
88.	Reena 2019PHXF0072P	Development and evaluation of Temozolomide-fatty acid conjugate loaded nano-carriers for the treatment of Glioblastoma Multiforme	Dr. Deepak Chitkara	-	BITS Pilani – Pilani Campus

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89.	Mahipal Reddy Donthi 2019PHXF0054P	Formulation and Evaluation of Lipid-emulgel for the Treatment of Rheumatoid Arthritis	Prof. R.N. Saha	Dr. Sunil Kumar Dubey	BITS Pilani – Pilani Campus
90.	Karnam Sriravali 2019PHXF0071P	TF and Natural Products Loaded Topical Lipid Nanoformulation for Treatment of Rheumatoid Arthritis	Dr. Paul Atish Tulshiram	Dr. Anil Jindal	BITS Pilani – Pilani Campus
91.	Maravajjala Kavya Sree 2019PHXF0053P	Development of a pH sensitive nano-formulation for combined chemo-immunotherapy of cancer	Dr. Aniruddha Roy	Dr. Gautam Singhvi	BITS Pilani – Pilani Campus
92.	Prashant Savleram Auti 2019PHXF0057P	Design, Synthesis and Evaluation of Heterocyclic Analogues as Pancreatic Lipase Inhibitors for Obesity Treatment	Dr. Paul Atish Tulshiram	-	BITS Pilani – Pilani Campus
93.	Atharva Rajendra Bhide 2019PHXF0058P	Polymeric nanoparticles for targeted delivery of antimalarial drugs	Dr. Anil B. Jindal	-	BITS Pilani – Pilani Campus
94.	N. Saibhargav 2019PHXF0052P	Bioengineered composite scaffold containing Asiaticoside and Neurotensin for effective treatment of diabetic wounds	Dr. Anupama Mittal	-	BITS Pilani – Pilani Campus
95.	Suchitra Pandey 2019PHXF0025P	Climate Change impact on Freshwater Resources: Challenges for Sustainable Development in Rajasthan	Dr. Geetilaxmi Mohapatra	Dr. Rahul Arora	BITS Pilani – Pilani Campus
96.	Poonam Mulchandani 2019PHXF0026P	Mispricing of Indian Initial Public Offerings: Issues and Evidence	Dr. Rajan Pandey	Dr. Byomakesh Debata	BITS Pilani – Pilani Campus
97.	Anukshka Verma 2019PHXF0069P	ICT Diffusion, Financial and Economic Development in SAARC Countries: Issues and Evidences	Prof. Arun Kumar Giri	Dr. Byomakesh Debata	BITS Pilani – Pilani Campus
98.	Sumit Kumar Mandal 2019PHXF0001P	Biochemical screening and evaluation of potential pharmacological molecules towards treatment of obesity and associated liver disorders	Prof. P.R. Deepa	Prof. S. Murugesan	BITS Pilani – Pilani Campus
99.	Simran Krishnakant Kushwaha 2018PHXF0406P	Characterisation and repurposing of the CRISPR-Cas system in salmolella	Dr. Sandhya Amol Marathe	Dr. Franklin L. Nobrega, University of Southampton, UK	BITS Pilani – Pilani Campus
100.	Ankita Sharma 2019PHXF0006P	Understanding hyperglycemia-induced epigenetic alterations contributing to drug resistance and progression of human pancreatic cancer	Prof. Rajdeep Chowdhury	Prof. Gaikwad Anil Bhanudas	BITS Pilani – Pilani Campus
101.	Vasudev Singh Sengar 2019PHXF0046P	Isogeometric Analysis of Smart Composite Sandwich Structures	Dr. Gaurav Watts	-	BITS Pilani – Pilani Campus
102.	Ashutosh Dwivedi 2019PHXF0104P	Study of Determinants of M&A Activity in India and Related Pricing Adjustments	Dr. Saurabh Chadha	-	Ernst & Young LLP, Gurgaon
103.	J. Krishna Manasvi 2019PHXF0036P	A study on post-harvest losses of the Mango Supply Chain in Hyderabad, YadadriBhuvanagiri and Jangaon districts of Telengana	Dr. Rajesh Matai	-	BITS Pilani – Pilani Campus
104.	Neha Sharma 2019PHXF0038P	Exploring the Effect of Technology on the Purchase Decision Making Process of Omni-channel Shoppers	Dr. Nirankush Dutta	-	BITS Pilani – Pilani Campus
105.	Mukesh Budaniya 2019PHXF0436P	Assessment of Indoor Plants for Improving Air Quality in Buildings	Dr. Aakash Chand Rai	-	BITS Pilani – Pilani Campus
106.	Aruna Gupta 2019PHXF0403P	Study of The Defects, Dephasing Mechanisms and Spin Transport on Nanoscale Devices by using NEGF Approach	Prof. Niladri Sarkar	-	BITS Pilani – Pilani Campus

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Dubai Campus					
1.	Neena Susan Shaji 2019PHXF0004U	Effective Implementation of SDN in Wireless Networks and Safeguarding Centralized SDN Controller from various Malicious Attacks	Dr.Raja Muthalagu.	-	BITS Pilani, Dubai campus
2.	Sree Lakshmi Babu 2018PHXF0908U	Characterization of toxicity in institutional sewage and its life cycle assessment – Case study of specific educational institutions.	Dr. Ajit Pratap Singh	Dr. Eldhose lype	BITS Pilani, Dubai campus
3.	Syama K 2019PHXF0011U	Omics Data Analysis using Machine Learning Algorithms	Dr. J Angel Arul Jothi	Dr. Namita Khanna	BITS Pilani, Dubai campus
4.	Aparna Raj 2019PHXF0003U	A generic framework for enhancing Smart City applications using IoT	Dr. Sujala D. Shetty	Dr. Rahul Chengot Sankaramenon	BITS Pilani, Dubai campus
5.	Kesanam Priyasudha 2019PHXF0010U	Bio-Corrosion Studies on novel magnesium-based alloys for bio-implant applications	Dr. Vincent Shantha Kumar	Dr. Gulshan Kumar	BITS Pilani, Dubai campus
6.	Tania Joseph 2018PHXF0005U	Performance-Based Seismic Study of Structures with Combined Pile Raft Foundation (CPRF)	Dr. Vivek B.	-	BITS Pilani, Dubai campus
7.	Kalpanadevi P 2019PHXF0006U	Simulation studies on investigation of 2D materials for its potential applications	Dr. K. K. Singh	-	BITS Pilani, Dubai campus
8.	Jemi Mathews 2018PHXF0006U	Building Retrofit Study in Hot Desert Climate	Dr. Meghana Charde	-	BITS Pilani, Dubai campus
9.	Sabeena T T P 2018PHXF0001U	A Critical Study of Influential Predictors to Pro-Environmental Behavior among Key Internal Stakeholders of Higher Education Institutions (HEIs): Evidence from the UAE.	Prof. Dr. Shazi Shah Jabeen	Dr. Nitin Simha Vihari	Dubai Pharmacy College, Dubai.
10.	Ravipudi Sudhir 2019PHXF0901U	Stability Analysis of Power System Interconnected with Grid Forming (GFM) converters	Dr. Sunil Thomas	-	BITS Pilani, Dubai campus
11.	Ramya M 2018PHXF0901U	Fabrication of Keratin-based Scaffolds for Potential Tissue Engineering Applications	Dr. Pallab Sanpui	-	BITS Pilani, Dubai campus
12.	Miziya K 2018PHXF0907U	Application of Cognitive Radio in LDACS	Dr. Raja Muthalagu	Dr. Abdul Rajak A.R.	BITS Pilani, Dubai campus
13.	Abhilasha Singh 2018PHXF0906U	Vision Based Path Planning and Trajectory Generation for Robotic Applications using Intelligent Techniques	Dr. V. Kalaichelvi	-	BITS Pilani, Dubai campus
14.	Ashok Kumaravelan K 2017PHXF0002U	A migration model for digitalization of substation automation systems in U.A.E and its associated technical risk analysis on the impact towards digitalization	Dr. R. Gomathi Bhavani	-	BITS Pilani, Dubai campus

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Goa Campus					
1	Karle Suhas Balasaheb 2018PHXF0003G	Studies on the Role of Rice Tonoplast Intrinsic Protein Genes under Abiotic Stress.	Dr. Kundan Kumar	-----	BITS-Pilani,K.K.Birla Goa Campus
2	Nithya K. Gopi 2018PHXF0433G	An Ecophobia Analysis of the Narratives of Ecological Justice Movements in Kerala.	Dr. Rayon K. Alex	----- --	BITS-Pilani,K.K.Birla Goa Campus
3	Ashwin Y 2018PHXF0007G	Proton Exchange Membrane assisted Electrochemical Decomposition of Hydroiodic acid	Dr. Pradeep Kumar Sow	-----	BITS-Pilani,K.K.Birla Goa Campus

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		in Sulphur Iodine Thermochemical Cycle			
4	Amina F 2018PHXF0425G	Experimental and theoretical investigations of Unmixed Combustion (UMC) process for sustained heat transfer to liquids.	Dr. Amol Deshpande	-----	BITS-Pilani, K.K. Birla Goa Campus
5	Afroz Fatima 2018PHXF0404G	Design of Neuromorphic Circuits using Emerging Memory Device	Dr. Abhijit Pethe	-----	BITS-Pilani, K.K. Birla Goa Campus
6	Honey Srivastava 2018PHXF0010G	Preparation of green composites based on natural fibers and investigations of their thermal, physicochemical and mechanical properties.	Dr. Rashmi Chauhan	Dr. Sachin Waigaonkar	BITS-Pilani, K.K. Birla Goa Campus
7	Lokesh Kumar 2018PHXF0014G	Search of Gravitational Waves using Deep Learning Techniques in the Output of Laser Interferometer Gravitational Wave Detector.	Dr. Sanjay K. Sahay	Prof. Snehanu Saha	BITS-Pilani, K.K. Birla Goa Campus
8	Monalisa Anand 2017PHXF0025G	Mathematical modeling and Stability analysis of Diabetes and its associated Diseases.	Dr. P. Danumjaya	----- -	BITS-Pilani, K.K. Birla Goa Campus
9	Sourav Kesharee Sahoo 2018PHXF0033G	Geometric approach for measures of Quantum Entanglement	Dr. Radhika Vathsan	-----	BITS-Pilani, K.K. Birla Goa Campus
10	Sharvari Pradeep Kulkarni 2018PHXF0030G	The study of Spin Seebeck Effect in novel heterostructures.	Dr. Ram Shanker Patel	----- --	BITS-Pilani, K.K. Birla Goa Campus
11	Nivedita Kolvekar 2018PHXF0417G	Studies on Cytotoxic agent(s) from <i>Vipera russelli russelli</i> venom.	Prof. Dibakar Chakrabarty	Prof. Angshuman Sarkar	BITS-Pilani, K.K. Birla Goa Campus
12	Vivek Ratre 2018PHXF0422G	Studies on the structural and functional characterization of the putative ssb gene in <i>Staphylococcus aureus</i> temperate bacteriophage Phi11.	Dr. Malabika Biswas	Dr. Sumit Biswas	BITS-Pilani, K.K. Birla Goa Campus
13	Namitha S. Nayak 2018PHXP0421G	Screening membrane protein leaders for specific targeting of cyanobacterial bicarbonate transporters to the inner envelope membrane of C3 plant chloroplast	Dr. Sandhya Mehrotra	Prof. Rajesh Mehrotra	BITS-Pilani, K.K. Birla Goa Campus
14	Ruchika Bassan 2018PHXF0430G	Amino Acid and Short Peptide-based Supramolecular Hydrogels for Biocatalysis	Dr. Subhasish Roy	-----	BITS-Pilani, K.K. Birla Goa Campus
15	Rahul Bajpai 2019PHXF0003G	Design and Outage Analysis for Full-Duplex Cooperative Device-to-Device Communications System.	Dr. Naveen Gupta	----- -	BITS-Pilani, K.K. Birla Goa Campus
16	Renjith Raj 2018PHXF0401G	Climate Change, Land use Pattern and Vulnerability: Unveiling the Nexus from the Western Ghats and Below Sea Level Region in Kerala	Dr. Arfat Ahmad Sofi	-----	BITS-Pilani, K.K. Birla Goa Campus
17	Revankar Divya Satish 2018PHXF0446G	Regional Dimensions of the State of Employment in India: A case study of Employment Deprivation, Risk Aversion and Search Efficiency in Goa	Prof. Aswini Kumar Mishra	Dr. Arfat Ahmad Sofi	BITS-Pilani, K.K. Birla Goa Campus
18	Arnab Singha 2018PHXP0449G	Neighbourhood change and its impacts on elderly population in Indian cities- Particular reference to the selected areas of Kolkata by employing Grounded theory approach	Dr. Sayantani Sarkar	-----	BITS-Pilani, K.K. Birla Goa Campus
19	P Jitendra Kumar	Generalized Strichartz estimates	Dr. Pradeep	-----	BITS-

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	Senapati 2018PHXF0026G	for orthonormal families of initial data	Boggarapu		Pilani, K.K. Birla Goa Campus
20	Ashish Krishna 2018PHXF0435G	Symbolic Annihilation of Women's Sports: Postcolonialism, Body, and Sports-Media in India	Amitendu Bhattacharya	-----	BITS- Pilani, K.K. Birla Goa Campus
21	Bijaya Kumar Sahu 2017PHXF0435G	Isogeny Based Post Quantum Signature Schemes	Dr. Prabal Paul	Dr. Vishal Saraswat	Robert Bosch and Engineering Solutions, Bangalore
22	Gokul Sisir 2018PHXF0432G	A social psychological approach to scientific creativity: a study of the COVID-19 pandemic in India	Prof. Reena Cheruveth	Dr Michael Hanson	Columbia University, New York
23	Sujit Kumar Pradhan 2018PHXF0407G	Application of optimal control theory in software reliability growth modeling	Dr. Anil Kumar	Dr. Vijay Kumar	Amity Institute of Applied Sciences Amity University, Uttar Pradesh, Noida
24	Saroja Kumar Panda 2017PHXF0436G	Traversable Wormholes and Modified Gravity	Dr. J. K. Sahoo	Dr. G. C. Samanta	F. M. University, Odisha
25	Prashant Ganesh Joshi 2016PHXP0413G	Dynamic Architecture for collaborating computing paradigms related to Vehicular to Infrastructure (V2I) networks	Prof. Bharat M. Deshpande	-----	Leap & Scale Growth Partners Pvt. Ltd. Chinchwad, Pune
26	Chalakkal Jestin Johny 2018PHXF0038G	Review and Performance Analysis of India's FTAs & Case of India's Trade Liberalization in Agriculture Sector	Prof. R. P. Pradhan	-----	St. Francis Institute of Management Studies and Research, Affiliated to Mumbai University
27	Pratiksha Chandrakant 2018PHXF0040G	The Role of Creativity in Meta-Moral Cognition: A Study of Moral Decision Making Among Student-Teachers in Goa.	Prof. Reena Cheruveth	-----	Nirmala Institute of Education, Altinho Panaji-Goa
28	Zarine Saldanha 2018PHXF0039G	Organizational Culture and its impact on Job Embeddedness and enduring Organizational Citizenship Behaviours: A study of organizations in the Hospitality industry	Dr. Mohan Kumar Bera		Goa College of Hospitality and Culinary Education Cidade de Goa, Vanguinim Beach, Dona Paula, Goa
29	Natasha Perpetua Dsouza (2018PHXP0439G)	Some Domination Parameters in Graphs	Dr. Tarkeshwar Singh		BITS-Pilani, K.K. Birla Goa Campus
30	Fathima Safikaa S N (2018PHXF0409G)	Topology of Quotients of Stiefel Manifolds	Dr. Shilpa Gondhali		BITS-Pilani, K.K. Birla Goa Campus
31	Gayatri Maharana (2018PHXF0028G)	Characterization of weighted generalized inverses.	Dr. Jajati Keshari Sahoo		BITS-Pilani, K.K. Birla Goa Campus
32	Saurabh R. Madankar (2018PHXP0408G)	Haar wavelet based numerical method to solve optimal control problems in robotics	Dr. Amit Setia		BITS-Pilani, K.K. Birla Goa Campus
33	Suhas N. Ankalkhope 2019PHXF0040G	Investigation on buckling response analysis of an axially compressed cylindrical shell using energy barrier approach based on lateral probing technique.	Dr. Sandeep Jose		BITS, Pilani- K.K. Birla Goa Campus
34	Sudhanwa Mahesh Kulkarni 2019PHXF0071G	Crashworthiness Performance Analysis of Thin-Walled Collapsible Energy Absorbers Used in Automotive Vehicles	Dr. Kiran D Mali		BITS, Pilani- K.K. Birla Goa Campus
35	Thodupunoori Harshavardhan 2017PH010500G	Multi-Scale Modelling for Energy Storage Materials	Dr. Paramita Haldar		BITS Pilani, K.K. Birla Goa Campus
36	Aakanksha M 2018PHXP0427G	Fabrication of biomimetic magnetic nano-motors, by	Prof. Sutapa Roy Ramanan		BITS Pilani, K.K. Birla Goa Campus

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
		electrospinning a polymer nanocomposite using mechanical buckling phenomenon			
37	Siddharth Dhruva Parashar 2019PHXP0048G	Development of metal oxide supported catalysts for direct conversion of methane	Dr. Sharad Sontakke		BITS Pilani, K.K. Birla Goa Campus
38	Sanjay Pandurang Mane 2019PHXF0001G	Osolation of white blood cells in a microfluidic device	Dr. Siddhartha Tripathi		BITS Pilani, K.K. Birla Goa Campus
39	Devika. N. Nagar 2019PHXP0045G	Characterization of pigments obtained from halophilic microorganisms and their potential applications	Dr. Judith M. Braganca		BITS Pilani, K.K. Birla Goa Campus
40	Lakshmi Sudhir Menon 2019PHXF0043G	Studies on the Biofilm Resistant Properties of <i>Moringa oleifera</i> Leaf Extracts and their suitability as Anti-biofilm Coats on Implant Devices	Dr. Sumit Biswas		BITS Pilani, K.K. Birla Goa Campus
41	Madduri Madhuri 2019PHXF0044G	Studies on the Antifungal Activities of <i>Bacillus subtilis</i> Lipopeptides against the Selected <i>Candida-non albicans</i> (CNA) Strain and Filamentous Fungi	Dr. Utpal Roy		BITS Pilani, K.K. Birla Goa Campus
42	Mohita Mahajan 2018PHXF0416G	Identification of cancer-associated key biomolecules and pathways by analyzing heterogeneous data	Dr. Sukanta Mondal		BITS Pilani, K.K. Birla Goa Campus
43	Shaikh Aatiya Nishaat 2019PHXP0012G	Demonstration of <i>Methanosarcina</i> sp based anaerobic digester for operational stability	Dr. Srikanth Mutnuri		BITS Pilani, K.K. Birla Goa Campus
44	Anagha Baburao Patil 2019PHXF0034G	Synthesis of some substituted nanostructured M _x (CoFe ₂) _{1-x} O ₄ ferrite materials via non-traditional methodologies and investigation on their nano-structural, surface and magnetic properties. [M = V, Nb, Ta, Cr, Mo, W]	Dr. Rabi Narayan Panda		BITS Pilani, K.K. Birla Goa Campus
45	Bhosle Akhil Adinath 2019PHXF0018G	Design and Synthesis of New AIE-Active red – emissive dyes, their photophysical studies and application in molecular sensing of toxic analytes	Dr. Mainak Banerjee	Dr. Amirita Chatterjee	BITS Pilani, K.K. Birla Goa Campus
46	Laxman Govind Raikar 2019PHXF0024G	Photolytic and Photocatalytic based Advanced Oxidation Processe (AOPs) for degradation of contaminants of Emerging Concern (CEC)	Prof. Halan Prakash		BITS Pilani, K.K. Birla Goa Campus
47	Aditi Prabhune 2018PHXF0431G	Study of intermolecular interactions based on thermodynamic, transport, interfacial and optical properties	Prof. Ranjan Dey		BITS Pilani, K.K. Birla Goa Campus
48	Tanya Raghava 2019PHXF0021G	Synthesis of novel small "push-pull" fluorophores with strong emission characteristics and study of their photophysical, redox and DNA-binding properties	Dr. Subhadeep Banerjee		BITS Pilani, K.K. Birla Goa Campus
49	Aakanksha M 2018PHXF0427G	Fabrication of biomimetic magnetic nano-motorsby electrospinning a polymer nanocomposite using mechanical buckling phenomenon	Prof. Sutapa Roy Ramanan		BITS Pilani, K.K. Birla Goa Campus
50	Thodupunoori Harshavardhan 2017PH010500G	Molecular Modelling for Energy Storage Materials	Dr. Paramita Haldar		BITS Pilani, K.K. Birla Goa Campus

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
51	Siddharth Dhruva Parashar 2019PHXF0048G	Development of Metal Oxide Supported Catalysts for Direct Conversion of Methane	Dr. Sharad M. Sontakke		BITS Pilani, K.K. Birla Goa Campus
52	Fathima Safikaa S N 2018PHXF0409G	Topology of Quotients of Stiefel Manifolds	Dr. Shilpa Gondhali		BITS Pilani, K.K. Birla Goa Campus
53	Gayatri Maharana 2018PHXF0028G	Characterization Of Weighted Generalized Inverses	Dr. Jajati Keshari Sahoo		BITS Pilani, K.K. Birla Goa Campus
54	Saurabh R. Madankar 2018PHXP0408G	Haar wavelet based numerical methods to solve optimal control problems in robotics	Dr. Amit Setia		BITS Pilani, K.K. Birla Goa Campus
55	Shaikh Sameer Maulasab 2019PHXF0029G	Wealth Effects from Mergers & Acquisitions: A Spatial Analysis	Prof. Debasis Patnaik		BITS Pilani, K.K. Birla Goa Campus
56	Abhay 2018PHXF0031G	Collective dynamics in networks of Leaky Integrate-and-fire neurons with hybrid synapses	Dr. Gaurav Dar		BITS Pilani, K.K. Birla Goa Campus
57	Kiran V 2018PHXF0029G	Estimation and optimization of efficiency of information engines and its applications to the study of biomolecular processes, molecular machine designs and thermodynamics of computation	Dr. Toby Joseph		BITS Pilani, K.K. Birla Goa Campus
58	Lakshmi S. Menon (2019PHXF0043G)	Studies on the Biofilm Resistant Properties of Moringa oleifera Leaf Extracts and their suitability as Anti-biofilm Coats on Implant Devices	Dr. Sumit Biswas		BITS-Pilani, K.K. Birla Goa Campus
59	Devika N. Nagar (2019PHXF0045G)	Characterization of pigments obtained from halophilic microorganisms and their potential applications	Dr. Judith M. Braganca		BITS-Pilani, K.K. Birla Goa Campus
60	Anbumunee P 2017PHXF0418G	Developing AI -based Ontology for Business Process Chaining in Heterogeneous Systems	Dr. Swati Aggarwal	Prof. Ashwin Srinivasan Dr. Amith Singhee (IBM Research, Bangalore.)	IBM Bangalore
61	Pathan Firojkan Z 2018PHXF0445G	Analytical solutions and finite element models for the smart laminated composite and functionally graded plates	Dr. Sandeep Singh		Dr. D.Y. Patil Institute of Engineering, Management and Research, Akurdi, Pune
62	B. P. Srinivas 2017PHXF0021G	Adaptive Power – Performance management for multi-core Systems	Dr. Biju K. Raaveendran		IBM, Bangalore
63	Natasha Perpetua Dsouza 2018PHXF0439G	Some Domination Parameters in Graphs	Dr. Tarkeshwar Singh		Don Bosco College of Engineering, Goa
64	Panjikar Padmini Charudatta 2018PHXF0442G	Development of efficient methodologies for the synthesis of heterocycles of biological interests in aqueous media using sustainable and green technologies	Dr. Mainak Banerjee		Pravatibai Chowgule College of Arts and Science, Margao, Goa
65	Kavita Vithal Patil 2020PHXF0037G	Study of attenuation process involved in Bank Filtration [BF] in Southern India.	Prof. Sampatrao D. Manjare	Prof. Dr. Thomas Boving. Department of Geosciences and Department of Civil and	The Energy and Resources Institute (TERI), Goa 403202

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
				Environmental Engineering, University of Rhode Island, USA	
66	Chetan Sudhir Joshi 2019PHXG0035G	Synthesis and characterization of selected natural products and their analogues of biological interest	Dr. Mainak Banerjee	Dr. Kamlesh Pai Fondekar (Godrej Agrovet Limited)	Deccan Fine Chemicals, Mangaddo, Corlim, Goa 403110
Hyderabad Campus					
1	Suresh Kanuri 2019PHXF0053H	Synthesis of Value-Added Chemicals from CO ₂ via Hydrogenation Route: Material and Process Development	Dr. Srikanta Dinda	Dr. Satyapaul Singh A	BITS Pilani, Hyderabad campus
2	Ramadurgam Aniruddha 2019PHXF0409H	Studies on adsorption based carbon capture	Dr. I Sreedhar	-	BITS Pilani, Hyderabad campus
3	Aluri Ravallika 2018PHXF0408H	Synthesis, Characterization and Applications of Polyazines and Polyazine Metal Complexes	Dr. R. Krishnan	-	BITS Pilani, Hyderabad campus
4	Sahithi Andru 2018PHXF0413H	Electronic and adsorption characteristics of gaseous moieties on chemically modified 2D vdW nanostructures	Dr. K. Sumithra	-	BITS Pilani, Hyderabad campus
5	Nilanjana Mukherjee 2018PHXF0411H	Development of Cost-effective and Sustainable Synthetic Methodologies: Access to Potential Organic Molecules	Dr. Tanmay Chatterjee	-	BITS Pilani, Hyderabad campus
6	N V M Rao Bandaru 2018PHXF0504H	Design, Synthesis and Biological Activity of Novel Nitrogen Containing Heterocyclic Compounds as HDAC8 and Bacterial Quorum Sensing Inhibitors	Dr. KVG Chandra Sekhar	Dr. Chandrasekhar Abbineni Aurigene Discovery Technologies Ltd, Hyderabad	Aurigene Discovery Technologies Ltd, Hyderabad
7	Khetmalis Yogesh Mahadu 2019PHXF0015H	Design, Synthesis and Biological Activity of Novel Heterocyclic Compounds as Anticancer and Anti-tubercular agents	Dr. KVG Chandra Sekhar	Dr. Balaram Ghosh	BITS Pilani, Hyderabad campus
8	Mohamed Rehan Mohamed Sagheer 2018PHXF0101H	Essays in Factor Investing	Dr. Nivedita Sinha	-	BITS Pilani, Hyderabad campus & State Street Global Advisors, Bengaluru
9	Ummuhabeeba Chaliyan 2018PHXF0020H	Financial Development and International Trade Linkages: Evidence from India	Dr. Mini Thomas P	-	BITS Pilani, Hyderabad campus
10	Naveen Bokka 2017PHXF0420H	Transient Nanoelectronics Devices as multifunctional sensors for personal healthcare applications	Dr. Parikshit Sahatiya	-	BITS Pilani, Hyderabad campus
11	Priyanka B G 2017PHXF0436H	Memristor Based Neural Networks for Signal Processing Applications	Dr. BVVSN Prabhakar Rao	Dr. Souvik Kundu	BITS Pilani, Hyderabad campus
12	Venkatarao Selamneni 2018PHXF0429H	2D Material hybrid based flexible Nanoelectronic Devices for Applications in broadband Photodetectors and Wearable Sensors	Dr. Parikshit Sahatiya	-	BITS Pilani, Hyderabad campus
13	Debapriya Som	First principle calculation based	Dr. Sayan	-	BITS Pilani,

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	2018PHXF0432H	investigation on the electronic and optical properties of Van der Waals hetero-structures of different 2D materials for broadband photodetector applications	Kanungo		Hyderabad campus
14	Manjunatha Reddy H V 2019PHXF0110H	Novel Miniaturized RF Embedded Integrated Passive Circuits for Strategic Electronic subsystems based on LTCC Technology	Dr. Harish V. Dixit	Dr. Runa Kumari	BITS Pilani, Hyderabad campus & Cadence Design System, Bengaluru
15	Ajitha T 2019PHXF0111H	Efficient Coordinated Residential Energy Management Systems for Demand Response Strategies in Renewable Energy based Smart Grid system	Dr. Sudha Radhika	Dr. SanketGoel	BITS Pilani, Hyderabad campus & Anurag Group of Institutions, Ghatkesar, Hyderabad
16	Jayapiriya U S 2019PHXF0433H	Implantable Microfluidic Glucose Biofuel Cell to Power Microelectronic Devices and CyberPhysical System based Real-time Monitoring	Dr. Sanket Goel	-	BITS Pilani, Hyderabad campus
17	Rohit JHA 2017PHXF0439H	Socio-Spatial Analysis of Peri-Urbanization: A Study of Hyderabad City	Dr. Suchismita Satpathy	-	BITS Pilani, Hyderabad campus
18	Anwasha Mohanty 2018PHXF0436H	Integrating Women's Knowledge into Environmental Governance	Dr. Lavanya Suresh	-	BITS Pilani, Hyderabad campus
19	Md Shahid Akhter 2018PHXF0437H	Disaster Risk and its Assessment: An Analysis of Mumbai City and Chirang District, Assam	Dr. Biswanath Dash	-	BITS Pilani, Hyderabad campus
20	A. Sri Sakti Swarup 2018PHXF0442H	Class of operators on variable exponent sequence spaces and their corresponding ergodic version	Dr. Michael Alphonse	Dr. Manish Kumar	BITS Pilani, Hyderabad campus
21	Sanjay Mandal 2018PHXF0444H	Accelerated expansion of the Universe in non-minimally coupled gravity	Dr. Pradyumn Kumar Sahoo	-	BITS Pilani, Hyderabad campus
22	Ashutosh Balasaheb Mahale 2019PHXF0048H	Functional role of histone deacetylase 6 (HDAC6) in the progression of oral squamous cell carcinoma	Dr. Onkar P Kulkarni	Dr. Balaram Ghosh	BITS Pilani, Hyderabad campus
23	Milan Paul 2019PHXF0453H	Near Infrared Light Activatable Nano-micellar Chemo-Photodynamic Combination Therapy for oropharyngeal carcinoma	Dr. Swati Biswas	-	BITS Pilani, Hyderabad campus
24	Mohammed Shareef Khan 2019PHXF0064H	Pharmacokinetic Evaluation of Triamcinolone Acetonide Loaded Nanoparticulate drug delivery system for Non-Invasive Delivery in the Effective Treatment of Posterior Uveitis	Dr. Punna Rao Ravi	-	BITS Pilani, Hyderabad campus
25	Sravani E 2019PHXF0511H	Anti-infective Synthetic Peptides with Dual Antimicrobial and Immunomodulatory Activities for the Treatment of Sepsis	Dr. D. Sriram	1. Dr. Arti Dhar 2. Dr. B. Sesikeren, ISSAR Pharmaceuticals Pvt. Ltd. Hyderabad	BITS Pilani, Hyderabad campus & ISSAR Pharmaceuticals Pvt. Ltd. Hyderabad
26	Tarun 2019PHXF0451H	Synthesis and Biological Evaluation of Bifunctional	Dr. Balaram Ghosh	-	BITS Pilani, Hyderabad

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
		Molecules as Anticancer Agents			campus
27	HARIDEV S R 2018PHXF0460H	The Role of Effective action in Theories of Quantum Gravity	Dr. Prasant Samantray	-	BITS Pilani, Hyderabad campus
28	Nobleson K 2018PHXF0458H	Advanced studies on Neutron Stars and Pulsars	Dr. Sarmistha Banik	-	BITS Pilani, Hyderabad campus
29	Sabur Ahmed Barbhuiya 2018PHXF0459H	Quantum optical studies of hybrid microcavity systems : Feasibility of building all optical devices for quantum communication platforms	Dr. Aranya B Bhattacharjee	-	BITS Pilani, Hyderabad campus
30	Sivasankaraiah Podili 2018PHXF0512H	Magnetic Sensor Development for Gas Sensing	Dr. V. Satya Narayana Murthy	Dr. P. Nagaraju, C M R Technical Campus, Hyderabad	BITS Pilani, Hyderabad campus & C M R Technical Campus, Hyderabad
31	Neha Priyadarshini 2018PHXF0001H	To develop engineered bacterial M1GS- ribozyme mediated cleavage of 47S rRNA as an anticancerous strategy	Dr. Gireesha T Mohannath	Dr. Swati Biswas	BITS Pilani, Hyderabad campus
32	S. K. Venkata Manjari 2018PHXF0002H	Explore the neuroprotective role of Vitamin D in mouse model of Huntington's disease (HD)	Dr. Pragya Komal	-	BITS Pilani, Hyderabad campus
33	Harsha Bharwani 2018PHXF0007H	Development of a field operable testing system for ensuring quality of milk	Dr. Suman Kapur	-	BITS Pilani, Hyderabad campus
34	Pranay Amruth Maroju 2018PHXF0008H	Effects of DNMT1 and DNMT3A overexpression in abnormal neurogenesis and neurodevelopmental disorders	Dr. Naga Mohan Kommu	-	BITS Pilani, Hyderabad campus
35	Neeraj Kumar Jha 2018PHXF0510H	An empirical investigation of sustainable production practices in Indian manufacturing industry	Dr. C P Kiran	Dr. Naga Vamsi Krishna Jasti	BITS Pilani, Hyderabad campus & C V R College of Engineering, Hyderabad
36	Ronanki Suresh 2019PHXF0041H	Experimental investigations on an ejector-based thermal management system for hybrid electric vehicle (HEV)	Dr. Santanu Prasad Datta	-	BITS Pilani, Hyderabad campus
37	Veeraiahgari Vamshi 2019PHXF0042H	Study of Strength and Fracture Characteristics of SS316L Components made by Additive Manufacturing (AM) for Aerospace Applications	Dr. Srinivasa Prakash Regalla	-	BITS Pilani, Hyderabad campus
38	Petla Sivateja 2019PHXF0045H	Studies on influences of A-TIG welding process on mild steel weldments	Dr. Ravi Shanker Vidyarthi	-	BITS Pilani, Hyderabad campus
39	Sreeram Jujavarapu 2018PHXF0511H	An empirical investigation and improvement of industrial and sustainable characteristics of compact passenger vehicle interiors with the help of Bio-inspired design	Dr. Nitin Kotkunde	Dr. Srinivas Kota	BITS Pilani, Hyderabad campus & Mercedes-Benz Research & Development India, Bengaluru
40	Pichikari Sai Kiran 2017PH010033H	Instability Mediated Morphology Modulation in thin Polymer films	Dr. B. Nandini	Dr. D Purnima	BITS Pilani, Hyderabad Campus
41	Vuthipalli Harshitha 2019PHXF0005H	Development of Performance Testing Procedure and Predictive	Dr. Sridhar Raju	Dr. Prasanta Kumar Sahu	BITS Pilani, Hyderabad

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		Models to Study the Long-term Field Aging Behavior of Bituminous Mixtures			Campus
42	Atun Roychoudhury 2019PHXF0100H	Co-digestion of organic municipal solid waste and slaughterhouse waste through triphasic dry biomethanation and concomitant recovery of value-added products	Dr. P Sankar Ganesh	-	BITS Pilani, Hyderabad campus & Chadwick FSM Lab Banka Bio Loo Limited, Hyderabad
43	Devarakonda Himaja 2019PHXF0008H	Deciphering cysteine post-translational modifications in Domains of Unknown Functions (DUF's) and their possible implications in biochemical pathways	Dr. Debashree Bandyopadhyay	-	BITS Pilani, Hyderabad campus
44	Syeda Sabiha Sultana Lubna 2019PHXF0061H	Understanding the sequence variation of H1N1 influenza viral proteins and its effects on host-pathogen interaction leading to altered viral pathogenicity in the Indian population	Dr. Debashree Bandyopadhyay	-	BITS Pilani, Hyderabad campus
45	Manu Goyal 2019PHXF0101H	Screening of long non-coding RNAs (lncRNAs) involved in Janus Kinase-Signal Transducer and Activator of Transcription (JAK-STAT) pathway as biomarkers in B-cell Acute Lymphoblastic Leukemia (B-ALL).	Dr. Vivek Sharma	-	BITS Pilani, Hyderabad campus & AmPath, Hyderabad
46	Raja Gopalan N S 2019PHXF0004H	A study on the interaction between the rhizobacterium, <i>Pseudomonas putida</i> AKMP7 and <i>Arabidopsis thaliana</i> , under drought conditions.	Dr. Sridev Mohapatra	-	BITS Pilani, Hyderabad campus
47	Kotwal Shifa Bushra 2018PHXF0004H	Development of an endogenous STING agonist adjuvanted <i>Mycobacterium bovis</i> BCG vaccine to enhance efficacy against Tuberculosis	Dr. Ruchi Jain Dey	-	BITS Pilani, Hyderabad campus
48	Sadamanti Sireesha 2019PHXF0408H	Studies on heavy metal removal using biomass based adsorbents	Dr. I Sreedhar	-	BITS Pilani, Hyderabad campus
49	Dhanya. V. 2019PHXF0103H	Development of customized novel materials for adsorptive removal of uranium from water	Dr. N. Rajesh	-	BITS Pilani, Hyderabad campus & ST. Francis College for Women, Begumpet, Hyderabad
50	Krishna Bandarupalli 2018PHXF0501H	Heterogeneous acid catalysts for the one-pot synthesis of Active Ingredients	Dr. Sounak Roy	-	BITS Pilani, Hyderabad campus & Adama India Pvt.Ltd
51	T Leelasree 2019PHXF0054H	Study of Structure-Property Relationships of Metal-Organic Frameworks (MOFs)	Dr. Himanshu Agarwal	-	BITS Pilani, Hyderabad campus
52	Madhuparna Chakraborty 2019PHXF0014H	Synthesis and studies of solid-state emitters as a tunable mechanofluorochromic small molecules	Dr. Manab Chakravarty	-	BITS Pilani, Hyderabad campus

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53	Rituparna Hazra 2019PHXF0016H	Modeling and simulation of lipids and low-density lipoproteins with an emphasis on their interaction with diverse polysaccharides	Dr. Durba Roy	-	BITS Pilani, Hyderabad campus
54	Sameer Singh 2019PHXF0012H	Synthesis and study of peptide/protein-conjugated fluorophores as promising AIEgens	Dr. Manab Chakravarty	-	BITS Pilani, Hyderabad campus
55	Balla Bhavani Shankar 2019PHXF0418H	Analysis and modelling of built environment and land-use freight generation models and assessment of their geographical transferability	Dr. Prasanta Kumar Sahu	-	BITS Pilani, Hyderabad campus
56	Gowlla Jyothsna 2019PHXF0417H	Combined Use of Sugarcane Bagasse Ash and Industrial By-Products for Sustainable Cement	Dr. Bahurudeen A	Dr. Prasanta.K.Sahu	BITS Pilani, Hyderabad campus
57	Mandan Naresh 2018PHXF0420H	Reinforcement Learning based video distribution through wireless networks	Dr. Paresh Saxena	Dr. Manik Gupta	BITS Pilani, Hyderabad campus
58	Chaudhary Priyanka Rushikesh 2018PHXF0421H	Detection and Mitigation of cyber attacks on Internet of Things using Machine Learning	Dr. Rajib Ranjan Maiti	-	BITS Pilani, Hyderabad campus
59	Navya Kumar 2019PHXF0426H	Work from Home for Indian White-Collar Employees: Impacts, Challenges, and Opportunities	Dr. Swati Alok	Dr. Sudatta Banerjee	BITS Pilani, Hyderabad campus
60	Salva.K 2018PHXF0423H	Essays on Banking and Finance	Dr. Sunny Kumar Singh	-	BITS Pilani, Hyderabad campus
61	Battina Sindhu 2019PHXF0029H	Design of Flexible Antennas for Wireless Sensor Based IoT Applications	Dr. Sourav Nandi	-	BITS Pilani, Hyderabad campus
62	Manoj Samal 2019PHXF0030H	Deformation Diagnostic of Transformer Winding Using the Sweep Frequency Response Analysis	Dr. Mithun Mondal	-	BITS Pilani, Hyderabad campus
63	Chowta Mallikharjuna Rao 2019PHXF0031H	Exploring energy/power efficient VLSI architectures for real time ultra-high definition video codec	Dr. Sumit Kumar Chatterjee	-	BITS Pilani, Hyderabad campus
64	Mrunali Dnyaneshwar Wagh 2019PHXF0428H	Design and Development of IoT Driven Miniaturized Biosensor for Various Monitoring Applications	Prof. Subhendu K Sahoo	Prof. Sanket Goel	BITS Pilani, Hyderabad campus
65	Nawin R A 2019PHXF0430H	Design of an optimized interfacing for Vanadium Redox Flow Battery (VRFB) storage with Renewable Energy Systems (RES) and its performance analysis	Dr. Ankur Bhattacharjee	-	BITS Pilani, Hyderabad campus
66	Renuka Loka 2019PHXF0432H	Stability and Control of Hybrid Power System using Novel Robust Control Techniques.	Prof. Alivelu M.Parimi	Dr. STP Srinivas	BITS Pilani, Hyderabad campus
67	Rajasekhar Nalanagula 2019PHXF0108H	Design and Development of 5G Hybrid Dielectric Resonator Antennas with Polarization Diversity for Multiband and Wideband Applications	Dr. Runa Kumari	-	BITS Pilani, Hyderabad campus & Lendi Institute of Engineering and Technology
68	Krishnan R S 2019PHXF0109H	Design of Performance-Power tunable mm-Wave Frontend IP	Dr. Saroj Mondal.	Dr. Ravindra Kapre (VP, Infineon Technology, USA)	BITS Pilani, Hyderabad campus & Infineon Technologies company, Bangalore

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69	Ahmed Shabin K K 2018PHXF0440H	Literary Censorship in the Contemporary Indian Context	Dr. Shilpaa Anand	-	BITS Pilani, Hyderabad campus
70	Jaya Sarkar 2018PHXF0439H	Towards Protopian Posthumanism: A Study of Aesthetics, Affect and Emancipated Narrative	Dr. Anhiti Patnaik	Dr. Shilpaa Anand	BITS Pilani, Hyderabad campus
71	Agrawal Amarkumar Shyamsunder 2018PHXF0463H	Bouncing scenario and cosmic dynamics in modified theories of gravity.	Dr. Bivudutta Mishra	-	BITS Pilani, Hyderabad campus
72	Aleena Philip 2019PHXF0038H	Multilinear extensions of some operator ideals related to absolutely p-summing operators	Dr. Deepika	-	BITS Pilani, Hyderabad campus
73	Anjali P V 2019PHXF0063H	A posteriori error analysis for weak Galerkin (WG) finite element method for Parabolic problems	Dr. Jhuma Sen Gupta	-	BITS Pilani, Hyderabad campus
74	Ghale Vinodkumar Rajlingappa 2018PHXF0465H	Elliptic curves and the Congruent number problem	Dr. Debopam Chakraborty	-	BITS Pilani, Hyderabad campus
75	N. S. Gopal 2019PHXF0036H	Qualitative Properties of Hilfer-type Nabla Fractional Difference Equations	Dr. Jagan Mohan Jonnalagadda	Dr. Dipak Kumar Satpathi	BITS Pilani, Hyderabad campus
76	Nakidi Shravani 2019PHXF0040H	A posteriori error analysis for stochastic parabolic partial differential equation with small uncertainty	Dr. Gujji Murali Mohan Reddy	Prof. Michael Vynnycky (University of Limerick, Ireland)	BITS Pilani, Hyderabad campus
77	Vardhanapu Muralidhar 2019PHXF0060H	Evaluation of Nano-particles based Metalworking Fluids (MWFs) for Machining performance, Occupational health and Environmental disposal, a step towards achieving sustainability in machining industry	Dr. Phaneendra Kiran Chaganti	-	BITS Pilani, Hyderabad campus
78	Jose Santo 2019PHXF0440H	Developmental studies on additive manufacturing of nanocomposites for energy storage applications	Dr. Pavan Kumar P	-	BITS Pilani, Hyderabad campus
79	Y S Prasanna 2019PHXF0441H	Development of an Optimized Phase Change Material based Solar Distillation System in Indian Context	Dr. Sandip S. Deshmukh	-	BITS Pilani, Hyderabad campus
80	Sreejith S 2019PHXF0446H	Machinability Assessment and Material Characterization of Tungsten Heavy Alloy Used in Defence Applications as Kinetic Energy Penetrators	Dr. Amrita Priyadarshini	Dr. Phaneendra Kiran Chaganti	BITS Pilani, Hyderabad campus
81	Kolla Lakshman Rao 2019PHXF0448H	Experimental investigation on the forming behavior of Nimonic 263 alloy at high temperatures	Dr. Amit Kumar Gupta	-	BITS Pilani, Hyderabad campus
82	Ahsan Ul Haq 2019PHXF0449H	Development and Dynamic Response of Honeycomb Sandwich Panels Subjected to High Velocity Impact	Dr. Narala Suresh Kumar Reddy	-	BITS Pilani, Hyderabad campus
83	Abhishesh Pal 2019PHXF0462H	IoT enabled Integrated Miniaturized Sensor for Real-time Quantification of Soil parameters	Dr. Satish Kumar Dubey	Dr. Sanket Goel	BITS Pilani, Hyderabad campus
84	Beri Venkata Himasekhar Sai 2019PHXF0510H	Numerical and Experimental Studies of Friction Stir Weld Joints of Similar and Dissimilar Aluminium-alloys (AA2219-AA2014).	Dr. Jeevan Jaidi	Dr. A. Venugopal Rao (DMRL(DRDO), Hyderabad)	BITS Pilani, Hyderabad campus & Mahatma Gandhi Institute of Technology,

S.No	Name & ID	Topic	Supervisor	Co-Supervisor	Locale of work
					Hyderabad
85	P. S Lakshmi Soukya 2019PHXF0455H	Design, Synthesis and Development of Fatty Acid Synthase Inhibitors as Anticancer Leads	Prof. A. Sajeli Begum	-	BITS Pilani, Hyderabad campus
86	Rahul Dhulaji Bhise 2019PHXF0512H	Development and evaluation of nano-liposomes mediated targeted therapy for pancreatic cancer	Dr. Akash Chaurasiya	-	BITS Pilani, Hyderabad campus & Slayback Pharma, Hyderabad
87	R Ranga Goud 2019PHXF0116H	Studies on Nanocrystalline Solid Dispersions of Poorly Soluble Drugs to Improve the Dissolution and Bioavailability	Dr.V.V. Vamsi Krishna	Dr. S.S Apte	BITS Pilani, Hyderabad campus & Natco Research Centre, Sanathnagar, Hyderabad.
88	Asif Mohd Itoo 2019PHXF0452H	Multifunctional graphene oxide Nanomedicine for breast cancer therapy	Dr. Swati Biswas	-	BITS Pilani, Hyderabad campus
89	Trupti Ghatage 2019PHXF0450H	Pharmacological evaluation of dual acting peptide targeting MasR and pGC-A in Hypertension	Dr. Arti Dhar	-	BITS Pilani, Hyderabad campus
90	Sajia Yeasmin 2019PHXF0051H	Quantum-optical properties of Quantum Dot based photonic crystal mesoscopic-cavity	Dr. Souri Banerjee	Dr. Aranya B Bhattacharjee	BITS Pilani, Hyderabad campus
91	Surabhi Yadav 2019PHXF0049H	Modeling Quantum-optical effects in novel hybrid optomechanical systems	Dr. Aranya B. Bhattacharjee	Dr. Souri Banerjee	BITS Pilani, Hyderabad campus
92	Aiswarya N M 2019PHXF0050H	Relationship between viscoelasticity and microstructure of fungal biofilms	Dr. Aravinda N Raghavan	Dr. Asma Ahmed (Natural and Applied Sciences, Canterbury Christ Church University, United Kingdom)	BITS Pilani, Hyderabad campus
93	Ronit Mahapatra 2019PHXF0052H	Radiation Reaction of a Non-Relativistic/Relativistic Quantum charged particle in Local and Non-Local Electrodynamics	Dr. Asrarul Haque	--	BITS Pilani, Hyderabad campus
94	Ramisetty Kavya 2019PHXF0057H	Decision Support System for Health Informatics	Dr. Jabez J Christopher	Dr. Subhrakanta Panda	BITS Pilani, Hyderabad Campus
95	Shruthi Keerthi D 2018PHXF0500H	Model development and its validation to study the transient behavior and cell performance of liquid feed direct ethanol fuel cell	Prof. Balaji Krishnamurthy	Dr. M. Mukunda Vani (Anurag University, Hyderabad)	BITS Pilani, Hyderabad campus & Anurag University, Hyderabad.

8. Sponsored Research and Consultancy

Pilani Campus

Details of Government Sanctioned Projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs. In Lakhs)	Sanctioned Date
Biological Sciences						
1	Enhancer of Zeste Homolog-2 role in Glomerular endothelial Dysfunction during Diabetic nephropathy	Dr. Syamantak Majumder	Dr. Shibasish Chowdhury	DBT	3347120	24.8.2020
2	28S Ribosomal RNA capture assay for the sensitive detection of plasmodium vivax	Dr. A K Das	Dr. Sunil Bhand, Dr. Sanket Goel	ICMR	12500000	18.8.2020
Chemistry						
1	Targeting the RNA-dependent RNA polymerase (RdRp) of SARS-COV2 for the development of inhibitors	Dr. Benu Batra Das, Indian Association for the cultivation of Science , Kolkata	Dr. Anil Kumar	SERB	2402008 (BITS Share 577500)	4.8.2020
2	Direct Catalytic approach towards the Synthesis of C3-Substituted Pyrroles in Non-asymmetric/asymmetric Fashion	Dr. Indresh Kumar	-	SERB	3491400	1.12.2020
3	Investigation of the nature and origin of intermolecular Se-H...X(X=O,N,S,Se) hydrogen bonding interaction using matrix isolation infrared spectroscopy and theoretical calculations	Dr. Shamik Chakraborty	-	SERB	2952400	1.12.2020
4	Synthesis and C-H Bond Functionalization of N-heterocycles Employing Novel Pincer-type complexes of late Transition metal	Dr. Anil Kumar	-	SERB	3656400	1.12.2020
CSIS						
1	Development of Deep Learning-Based Intrusion Detection System for Defending Android-Based HTML5 Web Applications against Cross-Site Scripting (XSS) Attack	Dr. Shashank Gupta	Dr. Amit Dua	Data Security Council of India	552500	21.10.2021
EEE						
1	Design and Development of Soft robotic system for selective harvesting of coffee cherries	Dr. Meetha V. Shenoy	Dr. Nitin Chaturvedi	DST-SYST	3977600	24.2.2020
Mathematics						
1	A Study of Existence Questions to elliptic partial differential equations with gradient nonlinearities	Dr. Gaurav Dwivedi	-	SERB-CRG	1862982	31.12.2020
Mechanical Engg						
1	Development of Conductive FDM based rapid tooling for EDM electrode fabrication: Application in Medical implant Manufacturing	Dr. Pratik Kala	-	SERB-CRG	2169101	18.2.2020
2	Design and Development of MEMS gyroscope for naval applications	Dr. Vankatesh Kadbur Prabhakar Rao	Dr. Sujan yenganti	DRDO (NRB)	4669000	11.9.2020
Pharmacy						
1	Peptide-tethered multifunctional cationic nanocomplexes for delivery of IL-1 receptor antagonist for treatment of type 2 diabetes mellitus	Dr. Anupama Mittal	Dr. Deepak Chitkara	SERB-CRG	4046950	20.2.2020
2	Exploring the Mechanisms(s) of gut microbiota link to parkinson disease pathology and its reversal based on fibroblast growth factor 21 gene delivery through lentivirus system	Dr. Rajeev Taliyan	-	ICMR	2025813	2.12.2020

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs. In Lakhs)	Sanctioned Date
Physics						
1	Crystallographic Orientation (lattice plane) dependent selective gas sensing: A new approach in metal-oxides (MOx) based gas sensor	Dr. Subhashsi Gangopadhyay	-	SERB	2237400	25.12.2020
2	Study of driven quantum systems: Floquet Engineering of Novel Materials	Dr. J N Bandyopadhyay	Dr. Tapomoy Guha Sarkar	SERB	2391400	25.12.2020
3	Higher-harmonic generation in gases and solids and their implications in attosecond science	Dr. Amol Holkundkar	-	SERB	2347400	25.12.2020
International Projects Sanctioned						
EEE						
1.	Artificial Intelligence Enabled security provisioning and vehicular vision innovations for autonomous vehicles	Dr. Vinay Chamola	Dr. Pratik Narang	Shastri Indo-Canadian Institute	1000000	30.11.2020
Chemical Engineering						
1	Design and Development of inline sensor for lead Ion Detection	Dr. Somak Chatterjee	Dr. Etika Krishna Chaitanya	MKS Vision USA	2617000	-
Mechanical Engineering						
1	Educational Program for Sustainable Heating and Cooling Solutions for India	Dr. Souvik Bhattacharyya	Dr. M. S. Dasgupta	Research Council of NORWAY	1147000	2.6.2020
2	Skill Development Project	Dr. K S Sangwan	-	Mitutoyo South Asia Pvt. Ltd - Under CSR Initiative	3300000	23.12.2019
3	Implementation of Analysis of the low carbon life style options and participatory household research in India	Dr.. K S Sangwan	-	Institute of Global Environmental Studies, Japan	451000	25.2.2020
4	Joint Indo-German academy towards sustainability (German Academic Exchange Service)	Dr. K S Sangwan	-	DAAD-Germany	9548000	1.1.2020

Ongoing Sponsored Research projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
Biological Sciences							
1	Analysis of mitochondrial dynamicity post drug exposure in human glioblastoma cells and understanding its correlation with drug resistance	Dr. Sudeshna Mukherjee	-	SERB	2789000	25.9.2018	24.9.2021
2	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	Dr. Gaikwad Anil Bhanudas	SERB	4032800	9.7.2018	8.7.2021
3	High altitude-hypoxia mediates thrombosis in soldiers; modulation of autophagy as a strategy to combat high altitude-hypoxia induced thrombosis	Dr. Rajdeep Chowdhury	Dr. Syamantak Majumder, Dr. Shibasish Chowdhury	DRDO	4224000	23.10.2019	22.10.2022
4	Development of bioinoculant based formulation for enhanced phytoremediation	Dr. Monika Sandhu	-	DST	2080000	30.11.2017	29.2.2021

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
	of poly chlorinated biphenyl (PCB) contaminated soil						
5	Analyzing the crosstalk between autophagy, cytoskeletal and mitochondrial dynamics regulating epithelial to mesenchymal transition (EMT) in human glioblastoma cells	Dr. Sudeshna Mukherjee	-	CSIR	1840000	1.7.2019	30.6.2022
6	To investigate the mechanism of CRISPR-Cas regulated biofilm formation in salmonella enterica serovar Typhimurium	Dr. Sandhya Amol Marathe	-	DST-SERB	4371271	28.11.2018	27.11.2021
7	Development of sensors for blast and blight diseases and stomatal activity measurement in rice	Dr. P N Jha	-	ICAR(NASF)	23665770 (BITS Share 2394830)	1.6.2019	31.5.2022
8	repurposing of CNS accumulating drugs as autophagy modulators for potential treatment against glioblastoma: as in-silico, in-vitro and in-vivo study	Dr. Shibashis Chowdhury	Dr. Syamantak Majumder, Prof. Rajdeep Chowdhury, Dr. Aniruddha Roy	ICMR	2100000	2.9.2019	1.9.2022
9	Studying the efficacy of ADAM Inhibitors in treating diabetic nephropathy	Dr. Syamantak Majumder	Prof. Rajdeep Chowdhury	ICMR	1425812	28.8.2019	27.8.2022
10	Understanding the genetic interactions of parkin and α -synuclein affecting pathogenesis of Parkinson's disease	Dr. Meghana Tare	-	SERB	2255000	13.11.2019	12.11.2022
11	Anti-sense, Sense and Epigenetics in Severe Malaria	Dr. Ashish Kumar Das	Dr. Dinesh Gupta, International Centre for Genetic Engineering, New Delhi and Dr. Sanjay Kumar Kochar, SPMC, Bikaner	ICMR	14300000	10.12.2021	9.12.2022
12	Exploring Known and novel HSPs and HSFs in a thermotolerant plant Prosopis cineria by genome-wide studies and application of genome editing for enhanced heat stress tolerance in rice	Dr. Mukul Joshi	-	DBT-Ramalinga F/s	4250000	1.11.2019	31.10.2024
13	Epigenetics of Endothelial Dysfunction during cardiovascular disease	Dr. Syamantak Majumder	-	SERB(ECR)	4497957	11.3.2019	10.3.2022
Chemical Engineering							
1	Process development for bi-mitigation of flue gases (CO ₂ , SO _x , and NO _x) using chemolithotrophs and production of value-added products	Dr. Smita Raghuvanshi	-	SERB (CRG)	3161400	23.5.2019	22.5.2022
2	Prevention of Hazardous Field-Firing of Bagasse and Its Sustainable Utilization as a Raw Material in An Innovative Industrial Process	Dr. Srinivas Appari (BITS Pilani Pilani Campus) Prof. Shinji Kudo (KYUSHU UNIVERSITY)	Dr. Bahrudeen A (BITS Pilani Hyderabad Campus) Dr. Koji Nakabayashi (KYUSHU UNIVERSITY)	MHRD (SPARC)	2879650	15.3.2019	14.3.2021

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
3	Assessment of mixed-matrix membrane system for CO ₂ separation for upgradation of Biogas to Bio-compressed Natural Gas (Bio-CNG)	Dr. Bhanuvaradhan Reddy Kuncharam	-	SERB-SRG	2446770	6.12.2019	5.12.2022
Chemistry							
1	Synthesis of heterocycle fused cpomenones and quinolinone through transitional metal catalyzed cascade reactions	Dr Anil kumar	-	CSIR	2414000	1.7.2019	30.6.2022
2	Synthesis and tubulin inhibition activity studies of novel indolyl heterocycles	Dr. Dalip Kumar	-	CSIR	2236000	1.5.2017	31.3.2021
3	Heteroaromatic-Annulated Porphyrins: Design, Synthesis and Study of optoelectronic properties towards the development of photosensitizers	Dr. Dalip Kumar	-	SERB	2481600	15.10.2018	14.10.2021
5	Photo degradation of toxic organic dyes using dye-sensitized semiconductor photocatalyst	Dr. Shamik Chakraborty	-	CSIR	2067000	1.8.2018	31.7.2021
6	Studying Catalytic carbonylation of polyols- Sustainable Route to Carboxylic Acids from Renewable Platforms	Dr. Bibhas Ranjan Sarkar	-	SERB	3229600	27.7.2017	31.1.2021
7	Transition-metal-catalysed synthesis of fused heterocycles via C-C/C-N bond forming strategies	Dr. Rajeev Sakhuja	-	SERB	3328600	13.10.2017	28.02.2021
8	Synthetic Probes for Staudinger Ligation: Synthesis and Application of Phosphane Based templates	Dr. Kiran Bajaj	-	DST-WOS	2970000	15.1.2018	14.1.2021
9	Synthesis of metal complexes using D-glucose derived ligands and application of produced molecules in catalysis	Dr. Ajay Kumar Sah	-	CSIR	1132000	25.7.2018	24.7.2021
10	Assessment of sulfur centered halogen bonding (C-X...S, X=Cl, Br, I) interaction using matrix isolation infrared spectroscopy	Dr. Amrita Chakraborty	-	DST-WOS	2940500	1.10.2018	29.7.2021
11	Sensitive explosive detection in vapor phase with cyclometalated iridium (III), Platinum (II) and Conjugated Hyperbranched polymer based aggregation induced emission active nanoprobe	Dr. Inamur Rahaman Laskar	-	DRDO	3272600	20.6.2019	19.6.2022
12	Investigating the correlation between thermodynamic and kinetic parameters through density functional reactivity theory (DFRT) based approach	Dr. R K Roy	-	SERB-CRG	4128885	6.2.2020	5.2.2023
Civil Engineering							
1	Study of Postbuckling response, failure and strength of functionally graded composite plates with	Dr. S. B. Singh	-	CSIR	2160000	1.10.2019	30.09.2022

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
	and without cutouts						
2	Structured Dialogues for sustainable urban water management (SDSUWM)	Dr. Rajiv Gupta	BITS Pilani Hyderabad campus, Aligarh Muslim University, Amrita School of Engineering, Coimbatore	DST-TMD	50904188 (BITS Pilani Share 32988508 BITS Pilani Hyderabad Share 5726400)	27.12.2019	26.12.2024
CSIS							
1	Mobile app for assisting Indian farmers in improving yield by automatic identification of plant diseases (Rice and tomato)	Dr. Sundaresan Raman	-	DST	1773158	23.1.2019	22.1.2022
2	Design and Implementation of content based Recommender System for answering web based user queries	Dr. Yash Sharma	-	DST-ICPS	3557560	7.1.2019	6.1.2022
EEE							
1	Development of a Dielectric Resonator based displacement sensor	Dr. Praveen Kumar AV	-	DST-SERB	2074860	14.9.2018	13.9.2021
2	IoT based energy management system of a Microgrid with V2G (Vehicle to Grid) feature	Dr. H D Mathur	-	DST-ICPS	4753100	4.4.2019	3.4.2022
3	Management of Distributed energy resources in smart cities: Challenges and Advanced control strategies	Dr. H D Mathur (BITS Pilani) Prof. Houria Sigueriddjane (Centralesupelec)	Dr. Bijoy Mukherjee, Dr. Alivelu Parimi Prof. Guillaume Sandou (Centralesupelec), Prof. Romeo Ortega (Centralesupelec)	MHRD (SPARC)	4255900	15.3.2019	14.3.2022
4	Development of Improved Design and Control Techniques for Unified Power Quality Conditioner with Distributed Generation (UPQC-DG)	Dr. H D Mathur	-	CPRI	2109000	16.7.2019	15.7.2022
5	Resource dimensioning and management of smart and sustainable 5G small cells for rural broadband	Dr. Vinay Chamola	-	DST-ECR	2833700	30.3.2019	29.3.2022
7	Carbon nanomaterials for chemical sensing applications	Dr. Arnab Hazra (BITS Pilani, Pilani Campus) Prof. Yossi Rosenwaks (TEL AVIV UNIVERSITY)	Dr. Navneet Gupta & Dr. Rupam Goswami Prof. Yosi Y. Shacham-Diamand (TEL AVIV UNIVERSITY)	MHRD (SPARC)	4611610	15.3.2019	14.3.2022
8	Development of 1-D Nanomaterials based Selective Sensor System for Non-Invasive Detection of Diabetes Mellitus and Asthma by Breath Analysis Technique	Dr. Arnab Hazra	Dr. Syamantak Majumder	DBT	4657120	16.3.2019	15.3.2022
9	Modelling of Drivers and Barriers of electric vehicle penetration in emerging	Dr. Hari Om Bansal	Dr. Praveen Goyal	ICSSR	525000	19.10.2019	18.10.2021

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
	economy : A study of Indian Market						
10	Machine learning techniques for resource allocation in cell-free massive MIMO communications	Dr. Syed Zafaruddin	-	SERB-SRG	1848400	9.1.2019	8.1.2022
11	GaN Gratings-on-Diaphragm based Optical Pressure Sensing in Harsh Environments	Dr. Rahul Singhal	-	CARS-DRDO	966000	-	-
Humanities and Social Sciences							
1	An Empirical Study on Accountability and Learning Outcomes in Public School Systems in Rajasthan	Dr. Tanu Shukla	Dr. V. S. Nirban	ICSSR(IMPRESS)	1050000	9.5.2019	8.5.2021
2	Influence of English Teacher's Efficacy, competence and Motivation on their Instructional Strategy: A Study of Secondary Schools Teachers in Jhunjhunu, Rajasthan	Dr. Devika	Dr. Rajni Singh	--	680400	1.9.2018	31.3.2021
Management							
1	Use of Social Media as a Driver for Innovation in Higher Education in India	Dr. Nirankush Dutta	Dr. Anil Kumar Bhat	ICSSR	1050000	1.4.2019	31.3.2021
2	Designing a Futuristic Learning Framework for Post Millennial Generation Students of Higher Education Institutions in India	Dr. Jayashree Mahesh	Dr. Anil Kumar Bhat	ICSSR	934500	23.5.2019	22.5.2021
3	Developing active social learning interventions and assessing their impact on environmentally sustainable consumption behavior of primary children	Dr. Leela Rani	-	NCERT	514500	1.12.2019	30.11.2021
Mathematics							
1	A Benchmarking analysis public transport sector of Rajasthan	Dr. Shivi Agarwal	Dr. Trilok Mathur	DST Rajasthan	529200	12.2.2018	11.2.2021
2	A Study of Graphs on Semigroups	Dr. Jitendra Kumar	-	SERB(MATRICS)	660000	22.3.2019	21.3.2022
3	A study of nonlinear polyharmonic boundary value problems with dependence on gradient	Dr. Gaurav Dwivedi	-	SERB(MATRICS)	660000	22.3.2019	21.3.2022
4	A Parameter-uniform approximation for singularly perturbed parabolic reaction-diffusion boundary value problems	Dr. Devendra Kumar	-	SERB(MATRICS)	660000	30.3.2019	29.3.2022
5	Development of Uniformly Convergent methods for two-parameter singularly perturbed boundary value problems	Dr. Devendra Kumar	-	SERB-CRG	1687400	9.1.2020	8.1.2023
6	Numerical methods and Error Analysis for Solving coagulation and non-linear fragmentation equations	Dr. Rajesh Kumar		SERB-SRG	962500	16.12.2019	15.12.2021

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
Mechanical Engineering							
1	Waste Management of Generated Sludge from Indian Steel and Steel related plants: A sustainable Business Model	Dr. Srikanta Routroy	Dr. Anupam Singhal and Dr. Dipendu Bhunia	Ministry of Steel	3049000	20.11.2018	19.11.2019
2	Development of e-waste management strategies for selected e-products in Rajasthan	Dr. M S Dasgupta	Dr. Srikanta Routroy	DST Rajasthan	753600	12.2.2018	11.2.2021
3	Development of Fault diagnosis scheme for Aero-bearing with multiple localized defects using non-linear mathematical modeling and experimental analysis	Dr. Arun Kumar Jalan	Dr. Sachin Belgamwar	DRDO	998000	30.11.2018	29.11.2021
4	Empirical Investigation and Analysis of Factors for Sustainable Growth of Electric Vehicles Manufacturing in India	Dr. Abhijeet Digalwar	-	ICSSR(IMPRESS)	1470000	23.5.2019	22.5.2021
5	Development of a reliable, low-cost, portable, IOT-enabled optical device for measuring PM2.5 concentration in air	Dr. Aakash Chand Rai	CSIR-CEERI Pilani	DST-SYST	3596045	27.1.2020	26.1.2023
6	Assessment of Indoor plants for improving air quality in buildings	Dr. Aakash Chand Rai	-	SERB (CRG)	3971340	20.5.2019	19.5.2022
7	Effective anti-icing strategies for power transmission cables and pipelines using macro structured superhydrophobicity	Dr. A R Harikrishnan	-	SERB-SRG	3017020	20.12.2019	19.12.2022
Pharmacy							
1	To study the role of hyperglycemia on the progression of acute kidney injury	Dr Anil Bhanudas Gaikwad		SERB	4718560	17.2.2018	16.2.2021
2	Klotho regulation as a novel therapeutic strategy against acute kidney injury-induced comorbidity: Impact of epigenetic driven and epigenetic independent reactivation of endogenous Klotho expression	Dr Anil Bhanudas Gaikwad	-	SERB-EEQ	5033120	9.12.2019	8.1.2022
3	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	4057375	21.3.2018	20.3.2021
4	Gel-based composite formulation containing asiaticoside and neurotensin for rapid healing of diabetic wounds	Dr. Anupama Mittal	Dr. Deepak Chitkara	ICMR	2380000	16.10.2018	15.10.2021
5	Activity targeted nano-formulations for co-delivery of a taxane and antioxidant molecule, alpha acid, for treating breast cancer	Dr. Deepak Chitkara	-	DST Rajasthan	1113600	12.2.2018	11.2.2021
6	Peptide-decorated pH-sensitive nano-conjugate	Dr. Deepak Chitkara	Dr. Gaikwad Anil Bhanudas	DBT	4194600	29.12.2017	28.6.2021

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
	hybrid micelles for co-delivery of temozolamide and an autophagy inducer, rapamycin, for treatment of glioblastoma multiforme						
7	cRGD decorated lipo-polymeric nanoplexes of CRISPR/Cas9 ribonucleoprotein (RNP) for the management of retinal dystrophic conditions	Dr. Deepak Chitkara	Dr. Debojyoti Chakraborty, IGIB-CSIR (PI), Dr. Vivek Singh(PI), LV Prasad Institute, Hyderabad, Dr. Indumati Mariappan (CO-I), LV Prasad Institute, HYD, Dr. Vivek Pravin Dave (Co-I), LV Prasad Institute	DBT_Nano Intervention	5054600	7.9.2018	6.9.2021
8	Self assembling pH-sensitive temozolamide-lipoic acid conjugate nanomedicine for treatment of glioblastoma multiforme	Dr. Deepak Chitkara	-	ICMR	844000	25.9.2019	24.9.2022
9	Rod-shaped polymeric nanoparticles for targeted delivery of artemisinin-derivatives to plasmodium-infected erythrocytes for improved intravenous therapy of cerebral malaria	Dr Anil Jindal	-	SERB (ECR)	4430250	28.3.2019	27.3.2022
10	Development and evaluation of lipid based nanoparticles of Quinapyramine and Isometamidium salt for treatment of trypanosomiasis in camels	Dr Anil Jindal	National Research Center on Camel, Bikaner (Dr. Sanjay Kumar Project Coordinator and PI) , Dr. Paul Atish Tulshiram	DBT	4472600 (BITS Share 2904600)	14.3.2019	13.3.2022
11	Role of Endocrine Disrupting chemicals (ECDs) in Maternal and Child Health	Dr. Sunil K Dubey	Dr. Rajiv Taliyan	ICMR-Adhoc	1870656	15.7.2018	14.7.2021
12	Design, Synthesis, Biological Evaluation and Molecular modelling studies of Indolyl Oxoacetamide-Quinazoline based hybrid analogs as potential pancreatic lipase inhibitors for Obesity treatment	Dr. Paul Atish Tulshiram	-	SERB (CRG)	3505075	30.3.2019	29.3.2022
13	Computational design, synthesis and screening of non-hydroxamate lipophilic DXR inhibitors as potential antibacterial/antimalarial/anti-TB agents	Dr. Sandeep Sundriyal	-	SERB (CRG)	3046125	21.5.2019	20.5.2022
14	Design & Synthesis of Mycobacterium UDG Inhibitors	Dr. Sandeep Sundriyal	-	The office of principal scientific advisor, Govt. of India	1000000	27.2.2019	31.3.2021
15	Development of a Triggered Release Nano-Formulation	Dr. Aniruddha Roy	-	Shastri Indo Canadian	1000000	4.1.2020	3.1.2022

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
	for Combined Chemo-Immunotherapy of Cancer			Institute			
Physic							
1	EXAFS Investigations on ion conducting polymer nanocomposites for conductivity structure correlation	Dr. Anshuman Dalvi	-	UGC-DAE	445574	8.02.2017	31.3.2021
2	Li+ NASICON-Polymer hybrid composites for solid state supercapacitor applications	Dr. Anshuman Dalvi	-	SERB-CRG	4397391	23.12.2019	22.12.2022
3	Substrate supported transition metal doped alkaline earth clusters as hydrogen storage materials and their applications in hydrogen fuel cell	Dr. Debashish Bandyopadhyay	-	DST-SERB	2057088	26.9.2018	25.9.2021
4	Statistical Mechanics of biopolymers in confined geometry	Dr. Navin Singh	-	SERB	2341979	1.11.2018	31.10.2021
5	UV-Guided study of Blue straggler stars in open clusters and galactic fields	Dr. Kaushar Vaidya	-	ISRO	1772000	-	-
6	Investigation of Elastic and Inelastic Dephasing in Carbon Nanotube FET	Dr. Niladri Sarkar	Dr. Navneet Gupta	SERB (CRG)	1825450	27.3.2019	26.3.2022
7	Investigation on Langmuir-Blodgett films of pristine and functionalized single walled carbon nanotubes and application	Dr. R. K. Gupta	-	SERB-CRG	4569836	20.3.2019	19.3.2022
Economics & Finance							
1	Linking Energy Poverty with Human Development: A Case Study of Two Districts of Rajasthan	Dr. A K Giri	-	ICSSR	787500	30.8.2019	28.2.2021
2	Measuring the Vulnerability of Agricultural Households to Climate Change in Arid and Semi-Arid Regions of Rajasthan - A Capacity to Adapt Perspective	Dr. Geetilaxmi Mohapatra	-	ICSSR	840000	30.8.2019	29.8.2021
Industry Ongoing Projects Department wise							
Chemistry							
1	Design and development of synthetic industrial methods to access chiral drugs	Dr. Indresh Kumar	-	Praveen Laboratories Ltd, Surat	2080000	28.8.2019	27.8.2021
Chemical Engineering							
1	Development of microporous PVC films for synthetic leather applications	Dr. Etica Krishna Chaitnya	-	M/s Mayur Uniquoters Pvt. Ltd	767000	-	-
Pharmacy							
1.	Quality by design (QbD) based suspension product development and process optimization	Dr. Gautam Singhvi	-	SLYBACK Pharma	400000	1.1.2018	31.3.2020
2.	Novel ophthalmic formulation	Dr. R N Saha	Dr. Gautam Singhvi	SLYBack Pharma Hyderabad	1400000	4.5.2018	3.5.2021
3.	Development and preclinical evaluation of nanostructured lipid particles of bleomycin sulphate for targeting Brain	Dr. Gautam Singhvi	-	Oniosome Healthcare Private Ltd.	1275000	1.5.2018	30.4.2020

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
	cancer						
4.	Enhancement of oral bioavailability of selected drugs	Dr. Aniruddha Roy	Dr. Gautam Singhvi	INTAS Pharmaceuticals LTd., Ahmedabad	4500000	5.10.2018	4.10.2021
CSIS							
1	Development of real-time multi objective route recommender system using AI	Dr. Kamlesh Tiwari	Dr. Ashutosh Tiwari	MapmyIndia	742400	15.5.2019	14.5.2021
International project ongoing							
Civil Engineering							
1	Costs and remediation of Groundwater contamination in India	Dr. Rajiv Gupta	-	University of Virginia, USA	10000000	26.4.2016	31.3.2021
Pharmacy							
1	Nanotechnology based pharmaceutical, nutraceuticals and cosmetics-development of platform technology	Dr. Deepak Chitkara	-	Incisive Elements	2137800	5.4.2017	4.4.2020
2	Develop of novel anti-leishmanial analogues loaded with novel nano-formulations	Dr. S Murugesan	Dr. KVG Chandrashekar -	DBT-Indo Spain	6000000	26.3.2018	25.3.2020
3	The impact of formulation variables and processing methods for solubility enhancement of poorly soluble model drug using Affinisol HPMCAS	Dr. R. N. Saha	Dr. Gautam Singhvi	Colorcon Asia Pvt. Ltd ffa	1500000	16.1.2019	15.01.2022
Mechanical Engineering							
1	Re-value: Innovative technologies for improving resource utilization in the Indo-European fish value chains	Dr. Souvik Bhattacharya (BITS Pilani, Pilani Campus) Dr. Nutan Kaushik (Amity University, NOIDA) Dr. Maitri Thakur (SINTEF Fisheries, NORWAY), Dr. Evangelina Campos Ceprian, Spain)	Dr. Srikanta Routroy, Dr. M S Dasgupta	DBT-INNOINDIGO	6200092	12.3.2018	11.3.2021
EEE							
1	Design and Analysis of Metamaterial Based Antenna for Wearable Application	Dr. Navneet Gupta	Prof. Plamen Dankov, Associate Professor, Sofia University " St. Kliment Ohridski", Faculty of Physics, Bulgaria	DST-Indo Bulgaria Joint Project	1182350	30.9.2019	29.9.2021

Grants under DST- FIST Ongoing

S.No	Department	Period	Duration	Amt. Sanctioned(50:50 Basis) Rs. In Lakhs	Amount Released (Rs. In Lakhs)
1	Chemistry	July, 2016 to July 2021	5	8250000	7600000
2	Physics	September, 2018 to September, 2023	5	10050000	6600000

COMPLETED PROJECTS

S.No	Project Title	Principal Investigator	Co- Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs	Completion Date
Biological Sciences						
1	Investigating the Role of Aryl Hydrocarbon Receptors in medicating the Anti-Cancer Properties associated to camel milk	Dr Uma Dubey	-	DST- Rajasthan	743200	31.12.2020
2	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	2633000	29.11.2020
Chemistry						
1	Synthesis of novel N-fused polycyclic compounds through transition metal catalyzed cascade/C-H functionalization reactions	Dr Anil kumar	-	DST	3284600	14.1.2020
2	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	3500000	4.11.2020
3	"Probing the Nature of Intermolecular X-H...Se (X = O and N) Hydrogen Bonding Interactions using Matrix Isolation Infrared Spectroscopy"	Dr. Shamik Chakraborty	-	SERB	7354600	27.9.2020
4	Asymmetric synthesis of [2.2.2] azabicyclo-isoquinuclidine derivatives: Towards the synthesis of related alkaloids	Dr. Indresh Kumar	-	SERB	4329600	23.6.2020
5	Synthesis of D-glucose derived glycoconjugates and their application in molecular recognition and catalysis	Dr. Ajay Kumar Sah	-	SERB	3009600	30.11.2020
Chemical Engineering						
1	Removal of Heavy metals from industrial wastewater using metallic nanoparticles as absorbents	Dr. Banasri Roy		SERB	1902690	31.1.2020
EEE						
1	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	3870000	14.1.2020
2	Study on Electronic Transport Behaviour of Carbon nanotube based field effect transistors (CNTFETs)	Dr. Navneet Gupta	Dr. Niladri Sarkar	DRDO	2181800	4.9.2020
3	Crime Analysis and study for safe cities with emphasis on women safety using technology and societal participation	Dr. Anu Gutpa	Dr. Rajiv Gupta, Dr. Meetha V Shenoy	ICSSR(IMRE SS)	525000	15.6.2020
Humanities and Social Sciences						
1	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	Dr. Rajnessh Choubisa, Dr. Tanu Shukla , Dr. Sailaja Nandigama, Dr. R.P.Pareek	ICMR-ICSSR	2662126	31.8.2020

S.No	Project Title	Principal Investigator	Co- Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs	Completion Date
2	Development & Validation of a Prototype of a Web/Mobile App Based Positive Psychological Intervention for Adolescents	Dr. Rajneesh Choubisa	Dr. Gajendra Singh Chouhan, Dr. Tanu Shukla	ICMR-ICSSR	1789950	31.8.2020
3	Epistemology Revisited: Postmodern Discourse alternative forms of cognition and interdisciplinary of knowledge	Dr. Anupam Yadav		ICPR	200000	31.3.2020
Mathematics						
1	Mathematics aided Architectural Design layouts	Dr. Krishnendra Shekhawat	-	SERB	1544660	14.9.2020
Mechanical Engineering						
1	Design of Health care supply chain for enhancing availability and reducing wastage of generic medicines for rural areas in Rajasthan	Dr. Srikanta Routroy	Dr. Sunil Kumar Dubey	DST Rajasthan	588600	31.12.2020
2	Design and development of a power assistive hybrid e-trike (PAH e-Trike) for differently abled person in rural and urban regions of India	Dr. Sachin Belgamwar	Dr. Jitendra Rathore	DST-SEED	3063000	24.9.2020
Pharmacy						
1	Cyclic RGD modified lipopolymeric micelles for targeted delivery of tamoxifen in ER+Breast cancer	Dr. Anupama Mittal	-	DST Rajasthan	1253600	31.12.2020
2	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	3213850	17.3.2020
Physics						
1	Studies on Quarkonium suppression in Asymmetric Nuclear Collision at LHC	Dr. Madhukar Mishra	-	SERB	1585153	17.3.2020
2	"Investigating Dynamical and Topological Properties of Floquet Systems: A Comparative study of perturbative Schemes	Dr. Jayendra Bandyopadhyay	Dr. Tapomoy Guha Sarkar	SERB	1621840	16.3.2020
3	"Generation and Characterization of Attosecond Pulses with Specific Polarization and its Applications"	Dr. Amol Holkundkar	Dr. Jayendra Bandyopadhyay	SERB	1654291	15.3.2020
4	Electro-optical response of Nematic Liquid Crystals doped with nanorods	Dr. Manjula Devi V	-	SERB	3920277	20.8.2020
5	"Theoretical Study of Electron impact double ionization of atoms and molecules"	Dr. Rakesh Choubisa	-	SERB	2044113	20.3.2020
Industry Completed						
Pharmacy						
1	Design and Characterization of Nanoparticle based drug delivery systems of Anticancer drug	Dr. M M Pandey	Dr. Gautam Singhvi	Crenza Pharmaceutical Hyderabad	800000	31.3.2020
2	Preliminary investigation, characterization and stability analysis of micelles formulation	Dr. Sunil kumar Dubey and Dr. Gautam Singhvi	-	Enaltec Labs Pvt. Ltd	146000	31.3.2020
Consultancy completed						
Economics & Finance						
1	Financial Inclusion	Dr. Arun Kumar Vaish	-	HCL	1543500	31.3.2020

S.No	Project Title	Principal Investigator	Co- Principal Investigator	Agency	Sanctioned Amount Rs. In Lakhs	Completion Date
International Projects Completed						
Pharmacy						
1	Development of nutraceutical nanoemulsion based health drink of food bioactives	Dr Anil Jindal	-	Ananta Medicare Limited	510000	31.3.2020
Mechanical Engineering						
1	Joint Indo-German Experience Lab	Dr. K S Sangwan	-	DAAD	34100000	30.9.2020

Institute Funded projects						
Additional competitive Research Grant (IV Round) Sanctioned						
S.No	Project Title	Dept.	Principal Investigator	Amount Sanctioned	Sanctioned Date	
1	Preparation of hybrid hollow fiber membranes and its application in desalination applications	Chemical Engg	Dr. Somak Chaterjee	775000	6.1.2020	
2	Development of Novel catalysts for pyrolysis derived Bio-oil upgradation	Chemical Engg	Dr. Arghya Banerjee	525000	6.1.2020	
3	Role of oxophilic promoters in the ring-opening of biomass derived 2- pyrone molecules	Chemical Engg	Dr. Shelaka Gupta	525000	6.1.2020	
4	Evaluation of coarse, fine and SMA asphalt mix incorporating copper mine tailing	Civil Engg	Dr. Priyansh Singh	82000	6.1.2020	
5	Characterization of soil-rock mixtures and development of numerical models for landslide hazard assessment	Civil Engg	Dr. Nishant Roy	800000	6.1.2020	
6	A feasibility study on development of fire resistant geopolymer composites	Civil Engg	Dr. Mukund Lahoti	825000	6.1.2020	
7	Image stitching based decision making for virtualization of visual sensor nodes in cloudlet and node deployment for real time situational awareness	EEE&I	Dr. Meetha V Shenoy	800000	6.1.2020	
8	Development of a label-free plasmonic nanostructure-based optical sensor for refractive index and thickness detection of sub-wavelength thick analytes	EEE&I	Dr. Pankaj Arora	825000	6.1.2020	
9	Design, fabrication and testing of lab-scale printed circuit heat exchanger (LPCHE) for moderate pressure and temperature applications	Mechanical Engg	Dr. Aneesh A M	825000	6.1.2020	
10	Effect of electric current surges in the failure of pre-cracked and mechanically stressed thin metallic structures	Mechanical Engg	Dr. Deepak Sharma	700000	6.1.2020	
11	A new perspective on internal forced and mixed convection heat transfer in inclined circular and non-circular tube	Mechanical Engg	Dr. Suvanjan Bhattacharyya	750000	6.1.2020	
12	Redoxware: Exploiting enzyme redox property differences fro drug discovery and technological applications	pharmacy	Dr. Vaibhav Anil Dixit	750000	6.1.2020	

Additional competitive Research Grant Ongoing						
S.No	Project Title	Dept	Principal Investigator	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
1	Insights into genetic interactions manifesting to onset and progression of parkinson's disease	Biological Sciences	Dr. Meghna Tare	610000	1.2.2019	31.1.2021
2	Analysis of mitochondrial regulation (fission and fusion) in parental and drug resistant human cancer cells and understanding its functional implications	Biological Sciences	Dr. Sudeshna Mukherjee	400000	1.2.2019	31.1.2021
3	Hybrid polymer nanocomposite materials for electromagnetic interference (EMI)	Chemical Engg	Dr. Krishna Chaitanya Etika	750000	1.2.2019	31.1.2021

S.No	Project Title	Dept	Principal Investigator	Sanctioned Amount Rs. In Lakhs	Start Date	End Date
	shielding applications					
4	Failure analysis of MWCNTs-Reinforced laminated composite plate subjected to different types of mechanical loads	Mathematics	Dr. Rajesh Kumar	880000	1.2.2019	31.1.2021
5	Disaster monitoring from aerial imagery using deep learning	Csis	Dr. Pratik Narang	790000	1.2.2019	31.1.2021
6	Brain computer interface controlled humanoid	EEE&I	Dr. Vinay Chamola	900000	1.2.2019	31.1.2021
7	Design and development of MEMS based resonant glucose sensor	EEE&I	Dr. Sujan Yenuganti	225000	1.2.2019	31.1.2021
8	Study of Interfacial, Evaporation and ignition characteristic of micro-emulsion for printing, combustion, oil recovery and machining industrial applications	Mechanical Engg	Dr. A R Harikrishnan	790000	1.2.2019	31.1.2021
9	To decipher the role of Oxidative stress-induced inhibition of PKM2 in regulating autophagic induction of Nrf2: Understanding the mechanism of ROS adaptation in Breast Cancer Cells	Pharmacy	Dr. Richa Shrivastava	150000	1.2.2019	31.1.2021
10	Design and synthesis of conformationally constrained cationic peptidomimetics (CPMs) as antimicrobial agents	Pharmacy	Dr. Sandeep Sundriyal	950000	1.2.2019	31.1.2021

Additional competitive Research Grant Completed

S.No	Project Title	Dept	Principal Investigator	Sanctioned Amount Rs. In Lakhs	Completion Date
1	Experimental studies on mechanics of micromechanical structures and cells	Mechanical Engg	Dr. Venkatesh Kadbur Rao	820000	31.1.2020
2	Exploiting background information for efficient coordination of Multi-Robot systems dispatched for service delivery in an indoor environment	CS/IS	Dr. Avinash Gautam	800000	31.1.2020
3	Understanding the role of long non coding RNA in glomerular endothelial cell dysfunction during diabetic nephropathy	Biological Sciences	Dr. Syamantak Majumder	850000	31.1.2020
4	Investigate role of CRISPR-Cas system in pathogenesis of Salmonella enterica serovar Typhimurium	Biological Sciences	Dr. Sandhya Amol Marathe	750000	31.1.2020
5	Design exploration and performance analysis (through simulation) of RF-MEMS, SPST and SPDT Switches	EEE	Dr. Mahesh Angira	870000	31.1.2020

K. K. BIRLA Goa Campus

Details of Government Sanctioned Projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Biological Sciences						
1	Targeting the amyloid matrix of staphylococcal biofilms for effective management of its recalcitrant infections	Dr. Nikita Admane (Young Scientist-DHR)	Dr. Sumit Biswas (Mentor)	ICMR-DHR	4735500	14.02.2020 3 Years
2	Empowered Septic tank as a decentralized wastewater treatment system- Phase-2	Dr. Srikanth Mutnuri	Prof. Korneel Rabaey, Ghent University	DBT- BIRAC	15192700	18.02.2020 2 Years
3	To submit progetto study impact of negative factors which affect the ecology of wetland and importance of monitoring natural wetland ecosystem	Dr. Srikanth Mutnuri	Dr. Rajiv Kumar Chaturvedi, Dr. Mohan Kumar Bera	Forest & State Culturist Jharkhand Ranchi	1700000	17.03.2020 6 Months
4	Co-digestion of STP Secondary Sludge with organic wastes in	Dr. Srikanth Mutnuri	Dr. B Krishnakumar,	DST	500000	16.06.2020 6 Months

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
	urban /peri-urban areas, process optimization, scale up and field demonstration		CSIR-NIIST Thiruvananthapuram, Dr. P Ramna, Dr. P Venkateswara Rao, NITW Telangana, Mr. P Ganesh Kumar, L&T construction Chennai			
5	Study of efficacy of Quinacrine (QC) on inhibition of migration, proliferation, angiogenesis and Vesicle trafficking network of human non-small cell lung cancer cells.	Dr. Angshuman Sarkar	-	Goa Cancer Society	1000000	30.10.2020 2 Years
6	Biocompatible nano-vehicle mediated delivery of siRNA into stem cells for targeting Pluripotency markers as a Potential therapeutic approach in regenerative medicine	Dr. Meenal Kowshik	Dr. Indrani Talukdar, Dr. Sutapa Roy Ramanan	CSIR	3316000	17.07.2020 3 Years
7	J. C. Bose Fellowship Award	Dr. Samit Chattopadhyay	-	SERB	6645968	25.08.2020 3 Years and 5 Months
8	Development of Therapeutic Phages to Combat Drug Resistant Staphylococci Infection	Dr. Malabika Biswas	Dr. Samit Chattopadhyay Dr. Susmita Ghosh	SERB-CRG	4041000	31.12.2020 3 Years
Chemistry						
1	Demonstration of a practical solution for removal and monitoring heavy metal ions from drinking water using modified biopolymer	Dr. Amrita Chatterjee	-	DSTE-Goa	215000- (1st Installment)	29.06.2020 3 Years
2	Dual-functional and band-gap tunable visible-active semiconductors as hosts for single atom catalysts: Co-production of solar fuels and value-added chemicals with high selectivity	Dr. Kiran Vankayala	-	SERB- SRG	2919000	02.11.2020 2 Years
3	Water Filtration, advanced oxidation and capacitive-deionisation treatments for removal of emerging contaminants in water Acronym: (Water FACTs)	Dr. Halan Prakash	-	DST-WTI call	10523036	09.12.2020 2 Years
4.	28S Ribosomal RNA capture assay for the sensitive detection of plasmodium Vivax	Dr. Sunil Bhand (Co-PI)	Dr. Ashish Kumar (PI) Pilani Rajasthan	ICMR-MERA	3200000 (BITS share) total budget Rs.8002556/-	18.08.2020 2 years
Mathematics						
1	Numerical approximation of Optimal Problems using Virtual Element Method	Dr. Anil Kumar	Prof. Sarvesh Kumar, IIST, Valiamala Thiruvananthapuram	SERB-CRG	1907400	08.01.2020 3 Years
2	Modelling and Forecasting the Effects of Long Term Interventions on COVID-19 using Network-based Approach	Dr. Anupama Sharma	-	SERB- Matrics Special Call	550000	09.07.2020 1 Year
3	Entanglement non-local games and quantum error correction-an	Dr. Mizanur Rahaman		SERB	1246357	22.10.2020 2 Years

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
	operator algebraic viewpoint					
Physics						
1.	Quantum information Technologies with Ion-trap and Optical -lattice devices	Dr. Radhika Vathsan	-	DST -QEst (Quantum Technologies)	4840000	24.02.2020 3 Years
2	Experimental and theoretical investigations of ultra-thin two dimensional semiconductor heterostructures and their application to make nano-scale Devices	Dr. E S Kannan	Dr. Swastibrata Bhattacharyya	SERB-CRG	4614309	30.12.2020 3 Years
3	Field Theories with Carrollian Symmetry	Dr. Kinjal Banerjee	Dr. Rudranil Basu, Dr. Arjun Bagchi IIT Kanpur	SERB-CRG	1803576	28.12.2020 3 Years
4	Holography from null-infinity: Curious interactions and (how) do they probe black –holes?	Dr. Rudranil Basu		SERB-SRG	1365936	11.11.2020 2 Years
5	Brownian Dynamics Studies on Depinning, Melting and Dynamics Phases of Driven Partially Pinned Vortex Lattice.	Dr. Toby Joseph		SERB-CRG	1819400	28.12.2020 3 Years
6	Designing new 2D heterostructured materials: A defensive path towards next-generation energy storage devices	Dr. Swastibrata Bhattacharyya		SERB-SRG	1972872	11.11.2020 2 years
Chemical Engineering						
1	Studies on CO fuelled self-sustaining Unmixed Combustion (UMC) reactor for integrated CO2 capture and power/steam generation	Dr. Srinivas Krishnaswamy	Dr. Amol Deshpande	Mission Innovation call-by DST	7861832	17.01.2020 3 Years
2	Studies on hybrid Pressure Retarded Osmosis (PRO) – Reverse Osmosis (RO) system for energy generation utilizing hypersaline RO reject stream	Dr. Anirban Roy	-	SERB-CRG	3630264	28.01.2020 3 Years
3	Surface water purification for hand wash and other application for rural India	Dr. Anirban Roy		DST, NIDHI-PRAYAS	675000	08.07.2020 1 Year
4	Predicting grease lubrication behavior: (a) novel methods to determine grease rheology at extremely large shear rates and (b) the role of nanoscale and mesoscale structure of grease in film formation inside tribocontact".	Dr. Asima Shaukat	-	SERB- CRG	4065100	31.12.2020 3 Years
EEE						
1	MPSoC Based Automated Digital Signal Processing System for Tokamak Reflectometry	Dr. A. Amalin Prince	-	BRNS	2529350	27.01.2020 3 Years
Humanities and Social Sciences						
1	Implications of Ujjawala scheme for forest conservation efforts in the state of Jharkhand	Dr. Rajiv Kumar Chaturvedi	Dr. Mohan Kumar Bera	Forest & State Culturist Jharkhand Ranchi	967500	17.03.2020 6 Months
2	Undertaking study for mapping forest areas vulnerable to climate change in India based on high resolution computer model based projections	Dr. Rajiv Kumar Chaturvedi	-	Forest Survey of India, Ministry of Env. Forest, Govt. of India	913000	29.05.2020 4 Months
3	Assessing the Impact of Climate	Dr. Rajiv Kumar	-	ISRO-Under	2484000	03.09.2020

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
	change on mountain communities in Spiti Basin	Chaturvedi		Cryosphere Science and Applications Programme (CAP)		4 Years
CS&IS						
1.	A Low Power Deep Spiking neural network for forest surveillance	Dr. Basabdatta Bhattacharya	Sujith Thomas	SERB-CRG	3147973	18.02.2020 3 Years
Details of Industry Sanctioned Projects						
Biological Sciences						
1	Enzymatic pretreatment for enhancing anaerobic co-digestion of sewage sludge/ septage/Food waste/MSW for energy production	Dr. Srikanth Mutnuri	-	Larsen and Toubro Limited, Chennai	1239000	18.05.2020 3 Years
Chemistry						
1	Recovery of resources from worn out tires for enabling Circular economy	Dr. Sunil Bhand	Dr. Utpal Roy	Birla Carbon (ABG)	4200000	30.03.2020 5 Years
Chemical Engineering						
1	Recovery of water from Gaseous emissions	Dr. Srinivas Krishnaswamy	Dr. Amol Deshpande, Dr. Anirban Roy	Birla Carbon (ABG)	6300000	30.03.2020 5 Years
Details of Consultancy- Sanctioned Projects						
Biological Sciences						
1	Technical Vetting for 15KLD	Dr. Srikanth Mutnuri	-	Tide Technocrats Private Limited	177000	06.03.2020 1 Week
2	MTU Field Study	Dr. Srikanth Mutnuri	-	WASH Institute	1000640	09.09.2020 4 Months
Mechanical Engineering						
1	Fatigue Life Assessment Study	Dr. Vikas Chaudhari	Dr.Sachin Waigaonkar	John Deere India Pvt. Ltd	590000	03.06.2020 6 Months
Chemical Engineering						
1	Life cycle Assessment (LCA) for synthetic organic chemicals factory for manufacture of Dyes, Dye-/Intermediates & reactive Dyes	Dr. S D Manjare	-	Shree Pushkar Chemicals & Fertilizers Ltd	129800	23.01.2020 4 Months
2	Ionic liquid -based forward osmosis desalination : A Bench Scale Study	Dr. S D Manjare	-	Procter and Gamble Health Limited	330000	02.07.2020 6 Months
3	Environmental Impact Assessment of MAT 2	Dr. S D Manjare	-	Deccan fine Chemicals (India) Pvt Ltd	424800	17.06.2020 6 Months
Humanities and Social Sciences						
1	Climate Change Impact Assessment in Thiruvananthapuram Division Kerala	Dr. Rajiv Kumar Chaturvedi	-	IORA Ecologicals, under The Forest-PLUS 2.0 program	408000	19.06.2020 3 Months
CS&IS						
1	Colab Agreement	Dr. Ashwin Srinivisan	-	Reflexis Systems, INC, USA	2200000	31.03.2020 1 Years
2	TCS- Research advisory	Dr. Ashwin Srinivisan	-	TCS	720000	10.09.2020

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
International Projects Sanctioned						
Biological Sciences						
1	Integrated Track in Brain and Cognitive Science (iBRAIN)	Dr. Veeky Baths	-	Erasmus Programme European Union	12000000	15.01.2020 3 Years
3	Generation 2 Reinvented Toilet (G2RT)	Dr. Srikanth Mutnuri	Dr. Shannnon Yee (PI- GIT)	Bill and Melinda Gates Foundation (Georgia Institute of Technology, GIT)	7325040	03.10.2020 1 Year and 6 Months
Economics						
1	Food Insecurity, Intra-household Dynamics, and Lifecourse Outcomes in Low and Middle-Income Countries	Dr. Sukumar Vellakkal	-	UKRI-MRC-Lancaster	£ 54,876.09 (BITS share) approximately 5200000	12.10.2020 4 Years
Ongoing Sponsored Research Projects						
Biological Sciences						
1	Small Scale and sustainable household wastewater recycling	Dr. Srikanth Mutnuri	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	03.05.2017 3 Years
2	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	Dr. Angshuman Sarkar	ICMR	2477000	23.03.2018 3 Years
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	Dr. Rajiv Taliyan, Pilani	SERB	3435200	05.12.2018 3 Years
4	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. Arunalochechakra barti, (PGIMER), Chandigarh	SERB	2459000	12.12.2018 3 Years
5	TNF alpha mediated alternative splicing in type 2 diabetes: A genome wide approach	Jiss Maria Louis	Mentor: Dr. Indrani Talukdar	WOS-A DST	2068000	24.07.2019 3 Years
6	Development of Novel Biofilm Resistant Coat for Implant Devices from Moringa oleifera Leaf Extracts	Dr. Sumit Biswas	Dr. N N Ghosh	ICMR	3613000	13.09.2019 3 Years
7	Bioremediation and Digital Documentation towards the conservation of Cultural Heritage	Dr. Srikanth Mutnuri	Dr. Geetha B.,	DST- SHRI	3280288	17.09.2019 2 Years

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
8	Fine Mapping of the Chromatin structure of key genes involved in reproductive maturation and egg production in dengue vector mosquito, <i>Aedes aegypti</i>	Dr. Tushar Tirtha Saha	-	SERB- SRG	3159412	17.12.2019 2 Years
9	Doxorubicin loaded pegylated gold nano particles synthesis and to test chemoradiation potentials as drug delivery system and radiosensitizer for old squamous cancer cell line	Dr. Shameer Ahmed (Ph.D Student) Dr. Vijayashree Nayak(Mentor)	-	Goa Cancer Society	600000	03.08.2019 2 Years
10	Feecal Sludge Lab at Goa (1966 Batch)	Dr. Srikanth Mutnuri	-	1966 -1971	5077000	27.05.2019
Chemical Engineering						
1	Development of suitable material for visible light induced photocatalytic hydrogen production from industrial wastewater	Dr. Saroj Sundar Baral	Dr. Saibal Ganguly, Dr. Priyabrat Mohapatra	SERB	3583000	30.10.20107 3 Years
2	Process Improvements in Urrakh and Feni Production in Goa” (Pilot Scale Process and thermal Efficiency improvement measures)	Dr. S. D. Manjare	Dr.Pramod V. Pathak, Chairman , Environmental Impact Assessment Agency, Goa	DSTE, Goa and Navika Nursery, Padnem Goa	1000000	13.10.2017 3 Years
3	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	Dr. Sumit Biswas	SERB	2305578	24.10.2018 3 Years
4	Formulation of bio-functionalized cosmetic emulsions using biosurfactant and essential oil as green ingredients	Dr. Vivek R.	-	SERB- ECR	3027670	19.07.2018 3 Years
5	Mechanistic approach to design composite metal- carbon nanofiber oxygen electrodes for high-performance metal-air batteries	Dr. Richa Singhal	-	SERB –ECR	4559920	30.08.2018 3 Years
6	Mesoporous nanocomposites for controlling microbially induced corrosion caused by sulfate reducing bacteria	Dr.Sutapa Roy Ramanan	Dr. Meenal Kowshik	SERB-CORE	3260400	27.03.2019 3 Years
7	Continuous flow oil-water separation system using smart separators capable of low-voltage wettability switching	Dr. Pradeep Kumar Sow	-	SERB-ECRA	4651900	17.06.2019 3 Years
8	Development of Bimetallic catalyst for direct non-oxidative conversion of methane to higher hydrocarbons	Dr. Sharad M. Sontakke	-	SERB- EEQ	4250120	05.12.2019 3 Years
Chemistry						
1	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	Dr. Mainak Banerjee	Dr. Amrita Chatterjee	BRNS	2792500	29.12.2017 3 Years
2	Development of mesoporous silica (for alumina)-SiC- metal nanoparticles based nanocomposites for radar absorption application at high	Dr. N. N. Ghosh	Dr. Amrita Chatterjee	DRDO	1513000	10.09.2018 3 Years

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
	temperature					
3	Cyclic Peptide-based nanotubes for Efficient proton conducting material	Dr. Subhasish Roy	-	DST- Inspire	3500000	14.05.2018 5 Years
4	A Computational investigation on the reaction paths and spectroscopic properties of crown ethers	Dr. Anjan Chattopadhyay	-	BRNS	2480750	26.06.2019 3 Years
5	A Polydiacetylene-based fluorescent sensor for the detection of arsenic species and uranyl ion in water by conventional and nuclear analytical methods	Dr. Amrita Chatterjee	-	BRNS	3208355	27.11.2019 3 Years
Mathematics						
1	A study of homotopy invariants of a model category	Dr. Shilpa Gondhali	-	SERB MATRICS	660000	28.05.2018 3 Years
2	A Theoretical and Numerical Study of the Control Problems Involving Differential Equations with Memory Terms,	Dr. Anil Kumar	-	SERB MATRICS	660000	08.03.2019 3 Years
3	Magic and Antimagic Labelings of Graphs	Dr. Tarkeshwar Singh	Dr. A. Somoasundaram, Dubai	SERB	1954832	21.05.2019 3 Years
4	Partial Migration Phenomenon : A Game Theoretic Approach to Causes and Environmental Effects	Dr. Anushaya Mohapatra		SERB- SRG	1205292	03.12.2019 2 Years
5	Numerical approximation of Optimal Problems using Virtual Element Method	Dr. Anil Kumar	Prof. Sarvesh Kumar, IIST, Valiamala Thiruvananthapuram	SERB-CRG	1907400	08.01.2020 3 Years
Economics						
1	Impact of "Make in India" and new IPR policy on Innovation of MNCs and Indian MSMEs in Medical Device Sector	Dr. Rajorshi Sen Gupta	Dr. Aswini Kumar Mishra	ICSSR	600000	20.03.2019 2 Years
CS&IS						
1	Knowledge- Rich Deep Models for Optimisation	Dr. Ashwin Srinivasan	-	SERB	2250290	16.07.2017 3 Years
EEE						
1	Flying Ad Hoc Network for disaster rescue operations	Dr. Sarang C Dhongdi	-	SERB-SRG	2156000	23.12.2019 2 Years
Humanities and Social Sciences						
1	Coping with Displacement due to River Erosion in the Indian Sundarban and Lower Assam	Dr. Mohan Kumar Bera	-	ICSSR	450000	13.12.2019 1 Year
Mechanical Engineering						
1	A study on energy barrier to buckling in cylindrical shells	Dr. Sandeep Jose	-	SERB- ECRA	3287900	25.03.2019 3 Years
2	Multiscale modelling of noncarbon nanomaterials and their reinforced polymer composite materials and structures	Dr. Sandeep Singh	-	SERB- ECRA	1952460	25.03.2019 3 Years
3	Evaluation of Mechanical Performance of the 3-D Printed Peek polymer used in space applications	Dr. D. M. Kulkarni	Dr. Vikas Chaudhari, Dr. Iniyani Thiruselvam N.	ISRO	3629000	17.07.2019 3 Years
4	Drag Reduction by suppressing	Dr. Shibu	Dr. Pritanshu	ARDB/DRDO(a)	2080500	05.09.2019

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
	the Bi-Stability character of the wake	Clement	Ranjan	eronautics)		2 Years
5	Microfluidics sperm cell sorting device: addressing male infertility factor	Dr. Siddhartha Tripathi	-	SERB- SRG	2741440	23.12.2019 2 Years
6	Design and Development of Innovative Structural health Monitoring (SHM) system using embedded piezo based active sensing approach for Delamination Detection in Multi-layer composite Structures	Dr. Devandra Gokul Patil	-	SERB-SRG	2884060	23.12.2019 2 Years
Physics						
1	Room temperature Hydrogen Storage and sensing using Reduced Graphene Oxide-MoS2 Nanocomposites	Dr. E S Kannan	-	SERB	3061520	19.03.2017 3 Years
2	Ecofriendly flexible CZTS solar cells	Dr. Teny Theresa John	Dr. M. K. Jayaraj, CUSAT, Kochi	SERB	2925560	04.08.2017 3 Years
3	Noninvasive investigation of stem cell differentiation using an in house	Dr. Geetha Varier	Dr. P. Nandakumar (Mentor)	WOS-A	3201000	07.01.2019 3 Years
BIRAC BioNEST						
1	Enabling startups in Healthcare and environmental engineering	Development Grant	-	BIRAC BioNEST	29664000	03.03.2017 Got extension upto 31.12.2021
Industry Ongoing Projects						
Biological Sciences						
1	Biobleaching of limestone and clay to remove iron and other transition elements (Titanium, chromium, manganese, nickel and zinc)	Dr. Srikanth Mutnuri	-	ABSTCPL	1000000	15.05.2019 1 Year
Chemical Engineering						
1	Process Design and Development cost effective method for carbon-silica based hybrid fillers for application in rubber products	Dr. S. D. Manjare	Dr. T Sushil Kumar Rajan, Mexichem Industries Mumbai	Apollo Tyres, Chennai	6000000	15.04.2019 4 Years
Chemistry						
1	Development of Potocatalyst embedded Graphene based membranes for Treatment of Dye containing waste water under Sunlight.	Dr. N. N. Ghosh	Dr. Rajib Ghosh, Dubai	ABSTCPL & BITS PILANI	2610000	18.06.2018 3 Years
CS & IS						
1	Proposal for Appointment as Consultant for Implementation of Artificial Intelligence use-cases in Yard Operations and Onboard Ship Operations.	Dr. Ramprasad Joshi	Dr. Ashwin Srinivasan	Goa Shipyard Limited	2600000	16.04.2019 1 Year
2	Nokia Localization and Nokia health	Dr. Vinayak Naik	-	Nokia	1001000	22.07.2019 Open Ended
3	Use of cell phones for detecting and controlling infectious disease	Dr. Vinayak Naik	-	National Geographic Society	623000	22.07.2019 Open Ended

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
International Project Ongoing						
Biological Sciences						
1	Sanitation, water and solid waste for development	Dr. Srikanth Mutnuri		Agreement between EAWAG, Switzerland and BITS, Goa	726000	30.11.2018 Open Ended
2	Literacy and Cognition project (MPI)	Dr. Veeky Baths	Dr. Falk Huettig	Max Planck Institute, Germany	444493.14	13.11.2018 2 Years
Chemistry						
1	Novel micro and nano sensors for antibiotic resistance measurement.	Dr. Sunil Bhand & Dr Bin Xie	Dr. Utpal Roy, Dr. Nelida Leiva Eriksson, Lund University Sweden	SPARC, MHRD (Ministry of Education)	5105296	15.03.2019 2 Years
2	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; Kwaliti Photonic, Hyderabad; Affordable water solutions, Hyderabad; Society for Alternative Developments, New Delhi; and Society for Technology & Action for Rural Advancement, New Delhi.	Horizon H2020 (European Union) – DST India	20931000	31.03.2019 4 Years
CS&IS						
1	Mobile App for improving survival in fires through efficient egress: The role of impromptu indoor WiFi localization and georeferenced building maps	Dr. Vinayak Naik	Dr. Ashwin Srinivasan, Dr. Raja Sengupta, Canada, Liliana Perez, Canada	DST and IC-IMPACT Indio -Canadian Project	3831512	17.09.2019 2 Years
Consultancy Projects – Ongoing						
Biological Sciences						
1	Vitamin D increase in Mushrooms by exposing by UV light	Dr. Srikanth Mutnuri	-	Tropical Mushrooms & Zuari foods. (Kurade)	306800	06.06.2018 6 Months
2	Recovery and Purification of enzymes from spent Mushroom Substrate	Dr. Srikanth Mutnuri	-	Zuari foods & Farms pvt.Ltd/ Tropical Mushrooms Goa	715000	14.06.2019 18 Months
Chemical Engineering						
1	Performance assessment of MTB & Oxa production process	Dr. S D Manjare	-	Deccan Fine Chemicals (India) Pvt Ltd	401200	13.12.2019 4 months
2	Performance Assessment of 2,4,6- trichloroaniline (TCAN) production process	Dr. S D Manjare	-	Deccan Fine Chemicals (India) Pvt Ltd	401200	25.11.2019 3 months

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
CS&IS						
1	Tata Consultancy Services	Dr. Ashwin Srinivasan	-	Tata Consultancy Services	720000	06.08.2019 2 Years
2	Datalab Setup	Dr. Ashwin Srinivasan	-	Tata Consultancy Services	2460000	31.12.2019 Open Ended
3	1981 Batch Chair Professorship	Dr. Ashwin Srinivasan	-	1981 Batch Chair Professorship	180000	-
Humanities & Social Sciences						
1	English Translation of Two Literary works in Malayalam, Haritha Niroopanam Malayalathil (Green - Criticism in Malayalam) and Aa Aa Aanakkathakal (those Elephant stories)	Dr. Rayson K Alex	-	Association for the study of Literature and Environment (USA)	70000	29.01.2019 2 Years
2	From NDCs to pathways and Policies: Transformative climate Action After Paris	Dr. Rajiv Kumar Chaturvedi	-	IDDRI	1200000	19.06.2019 2 Years
EEE						
1	Image processing and machine learning techniques for leather species identification	Ms. Anjali Varghese (Ph.D Student)	Dr. A. Amaline Prince Mentor	TCS-RSP	25,34,000	09.08.2019 4 Years

Grants under DST- FIST Ongoing

S.No	Department	Period	Duration	Amt. Sanctioned(50:50 Basis)	Amount Released (Rs.)
1	Mathematics	August, 2015- August, 2020	5	3750000	1875000
2	Chemical Eng.	January, 2015- January, 2020	5	6200000	3100000
3	Biological Sciences	January, 2019- January, 2024	5	16000000	8000000
4	Physics	March, 2018-March 2023	5	29000000	14500000

COMPLETED PROJECTS

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Completion date
Biological Sciences						
1	Screening, isolation and identification of novel antimicrobial compounds from potential mangroves of Goa	Dr. Kundan Kumar	Dr. Utpal Roy	CSIR	2000000	31.01.2020
2	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	Prof. Arunaloake chakrabarti	DBT	3804600	30.06.2020
3	Study on the role of Tonoplast Intrinsic Protein Family members in arsenite accumulation and their transport in rice	Dr. Kundan Kumar	Dr. Sudhakar Srivastava, Banaras Hindu University	BRNS	2939900	31.03.2020
4	Bioactive compound -Enriched Functional Food ingredients from Dillenia Indica and Valorization of its Pomace	Dr. Srikanth Mutnuri	Dr. Anasuya Ganguly	Biotech Consortium India Limited (DBT Twinning)	4215000	14.03.2020
5	Response of Copepods to crude oil pollution and warming	Dr. Lalita V. Baragi	Dr. Srikanth Mutnuri (Mentor)	SERB-National Post Doctoral Fellowship	2250000	01.10.2020

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Completion date
6	Conservation initiative by restoration of windowpane oysters (placuna placenta) population in chicalim Bay area, Goa	Dr. Sumit Biswas		Wildlife Trust of India	170000	31.10.2020
7	Introducing cyanobacterial bicarbonate transporters into C 3 plants for enhanced photosynthetic performance	Dr. Sandhya Mehrotra	Dr. Rajesh Mehrotra	EMR- Core	3773000	05.08.2020
Chemistry						
1	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 Bhavana P	-	SERB	2822820	31.03.2020
2	A Comprehensive study on mechanochemical sp ² 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	-	SERB	3057560	27.06.2020
3	Development of PCDA-liposome based detection kit for Alzheimer's disease biomarker	Dr. Amrita Chatterjee	Dr. Malabika Biswas	SERB	2663200	21.06.2020
4	Nano-based detection of organophosphate pesticides using metal organic framework conjugates	Dr. Sunil Bhand	Dr Irani Mukherjee, IARI, New Delhi	NASF, ICAR	4308110 (BITS share)	11.01.2020
5	Computational Study of the Catalytic Mechanism Some Diaryldiselenide-based Glutathione peroxidase Mimetics	Dr. Raghu Nath Behera	-	SERB	1642280	23.07.2020
6	Design and synthesis of grapheme oxide based AIE-sensor for selective detection of Hg(II) and Organic mercury in aqueous medium	Dr. Amrita Chatterjee	Dr. Narendra Nath Ghosh	UGC- DAE Consortium for Scientific Research Proposal	1119399	31.03.2020
7	Experimental and Computational study of Boron Doped TiO ₂ and ZnO Nanocrystals	Dr. Jayadevan K.P.	Dr. Raghu Nath Behera	SERB	2332515	20.12.2020
Chemical Engineering						
1	Unmixed reforming (UMR) [®] of Methane for Hydrogen Production	Dr. Srinivas Krishnaswamy	Prof. Aniruddha B. Pandit, Institute of Chemical Technology, Mumbai	SERB	5611100	10.01.2020
2	Catalytic HI decomposition studies in membrane reactor for hydrogen production	Dr. Sharad Sontakke	-	BRNS	1933568	31.03.2020
Economics						
1	Towards a healthy consumption pattern for preventing chronic diseases in India: pattern and determinants in the consumption of substance, healthy and unhealthy diets over 1983-2012	Dr. Sukumar Vellakkal	-	PHRI-DST	1850750	31.08.2020
Mathematics						
1	Predictive Mathematical Modeling and Analysis for Effective Diagnosis and Control of Diabetes Mellitus with	Dr. P Danumjaya	-	SERB	1568490	22.03.2020

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Completion date
	associated Co-infections and Diseases among Indians.					
2	A study on the inequalities involving complex polynomials	Dr. Prasanna Kumar	-	Dept. of Atomic Energy	1304100	30.03.2020
3	Theoretical and numerical study of Elliptic and Parabolic partial differential equations with interferes	Dr. P Danumjaya	-	Dept. of Atomic Energy	1348100	31.03.2020
4	A Study on the Bernstein- type inequalities for the polar Derivative of a Complex Polynomial	Dr. Prasanna Kumar	-	CSIR	1646000	31.03.2020
5	Study on dark energy, dark matter and cosmic acceleration of the Universe in modified gravity	Dr. Gauranga Charan Samanta	Dr. Prasanta Kumar Das	CSIR	1696000	17.09.2020
Physics						
1	Studies on biomolecular transport through nuclear pore complexes using a dual fluorescence channel confocal microscope	Dr. Nandakumar Patincharath	Dr. Meenal Kowshik	SERB	4404104	15.06.2020
2	Spin seebeck Effect in novel heterostructures	Dr. Ram Shanker Patel	Dr. Kartik Senapati, Dr. Pratap Kumar Sahoo	SERB	5083821	20.03.2020
3	Signature of Space-time noncommutativity in high energy colliders	Dr. Prasanta Kumar Das	-	SERB	1885515	20.03.2020
4	Innovation in Science pursuit for Inspired Research (INSPIRE)	Dr. Rudranil Basu	-	DST- Inspire	1400000	16.11.2020
Mechanical Engineering						
1	An Acoustic Study characterization and standardization of the Sarasvati Veena	Dr. Pravin M Singru	Dr. Radhika Vathsan	SERB	3695560	20.09.2020
Humanities and Social Sciences						
1	Risk & Uncertainty Assessment for Railway Infrastructure due to Impacts of Climate Change	Dr. Rajiv Kumar Chaturvedi	-	Indian Institute of Management, Ahmedabad	224000	31.03.2020
Industry Completed Projects						
Biological Sciences						
1	Bioremediation of Red Mud using acidogenic fermentation byproducts and by Biopilling	Dr. Srikanth Mutnuri	-	ABSTCPL	3575000	31.05.2020
Chemical Engineering						
1	Electrochemical Process for Hydroiodic acid (HI) decomposition in Iodine-Sulfur Cycle: A feasibility study (Industry Sponsored Projects).	Dr. Pradeep Kumar Sow	-	ONGC Energy Centre	1169550	25.07.2020
Mechanical Engineering						
1	Study of lubricant and application method for enhanced surface finish and reduced draw load on cold drawn steel tubes	Dr. Varinder Singh	Dr. Amit Kumar Gupta, Dr. Srinivas P Regalla, Dr. Tufan Chandra Bera	Tube Investments of India Ltd, Chennai	2743500	05.09.2020

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Consultancy Projects Completed						
Biological Sciences						
1	Cloning of spot blotch disease resistance gene in wheat.	Dr. Rajesh Mehrotra	-	CIMMYT	1500000	31.12.2020
Chemical Engineering						
1	To carry out study on issue of volatile organic emission	Dr. Sharad M Sontakke	-	AEGIS Logistics Ltd.	216000	06.12.2019
3	Assessment of MNQ Production Process	Dr. S. D. Manjare	-	Deccan Fine Chemicals (India) Pvt Ltd	354000	28.02.2020
4	Assessment of BFBTF Production Process	Dr. S. D. Manjare	-	Deccan Fine Chemicals	354000	28.02.2020
5	Life cycle Assessment of Lote plot	Dr. S. D. Manjare	-	Laxmi Organic Industries Ltd	672600	31.07.2020
6	Environmental Audit (EA) for Ammonia, Urea, & Phosphate Fertilizers Units and Storage Sections.	Dr. S. D. Manjare	-	M/s.Zuari Agro Chemicals Ltd	851960	31.03.2020
7	Water Audit (WA) for Ammonia, Urea, & Phosphate Fertilizers Units and Storage Sections.	Dr. S. D. Manjare	-	M/s.Zuari Agro Chemicals Ltd	851960	31.03.2020
Mechanical Engineering						
1	Assing Rotomoldability of materials for Roots Multiclean Ltd. Tamil Nadu	Dr. Sachin Waigaonkar	-	Roots Multiclean Ltd. Tamil Nadu	125840	15.11.2019
Humanities and Social Sciences						
1	Preparation of Goa state Action plan on climate change, concept note and DPR	Dr. Rajiv Kumar Chaturvedi	-	NABARD Consultancy Services Pvt Ltd	365800	31.12.2020
NEW Approved Projects						
Biological Sciences						
1	Polyamines and their involvement in GnRH I regulations and their role in polycystic Ovarian Syndrome (PCOS)	Dr. Arnab Banerjee	Dr. Raviprasad Aduri	DBT	6300000	30th May 2020 3 Years
2	Design of "smart" scaffolds incorporating nano-bioactive molecules for treatment of type 2 diabetes mellitus associated chronic wounds	Dr. Meenal Kowshik	Dr. Jyutika Rajwade	ICMR	2750000	20th April 2020 3 years
3	Vetting of designs for Biofilter based odour control system for sewage treatment plant (11 pumping stations)	Dr. Srikanth Mutnuri	-	Larsen and Toubro Ltd (L&T)	428340	November 2020 1 Month
4	Mitigation of salt stress in Oryza sativa by overexpression of ABA dependent with No-Lysine kinase 9"	Dr. Kundan Kumar	-	SERB-CRG	4271340	16th December 2020 3 Years
5	Technical support for operating anaerobic digester at sada for Mormugao Municipal Council	Dr. Srikanth Mutnuri	-	Mormugao Municipal Council	600000	1 year
Humanities and Social Sciences						
1	Evaluation' as a Teaching method: A New pedagogical model to improve knowledge and critical thinking among students	Dr. Reena Cheruvalath	Dr.Geetha B	NCERT	370000	22nd June 2020 1 year

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Physics						
1	Atomically - thin photonic devices as hosts of single-photons and entangled-photon pairs emitters and single - spins for quantum sciences and technologies	Dr. E S Kannan (Co-PI)	Dr. Santosh Kumar (PI) (IIT Goa)	DST-Nano Mission	2300000 (BITS share) Total cost of project is 330 lakhs	09th June 2020
BITS Pilani, Goa Approved Projects						
1	RRSFP-BUILDER Level III	Dr. Sunil Bhand Coordinator Dr. N N Ghosh (Chemistry) Dr. Srikanth Mutnuri (Biological sciences) Dr. Vinayak Naik (CS &IS)	Faculty members from Chemistry, biological Science, chemical Eng, CS &IS	DBT	100000000	24th December 2020 5 years

Institute Funded projects

Additional competitive Research Grant Ongoing

S.No	Project Title	Principal Investigator	Department	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Start Date	End Date
1	Isolation of white blood cells using a passive hydrodynamic microfluidic device	Dr. Siddhartha Tripathi	Mechanical Engg	-	BITS	900000	01.11.2019	31.10.2021
2	A multi-layer neural network for dynamic visual scene learning, cognition, and decision implemented on GPU and SpiNNaker.	Dr. Basabdatta Bhattacharya	CS&IS	-	BITS	1000000	01.11.2019	31.10.2021
3	RESCUER – RESidential Cooling Usage for Energy Reduction	Dr. Vinayak Naik	CS&IS	-	BITS	556900	01.11.2019	31.10.2021
4	Versatile catalytic behavior of short peptide-based supramolecular assemblies	Dr. Subhasish Roy	Chemistry	-	BITS	1000000	01.11.2019	31.10.2021
5	Single atom catalysts on two dimensional nanosheets for the generation of renewable fuels	Dr. Kiran Vankayala	Chemistry	-	BITS	995000	01.11.2019	31.10.2021
6	Feasibility Study of Innovative Piezo-based System for Inhibition of Subsea Algal Growth and SHM of Marine Structures	Dr. Devendra Patil	Mechanical Engg	-	BITS	927500	01.11.2019	31.10.2021
7	Investigating the role of juvenile hormone signaling pathway components in chromatin remodeling of target genes using reverse genetic approach	Dr. Tusar T. Saha	Biological Sciences	-	BITS	1000000	01.11.2019	31.10.2021
8	First principles study of new two dimensional electrode materials for metal ion batteries	Dr. Swastibrata Bhattacharyya	Physics	-	BITS	3000000	01.11.2019	31.10.2021

S.No	Project Title	Principal Investigator	Department	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Start Date	End Date
9	Computational understanding of structural evolution and reaction kinetics during the lithiation and delithiation process of silicon anode in lithium ion battery	Dr. Paramita Halder	Chemical Engg	-	BITS			
10	Numerical Investigation of fluid flow and heat transfer around a rotating circular cylinder	Dr. Pritanshu Ranjan	Mechanical Engg	-	BITS			
11	High power compact UWB TEM antenna and mode converter design	Dr. Ashish Chittora	EEE	-	BITS	950000	01.11.2018	31.07.21
12	Design, Development and field trials of a prototype for point of source treatment of domestic waste water (DWW)	Dr. Anirban Roy	Chemical Engineering	-	BITS	800000	01.11.2018	31.07.21
13	Revival of Long-term forest monitoring in the Western Ghats, for assessing changes in ecosystem services under changing climate	Dr. Rajiv Kumar Chaturvedi	HSS	-	BITS	462500	01.11.2018	31.07.21
14	Design and Simulation of Micro devices for Development of Reliable Biosensor	Dr. Gautam G. Bacher	EEE	-	BITS	1000000	01.11.2018	31.07.21
15	Development of transition metal oxide based nanostructured surfaces for low-voltage tuning of wettability	Dr. Pradeep Kumar Sow	Chemical Engineering	-	BITS	917000	01.11.2018	31.07.21
16	Aqueous rechargeable metal- air batteries for large scale energy storage	Dr. Richa Singhal	Chemical Engineering	-	BITS	877000	01.11.2018	31.07.21
17	Biopolymers from thermophilic bacteria for fly- ash disposal and soil erosion prevention applications.	Dr. Vivek R	Chemical Engineering	-	BITS	670000	01.11.2018	31.07.21
18	Experimental investigation of unmixed combustion process with copper and nickel based material at high temperature.	Dr. Amol Deshpande	Chemical Engineering	-	BITS	1000000	01.11.2018	31.07.21
19	Experimental and Numerical Study on Crashworthiness of Aluminium-Composite Collapsible Energy Absorber under Quasi-static Loading	Dr. Kiran Dinkar Mali	Mechanical Engineering	-	BITS	525000	01.11.2018	31.07.21
20	MOF's and its composites for direct solar light driven photocatalytic degradation of dye	Dr. Sharad Sontakke	Chemical Engineering	-	BITS	1000000	01.11.2018	31.07.21

S.No	Project Title	Principal Investigator	Department	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Start Date	End Date
	effluents							
21	Design and Development of Underwater Acoustic Modem	Dr. Sarang Dhongdi	EEE	-	BITS	888750	01.11.2018	31.07.21
22	A study on energy barrier to buckling in cylindrical shells	Dr. Sandeep Jose	Mechanical Engineering	-	BITS	1000000	01.11.2018	31.07.21
23	Thermal Characterization of Loop Heat Pipe with nanofluids using Infrared Thermography	Dr. Vadiraj Hemadri	Mechanical Engineering	-	BITS	900000	01.11.2018	31.07.21
24	Atomistic continuum coupled methods for the large deformation simulation of two dimensional nanomaterials	Dr.Sandeep Singh	Mechanical Engineering	-	BITS	690000	01.11.2018	31.07.21
Research Initiation Grant (RIG)- Sanctioned								
1	Design of a dynamic recommender system to make the resource access control protocols in hard real-time system energy efficient	Dr. Shubhangi K. Gawali	CS&IS	-	BITS	100000	05-02-2020	04-02-2022
2	Modeling the Multi-Scale Dynamics of Recurrent Infectious Diseases	Dr. Anupama Sharma	Mathematics	-	BITS	200000	28-05-2020	27-05-2022
3	Completely Positive Maps in Quantum Information Theory	Dr. Mizanur Rahaman	Mathematics	-	BITS	200000	28-05-2020	27-05-2022
4	EnsembleGAN: Approximate Bayesian Computation in Generative Adversarial Networks	Prof. Snehanshu Saha	CS&IS	Dr. Soma. S. Dhavala	BITS	200000	28-10-2020	27-10-2022
5	An automated framework for mapping bioinformatics applications to cloud compute instances under time and cost constraints	Dr.Vipin Kizheppatt	EEE	-	BITS	200000	31-10-2020	30-10-2022
6	Numerical investigation of nucleation of droplets on a solid surface during dropwise condensation	Dr. Nilesh Dadashaheb Pawar	Mechanical Engineering	-	BITS	200000	12-11-2020	11-11-2022
7	Two-Phase Fluid-Structure Interaction of Flexible Structures	Dr. Vaibhav Joshi	Mechanical Engineering	-	BITS	200000	12-11-2020	11-11-2022
8	Adapting Regression Trees to Edge-Weighted Graphs using Watersheds	Dr. Sravan Danda	CS&IS	-	BITS	200000	05-11-2020	04-11-2022
9	Self-assembly of active and passive colloidal particles for applications in drug-delivery and micro-robotics	Dr. Indrani Chakraborty	Physics	-	BITS	200000	26-12-2020	25-12-2022
10	Vision based biomedical analysis of	Dr. Tanmay Tulsidas	CS&IS	Paulo Lobato Correia(BITS		31-12-2020	30-12-2022

S.No	Project Title	Principal Investigator	Department	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Start Date	End Date
	GAIT	Verlekar		Ph.D)		200000		
Research Initiation Grant (RIG)- Ongoing								
1	Assessment of Attitudes & Approaches of Individuals towards Segregation & Recycling of Everyday generated Household and Other Solid Wastes: A Study of Residents of BITS Pilani, K.K. Birla Goa Campus	Dr. Sayantani Sarkar	-	-	BITS	200000	30-01-2019	29-01-2021
2	AES: Automated Evaluation Systems for Computer Programming Course in Any University	Dr. Soumyadip Bandypadhyay	-	-	BITS	200000	20-03-2019	19-03-2021
3	Flat Holography: Integrable Field Theories as Dual to Asymptotically Flat Quantum Gravity	Dr. Rudranil Basu	-	-	BITS	200000	02-04-2019	01-04-2021
4	The Role of Juvenile Hormone in Chromatin Remodeling of Target Genes in mosquito Aedes Aegypti	Dr. Tusar Tirtha Saha	-	-	BITS	200000	06-04-2019	05-04-2021
5	Coping with Crisis of Livelihood and Disasters: A Study of Migration in Sundarban Islands	Dr. Mohan Kumar Bera	-	-	BITS	200000	12-04-2019	11-04-2021
6	Investigation of Electronic and Structural Properties of Low Dimensional Hybrid Materials using First Principles Calculations	Dr. Swastibrata Bhattacharyya	-	-	BITS	200000	18-04-2019	17-04-2021
7	Materials for Nitrogen Fixation and Water Splitting	Dr. Vankayala Kiran	-	-	BITS	200000	22-04-2019	21-04-2021
8	The Effects of Environmental Fluctuations on the Evolution of Partial Migration Phenomenon	Dr. Anushaya Mohapatra	-	-	BITS	200000	10-05-2019	09-05-2021
9	Mobile App for Improving Survival in Fires through Efficient Egress: The Role of Impromptu Indoor wifi Localization and Georeferenced Building Maps	Prof. Vinayak Naik	-	-	BITS	200000	13-05-2019	12-05-2021
10	Emergent Catalytic Behavior of Low Molecular Weight Peptide-based Supramolecular Fibrils	Dr. Subhasish Roy	-	-	BITS	200000	16-05-2019	15-05-2021
11	Modeling of Switches for beyond-CMOS Applications	Prof. Abhijit Jayant Pethe	-	-	BITS	200000	16-05-2019	15-05-2021
12	Link and Content	Dr. Swati	-	-	BITS	200000	12-06-2019	11-06-2021

S.No	Project Title	Principal Investigator	Department	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Start Date	End Date
	based Analysis of Online Recruitment in Terrorist Communities	Agarwal						

Research Initiation Grant (RIG)- Completed

S.No	Project Title	Principal Investigator	Department	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Start Date	End Date
1	Design of Compact High Power Antenna with Mode Conversion Capability for High Power Microwave Applications	Dr. Ashish Chittora	EEE	-	BITS	200000	12-01-2018	11-01-2020
2	Experimental Investigation on the Role of Oxygen Storage and Release Materials (OSRMs) in Unmixed Combustion (UMC) for Heat Transfer Applications	Dr. Amol Deshpande	Chemical Engg.	-	BITS	200000	03-02-2018	02-02-2020
3	Development of IoT System for Monitoring Gases	Dr. Sarang Dhongdi	EEE	-	BITS	200000	28-04-2018	27-04-2020
4	Arithmetic circuit implementation on Nanocrossbar and its performance evaluation	Dr. Pravin Sakharam Mane	EEE	-	BITS	200000	09-08-2018	08-08-2020
5	Microfluidic Sperm Cell Sorting Device: Addressing Male Infertility Factor	Dr. Siddhartha Tripathi	Mechanical Engg.	-	BITS	200000	20-09-2018	19-09-2020
6	Thermal Performance Characterization of Loop Heat Pipes with Nanofluids by Infrared Thermography	Dr. Vadiraj Hemadri	Mechanical Engg.	-	BITS	200000	21-09-2018	20-09-2020
7	Large Eddy Simulation of Fluid Flow and Heat Transfer from Rectangular Cylinder kept in Turbulent Stream	Dr. Pritanshu Ranjan	Mechanical Engg.	-	BITS	200000	26-09-2018	25-09-2020
8	Computationally Efficient 3D Ray Tracing Program for Analysis of Radome Enclosed Antennas	Dr. Hrishikesh Sonalikar	EEE	-	BITS	200000	03-10-2018	02-20-2020
9	Molecular and Ab-initio Modeling of Novel materials for energy applications	Dr. Paramita Halder	Chemical Engg.	-	BITS	200000	08-11-2018	07-11-2020
10	A Visuo-Motor Tool on Neuromorphic Hardware to perform Pattern Recognition, Decision Making and Action Selection in Real Time	Dr. Basabdatta Bhattacharya	Computer Science and Information Systems	-	BITS	200000	29-11-2018	28-11-2020
11	Development of a Mental Health Profile and Identifying Mental Health Issues among Student Community in BITS Pilani K K Birla Goa Campus: An Explanatory Sequential Mixed Method Study	Dr. Bidisha Banerjee	Hum. & Soc. Sci.	-	BITS	200000	10-12-2018	09-12-2020

Hyderabad Campus

Details of Government Sanctioned Projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Biological Sciences						
1	Development of a Standard method for identification of dope dyed and exhaust dyed polyester fibers/fabrics	Dr. Ruchi Jain Dey	Dr. Trinath Jamma	DRDO-LSRB	3982000	20.04.2020 3years
2	Efficient prediction strategy of covid 19based on pandemic data and immunoinformatics, integrated on artificial intelligence (AI) platform	Dr Debashree Bandopadhyay		DST -Matrix	550000	09.07.2020 1year
3	Efficient prediction strategy of covid 19based on pandemic data and immunoinformatics, integrated on artificial intelligence (AI) platform	Dr Debashree Bandopadhyay		CSIR	850000	17.07.2020 3 years
4	Molecular genetic analysis of schizophrenia patients	Dr. Naga Mohan K		DST	6042360	06.02.2020 3 years
5	To delineate domain-specific functions of Histone Deacetylase 6 (HDA6) in gene regulation and genomic instability and to develop a novel non-transgenic epigenetic mutagenesis tool for plant improvement via HDAC modulation	Dr. Gireesha Thipperudrappa		DST	4238696	31.12.2020 3years
6	Lipids and Cyclic nucleotides-mediated regulation of the lytic cycle in Toxoplasma gondii	Dr. Nishith Gupta		DBT-Wellcome Trust India Alliance	44994400	15.12.2020 5 years
7	Role of m6AReversible RNA Methylation in Oral Cancer	Dr. Piyush Khandelia	Dr. Vivek Sharma	CSIR	2250000	17.07.2020 3 years
8	Stem cell models to study the interplay between DNMTs and HDACs in schizophrenia	Dr. Naga Mohan K	Dr. Trinath Jamma	DST SERB CRG	5557760	31.12.2020 3years
Chemical Engineering						
1	Development of Endothermic Fuel for Supersonic Vehicle Applications	Dr. Srikanta Dinda		DST	4226360	23.12.2020 3years
2	Developmental studies on Environmental conditioning of QCE composite materials	Dr. Ramesh Babu A	Dr. Mithun Modal	DRDO	2489999	01.10.2020 9 Months
Civil Engineering						
1	Mitigation strategy to counter top-down cracking due to non-uniform contact stresses in Flexible Pavements-	Dr. Sridhar Raju	Dr. Chandu Parimi	NHAI	2652000	07.07.2020 3years
CSIS						
1	MUT-DROCO:MUltipathnetworking Test-bed for DROneCOmmunications-	Dr. Paresh Saxena	-	DST	1660600	03.01.2020 2years
EEE						
1	Design of miniaturized 5GHZ high pass filter (HPF) and study of interference due to multi chip packing in TR module/plank	Dr. Runa Kumari	Dr. Harish Dixit	DRDO	997395	25.11.2020 2years

2	Design of phase locked loop dielectric resonator oscillators for frequency synthesizers	Dr. Sourav Nandi	Dr. Harish Dixit	DRDO	993324	25.11.2020 2years
3	Training and Deployment of Nitrite Detection kits for Socio-Economic upliftment	Dr Sanket Goel	-	Swechha	64494	13.03.2020 6 months
4	Automated IoT based microfluidic electrochemiluminescence ECL biosensing platform for various biomarker detection	Dr. Prasant Kumar Pattnaik	Dr Sanket Goel	DST	5142307	24.02.2020 3years
5	MRI based non-invasive quantitative biomarker for early diagnosis and prognosis of brain tumor	Dr. Venkateshwaran Rajagopalan	Dr. Prabhakar rao & Prof. Yogeewari	DBT	1748360	21.02.2020 3years
6	Magnetoplasmonic studies on cobalt nickel based nanostructures	Ms Priya latha Mentor Dr. Runa Kumari	-	WOS-DST	2534000	12.02.2020 2 years
7	28S Ribosomal RNA capture Assay for the Sensitive Detection of Plasmodium vivax	Dr Sanket Goel	-	ICMR	1141280	- 18-08-2020 2 years
8	Design and multi -physics analysis of high power microwave antenna	Dr. Harish Dixit	Dr. Runa Kumari	DRDO	2488738	05.11.2020 2years
9	Design of High Power CWMagnetrons and investigations on strategies for their phase control	Dr. Joseph John, Department of Electrical Engineering, Indian Institute of Technology Bombay,	Dr. Harish Dixit	DST-SERB CRG	1600000	18.02.2020 2years
10	A Novel 2:1 Multiplexer based Approach to Implement Ternary Logic Circuits	Dr. Chetan Kumar V	-	DST-SERB	900900	09.11.2020 2years
11	Water soluble and flexible quantum 2D material devices for personal health care monitoring	Dr. Parikshit Sahatiya	-	DST SERB SRG	2660900	09.11.2020 2years
Mechanical Engineering						
1	Machine Vision based Adaptive Quality Assurance System for Aerospace Vehicle Assembly Unit	Dr. Kurra Suesh	Dr. Sujith R	DRDO	1550600	19.06.2020 3years
2	Machine Vision based Adaptive Quality Assurance System for Aerospace Vehicle Assembly Unit	Dr. Sandip Deshmukh S	Dr. Chandu Parimi	DRDO	3907830	24.6.2020 3years
3	Integrated smart phone and IOT enabled Microfluidic sensor for real time qualification of soil macronutrients conductivity and pH	Dr. Satish Kumar Dubey	Dr. Sanket Goel & Dr. Ponnalagu	DST	1871408	93.12.2019 2 years
4	Development of mesoporous materials with enhanced hydrogen uptake for fuel cell vehicles	Dr. Sujith R	-	DST SERB CRG	2567400	30.12.2020 3years
5	Enhancement of mechanical properties and forming behaviour of AZ31 Alloy using shear deformation technique for Automotive & Aerospace applications	Dr. Swadesh kumar singh(Gokaraju Rangaraju Institute of Engineering Bachupally	Dr. Nitin Kotkunde	DST SERB CRG	1280400	29.12.2020 3years
Mathematics						
1	Development and application	Dr. Anil N	Dr. Kishore	DRDO-ARDB	1781934	08.09.2020

	of a meshfree adjoint approach for aerodynamics shape optimization		Kumar			2 years
2	True relative of suslin normality theorem for elementary groups and transvection groups	Dr. Pratyusha Chattopadhyay	-	DST-Inspire	660000	11.02.2020 5years
3	Adaptive and efficient method of fundamental solutions for the numerical reconstruction of boundary data in two-phase inverse stefan problems	Dr. Gujji Mohan Murali Reddy	-	DST	1045000	06.01.2020 2years
4	Fine Selmer groups and class number divisibility of ideal class groups: A look into rank-computation of elliptic curves.	Dr Debopam Chakraborty	-	DST SERB	1421805	11.11.2020 2 Years
5	Weak Galerkin method for parabolic problems	Dr Jhuma SenGupta	-	DST SERB CRG	2203696	31.12.2020 2years
6	Security Analysis of stream cipher Salsa, ChaCha and some lightweight ciphers	Dr Sabyasachi Dey	-	DST SERB CRG	1245816	26.11.2020 2years
Physics						
1	Quantum back-action noise suppression through reservoir engineering and hybrid quantum systems.	Dr Subrahmanya Bhima Sankar Davuluri	-	DST SERB CRG	1333816	11.11.2020 & 2years

Sanctioned Industry Projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Biological Sciences						
1	A formulation to prevent transmission of SARS-CoV-2 virus	Dr. Suman Kapur	-	Corporate Social Responsibility	3000000	29.04.2020 6 months
2	Testing for Covid-19 using an available Platform	Dr. Suman Kapur	-	Corporate Social Responsibility	3150000	01.06.2020 4 months
Chemical Engineering						
1	Development of cost effective bio-sorbents to remove heavy metals form the effluent generated at HBL	Dr. I. Sreedhar	-	Hyderabad Batteries Ltd (HBL)	504000	30.01.2020 2 years
Chemistry						
1	Developmental studies on Environmental conditioning of QCE composite materials	Dr. Tanmay Chatterjee Chemistry	-	Chancuex Labs	1007000	9.12.2020 18 Months -
EEE						
1	2D Nanomaterials based Flexible Resistive Memory (Memristor)	Dr. Parikshit Sahatiya	-	Redpine Signals, India Pvt Ltd	814400	01.07.2020 2years-
CSIS						
1	Testing artificial intelligence system	Dr. Lov Kumar	Dr. BhamuMurthy	TestAlng Solutions Pvt. Ltd.	240000	01.02.2020 1year
Pharmacy						
1	Topical nanomicelles eye drop for delivering antifungal drug to treat corneal infection	Dr Nirmal J	-	Parenteral Drug Association (PDA)	2000000	- 28.07.2020 3years
2	Development and optimization of stable anti-leukemic drug loaded long circulating liposomes	Dr. Akash Chaurasiya	-	Parenteral Drug Association (PDA)	3000000	- 28.07.2020 3years

3	In-vivo experiments pertaining to pharmacokinetic studies on new conjugates)	Dr. Sajeli Begum	-	WIPRO	50000	11.11.2020 9Months
4	Evaluation of Novel Transdermal Device for Controlled delivery of drug	Dr. Punna Rao Ravi	-	Medicen Devise Technologies Pvt Ltd	1870890	16.11.2020 18 Months -
5	Design and Evaluation of Novel Transdermal Drug Delivery Systems	Dr. Punna Rao Ravi	-	Transform SciTech Pvt. Ltd.,	1297853	10.11. 2020 1year
6	Pre-Clinical efficacy evaluation of three synthetic peptides For the treatment of inflammatory bowel diseases & sepsis	Dr. D Sriram	Dr. Arti Dhar	ISSAR	2980000	01.01.2020 3years-

International Projects Sanctioned

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Humanities and Social Sciences						
1	Role of Environmental Entropy Dysfunction in explaining interstate variation calorie intake of some population cohorts in India	Dr Zakaria Siddiqui (India) and Dr Ronald Donato-Senior Lecturer & Academic Director, School of Commerce, university of South Australia	-	University of South Australia	240000	01.02.2020 6 Months-
Economics and Finance						
1	Socio-Economic Impacts of Cyclones and the Coping Strategies of the Local Communities in Odisha, India with a Special Focus on Women"	Dr. Archana Srivastava	Prof. Dolagobinda Pardhan, Kwantlen Polytechnic University	Shastri Indo-Canadian Institute	1000000	23.11. 2020 2 years-
Mechanical Engineering						
1	Benchmark studies of tornado induced wind loads between tornado simulators worldwide	Dr. Sabareesh G R & collaborative project with TPU, Japan, Tongji, China	-	Research center of wind Engineering	1400000	31.03.2020 1year
Consultancy Sanctioned Projects						
Civil Engineering						
1	Damages to Highway Property at GMR Pochanpalli	Dr. Sridhar Raju	-	Team Insurance	310000	01.12.2020 6 months
Economics and Finance						
1.	Urban Low-Income Households' Savings: Understanding Issues and Challenges in Indian Context	Dr.. Rishi Kumar	Dr. Archana Srivastava & Dr. Sudatta Banerjee	Dvara Research	1405000	21.07.2020 1year
Pharmacy						
1	Novel Formulation for oral bioavailability enhancement of anticancer drug	Dr. Akash C	-	Slayback Pharma	2068540	10.12.2019 1 year

ONGOING PROJECTS

Details of Government Ongoing Projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Biological Sciences						
1	Probing the functional and regulatory role of m6A reversible RNA methylation in skeletal myogenesis and muscle wasting	Dr. Piyush Khandelia	-	DST	5558360	27.03.2019 3years
2	Deciphering the role of host-microbiota derived bile acids in programming immune cell function during intestinal inflammation	Dr. Trinath Jamma	-	CSIR	2494000	17.05.2019 3years
3	Sequence based designs and characterization of peptide-amyloid nano materials exploring functionality	Dr. Ramakrishna Vadrevu	Dr. R. Krishnan	DAE-BRNS	2968650	29.12.2017 3 years
4	Ramanujam Fellowship	Dr. Gireesha Thipperudrappa	-	Ramanujam Fellowship	3800000	06.02.2018 5years
5	Harnessing mucosal immunity towards improved resistance against tuberculosis	Dr. Ruchi Jain Dey	-	DBT Ramalingaswamy	3250000	28.05.2018 5years
6	Identification and characterization of long noncoding RNA's involved in Genome stability	Dr. Vivek Sharma	-	DBT Ramalingaswamy	3250000	25.01.2017 5years
7	Conditional pathogenesis: understanding why potentially beneficial rhizobacteria turn pathogenic under certain environmental conditions	Dr. Sridev Mohapatra	Prof. Naga Mohan K	DBT	4516800	31.08.2018 years
8	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 protein microenvironments	Dr. Debashree Bandyopadhyay	-	DST	1942800	26.09.2018 3years
9	Understanding the role of long non coding RNA's (lnc RNA's) in transforming growth factor - beta (TGF-B) pathway in Glioblastoma.	Dr. Vivek Sharma	-	DST	4726480	16.11.2018 3years
10	Identification of the regulatory mechanisms executed by bile acids during inflammation induced colon cancer	Dr. Trinath Jamma	-	DST	4382650	16.11.2018 3years
11	Elucidating the role of long non coding RNAs (lncRNAs) in neuronal cell death during Japanese encephalitis (JE)	Dr. Vivek Sharma	Prof. Naga Mohan K	DBT	6876800	05.03.2019 3years
Chemical Engineering						
1	Reactive Transport Modeling and Simulation of Carbon Dioxide Sequestration in Deccan Volcanic Province	Dr. Vikranth Kumar Surasani	Dr. Balajikrishna Murthy	DST	2173600	22.03.2018 3years
2	Cracking of hydrocarbon fuel for a possible heat sink applications	Dr. Srikanta Dinda	-	DRDO	4065000	01.07.2018 2years
3	Development of superomniphobic surface for self-cleaning and anti-microbial applications	Dr. Nandini Bhandaru	-	DST INSPIRE	2800000	14.02.2017 5years

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
4	Modelling the capacity loss in lithium ion batteries during cycling	Dr. Balaji Krishna Murthy	Dr. Vikranth Kumar S	CSIR	1800000	24.07.2019 3years
5	Waste Minimization and Carbon Capture with Coal Flyash Doped Sorbents- A Two-Edged Sword	Dr. I Sreedhar	-	CSIR	1885000	24.07.2019 3years
Chemistry						
1	DESIGN AND SYNTHESIS OF DIVERSE PYRROLE-PYRIDINE BASED MOLECULES AS SELECTIVE SENSORS FOR Zn ²⁺ AND F-	Dr. Anupam Bhattacharya	-	CSIR	1652940	17.05.2019 3years
2	High potency of complex dietary β -glucan fibers as Cholesterol and Low-Density Lipoprotein lowering agents: A comprehensive mechanistic investigation through advanced dynamical simulations.	Dr. Durba Roy	-	DST	3666520	9.05.2019 3years
3	Investigations on naphthalene and anthracene based phosphosites/phosphates: important sources for alkene based new algeles and poly aryl alkanes	Dr. Manab Chakravarty	Dr. Amit Nag	CSIR	1620000	05.05.2017 3years
4	Photocatalytic reduction of CO ₂ to biofuels	Dr. Sounak Roy	-	CSIR	400000	02.05.2017 3years
5	DST INSPIRE Fellowship	Dr. Chanchal Chakraborty	-	DST INSPIRE Fellowship	3500000	13.12.2017 4years
6	Women Scientist (Dr. Atasi Mukherjee Under Prof. Manab Chakravarty	Dr. Atasi Mukherjee Mentor Dr. Manab Chakravarty	-	WOS-DST	3155000	16.11.2018 2years
7	Synthesis of highly stable Zr-based mixed -linker metal organic frameworks (MOFs) for humidity control and gas separation	Dr. Himanshu Aggarwal	-	DST	2198183	30.10.2019 2years
8	In search of unsymmetrically substituted anthracenyl π -conjugates as tunable mechanofluorochromic small molecules	Dr. Manab Chakravarty	-	DST	2825160	29.03.2019 3years
Civil Engineering						
1	Costal wetlands characterization using L and S bands of polarimetric SAR data	Dr. Rajitha	-	ISRO	1358000	13.11.2017 3years
2	Economic construction practice using bacterial inclusions in concrete in improve its durability	Dr. Arkamitra Kar	Dr. Jayati Ray Dutta & Dr. Mohna Bandyopadhyay	CSIR	1700000	02.05.2018 3 years
3	Development of a comprehensive methodology to improve traffic safety in Indian urban roadways based on advanced statistical techniques	Dr. Bandhan Bandhu M	-	DST	1139880	26.11.2019 2years
4	Experimental and computational studies of surface water quality parameters from morphometry and spectral characteristics	Dr. Jagdeesh Anmala	Dr. Murari R R Varma & Dr. Rajitha K	CSIR	4198080	22.07.2019 3years

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
5	Rainfall-Runoff modelling for lower godavari basin in a changing climate	Dr. K S Raju	Dr. Nagesh Kumar	CSIR	1600000	24.07.2019 3years
6	Quality Control in road works	Dr. Sridhar Raju	Dr. Prasanta Kumar Sahu	Govt of Telangana	990000	01.08.2019 1year
7	Improving the seismic performance of dynamically similar buildings using damper connected control technique	Dr. S C Mohan		DST	4314540	23.06.2017 3years
CSIS						
1	Interpretation of Tuberculin Reaction Using Medical Photography and Computer Aided Diagnosis.	Dr. Jabez Christopher	-	DST-SERB	994400	19.11.2019 2 years-
EEE						
1	Investigations of the effects of photon up-conversion materials on the electrical performance of ferroelectric/semiconductor heterojunction photovoltaic devices	Dr. Souvik Kundu	Kannan Ramaswamy and B. Venkat. Hariharan	SERB (EMR), DST	3563000	19.03.2018 3 years
2	Digital 3D Printed Electronic Technology for Space Electronic Packaging Applications	Dr. Sanket Goel	-	ISRO	2636000	02.08.2018 3years
3	Cardiac-Organ -On-Chip: Integrated microfluidic cardiac Platform for drug screening and toxicity detection	Dr. Sanket Goel	-	DST	4375800	19.08.2019 3years
4	Micro-plasma transistor for high temperature applications	Dr. Karumbaiah C	-	DST	2563070	28.12.2019 2 years
5	Microfluidic Enzymatic Biofuel Cell for Energy Harvesting and Blood Parameters monitoring	Dr. Sanket Goel	-	DSIR	1500000	01.02.2019 & 1 year
6	National Post-Doctoral Fellowship	Ms. Khairunnisa Mentor Dr. Sanket Goel	-	National Post-Doctoral Fellowship	1920000	28.02.2019 2years
Economics and Finance						
1	Impact of modern organized multi brand retail trade on street vendors case study of two capital cities	Dr. Archana Srivastava	-	ICSSR	450000	31.10.2019 1year
2	Does Financial Awareness lead to Better Financial Inclusion Outcomes? An Investigation	Dr. Durgesh Ch Pathak (PI)	Dr. Rishi Kumar	IMPRESS-ICSSR	450000	11.03.2019 1 year
3	Financial Inclusion through Urban Cooperative Banks: An Exploratory Study of Telangana State	Dr. Mini Thomas	-	IMPRESS-ICSSR	560000	11.03.2019 1 year
4	Impact of the ex-gratia for farmers' suicide on the surviving family member of the deceased farmers in Telangana	Dr. Thota Nagaraju	-	IMPRESS-ICSSR	420000	20.03.2019 1 year
Humanities and social sciences						
1	Structured dialogues for sustainable urban water management	Dr. Suchismita Satpathy	Dr. Biswanth Dash	DST	5726400	28.11.2019 5years

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Mechanical Engineering						
2	Formability Study of Inconel 625 alloy at Elevated Temperatures for Aerospace Applications	Dr. Nitin Kotkunde	-	DST	3143000	10.07.2017 3 years
3	Studies on wind resistant design for proposed Ligo India Observatory	Dr. Sabareesh GR	Dr. KRC Murthy & Dr. Rahul Nigam	IUCAA-LIGO	4502000	27.12.2018 3years
4	Development of image processing based portable device to measure surface strains in sheet metal forming	Dr. Kurra Suresh	-	DST	1724000	11.02.2019 3 years
5	3D printing of graphene nanocomposites for energy storage applications	Dr. Pavan Kumar Penumakala,	-	DST	2430040	22.03.2019 3years
6	Machinability assessment and material characterization of tungsten heavy alloys used in defense applications as KE penetrators	Dr. Amrita Priyadarshini	-	DRDO ARB	1478900	14.07.2019 3 years
7	Harvesting energy from underwater ocean currents through coupled vortex-induced vibration, flapping dynamics, electromagnetic induction and piezoelectric effects	Dr. Pardhasaradhi G	-	DST	2735370	23.12.2019 2years
8	Modelling and Simulation of quartz Accelerometer for navigation system	Dr. Satish Kumar Dubey	Dr. Arshad Javed, Sanket Goel, AK Gupta	DRDO-cars	538000	13.06.2017 3year
9	Experimental Investigation on an Energy Efficient Regenerative Thermal Management Technique for Hybrid Electric Vehicles".	Dr. Santanu Prasad Datta	-	DST	2793700	13.05.2019 3years
10	A solar assisted combined cooling, heating and energy source: An alternative energy source for rural India".	Dr. Santanu Prasad Datta	-	DST	3840496	16.09.2019 3years
11	Fully Integrated Smartphone and IoT enabled Microfluidic Sensor for Real-time Quantification of Soil Macronutrients, Conductivity and pH	Satish Dubey	Sanket Goel and Ponnalagu R N	DST	2798000	19.12.2019 1year
Mathematics						
1	Comparison of phase velocities of Rayleigh waves, Love waves and Torsional waves in various anisotropic geo-media	Sumit Kumar Vishwakarma	-	SERB - DST	136,800	27.06.2017 years
2	Characterizing the sets of periodic points of automorphisms on a solenoid	Sharan Gopal	-	SERB - DST	1998480	12.03.2018 3years
3	Modeling the hydrodynamics of various wave energy converter devices in real sea conditions	Santanu Koley	-	DST- INSPIRE	3500000	01.04.2019 5years
4	Cosmic acceleration with observation constraints of the universe in modified gravity	Dr. Pradyumn Kumar Sahoo	-	CSIR	2040528	02.08.2019
Pharmacy						
1	Advancing host-directed therapy for tuberculosis/MDR-TB: Development of novel PKB/AKT1 and Protein Kinase	Prof. D.Sriram	-	DBT TATA INNOVATION FELLOWSHIP	2700000	23.03.2016 3years

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
	R inhibitors as an adjunctive treatment for tuberculosis					
2	Development of smart capsule to target colorectal cancer	Dr. V Vamsi Krishna.Venuganti	Dr. Onkar P. Kulkarni	DST-SERB	5500000	16.08.2017 3years
3	Near-Infrared Light Degradable Nanomicellar ChemoPhotodynamic	Dr.Swati Biswas	Dr. Balam Ghosh	DST-SERB-CRG	3072000	03.05.2019 3years
4	Understanding the role of antimicrobial peptide S100A12 (Calgranulin C) mediated host defense in Pseudomonas keratitis and developing nano-tools for efficient delivery of S100A12	Sanhita Roy	Swati Biswas	DST-SERB-CRG	1637800	05.06.2017 3years
5	Bifunctional Gene-Expression Modulating Chemotherapeutic Agents as Improved Treatment Strategy for Cancer	Balam Ghosh	Prof. Swati Biswas	CSIR	2900000	15.05.2019 3years
6	Determination of wound healing (Pro-angiogenic) properties of peptide conjugate	Onkar Kulkarni		DRDO-INMAS	800000	03.10.2018 3years
7	Role of HDAC6 in pathogenesis of oral squamous cell carcinoma: regulation of IL-1beta, EMT and autophagy	Onkar Kulkarni	Balam Ghosh	ICMR	3500000	04.09.2019 3years
8	Agro-homeopathy: Potential of homeopathy as a tool to manage phytopathogen / nematode complex for a sustainable agriculture	Dr. Vidya sagar (plant pathology college of Agriculture, Rajendranagar)	Dr. A.Sajeli Begum	AYUSH	500000	17.01.2019 2years

Physics

1	Fundamental Physics in strong gravitational field of neutron stars	Prof. Sarmistha Banik	Dr. Asrarul Haque	DAE-BRNS	2439650	05.07.2018 3years
2	Quantum Gravity in Rindler space	Dr. Prasant Samantray	-	CSIR	1546000	10.05.2016 3years
3	Exceptional polynomials and their applications to Wigner Function"	Dr. K V S Shiva Chaitanya	-	DST-SERB	660000	22.03.2019 3years

Ongoing Industry Projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration Amount Sanctioned (INR)
Chemistry						
1	Zinc Air Battery	Sounak Roy	Chanchal Chakraborty	HBL (Hyderabad Batteries Ltd)	1350000 -	19.02.2019 2years
Civil Engineering						
1	Evaluation of the efficiency of bacterial inclusions in concrete	Dr. A. Kar	Prof. Sridhar Raju, Dr. Chandu Parimi, Dr. Jayati Ray Dutta	ALIENS Developers Ltd.	1140000	01.04.2019 2 years
2	Development of Pedestrian Facility Assessment Tool for Improving Pedestrian's safety condition in Hyderabad	Dr. Bandhan Bandhu	-	Awareness in Action	100000	01.04.2019 1 year
3	Seismic Certification for our range of racks based on	Dr. Mohan SC	-	HBL(Hyderabad Batteries Ltd)	118000	14.10.2019 1 year

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration Amount Sanctioned (INR)
	certificate of 3septs 2tier rack					
4	Semi field study to evaluate the efficacy of Geocomposite layer in place of conventional Granular Sub-base layer	Dr. Sridhar Raju	-	M/s Strata Geosystems, Mumbai	400000	16.12.2019 1 year
Mechanical Engineering						
1	Financial sanction of research project on Li Ion Battery	Dr. Sujith R	-	HBL (Hyderabad BatteriesLtd)	1190000	01.08.2019 2years
Pharmacy						
1	Pharmacokinetic and pharmacodynamic evaluation of new chemical entities for ocular diseases	Nirmal J	-	Incilia Therapeutics Pvt Ltd	81,000	19.11.2019 1year
2	Development & characterization of emulsion based drug product for the management of emetogenic cancer chemotherapy	Dr. Akash Chaurasiya	-	Slayback Pharma	702100	24.07.2018 3years
3	Identification of UGT-isoform specific substrates and inhibitors and their contribution in drug metabolism and systemic levels of bile secretions	Dr. Punna Rao	-	Acubiosys Private Limited	1175000	- 28.06.2018 1year
4	Pharmacokinetic Evaluation of Ocular In-Situ Gelling Systems Loaded with treatment of posterior uveitis	Dr. Punna Rao	-	Bristol – Myers Squibb(BMS)	340000	01.08.2019 1year
5	Formulation development and physico-chemical/in vitro/in vivo characterization of a nano-suspension formulation of an anticancer drug	Dr. Balaram Ghosh	Dr. Swati biswas	Reddy's Lab	900000	16.09.2016 3years
Humanities and Social Sciences						
1	Understanding the commercialization of breast milk from sociological perspective	Dr. Suchismita Satpathy	-	Awareness in Action	187000	16.12.2019 6months

International Ongoing Projects

S.No	Project Title	Principal Investigator	Co-Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Chemistry						
1	Develop of novel anti-leishmanial analogues loaded with novel nano- formulations	Dr. S Murgesan (Pilani) and 1.Dr.Rebeca Alonso Nanovex biotechnologies S L Spain	Dr. K V G Chandra Sekhar CO-PI (Hyd)	DBT	1300000	26.03.2018 2years
Civil Engineering						
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. Anasua GuhaRay & Dr. Wei Wu (University of Vienna, Austria)	Dr. Arkamitra Kar	8)	640000	07.05.2019 2 years
2	Sweden-Volvo Educational Research Foundation	Dr. Prasanta Kumar Sahu	-	Sweden-Volvo Educational Research Foundation	223881	01.03.2019 1 year
3	Congestion Pricing: Planning for optimal strategies &	Dr. Prasanta Kumar Sahu and	Dr. Bandhan Majumdar and Prof.	SPARC - MHRD,	2939493	15.03.2019 2 years

S.No	Project Title	Principal Investigator	Co-Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
	commuters behavioral implications under different pricing schemes	Dr. Dimitris Potoglou (Cardiff University)	Asoke Kumar Sarkar (Pilani Campus) and Dr. Georgina Santos(Cardiff University)	Govt. of India		
4	Transport policy interventions to curb particulate matter emissions in Chandigarh	Dr. Prasanta Kumar Sahu	Dr. Bandhan Bandhu Majumda	Global Challenges Research Fund, UK	2562000	29.10.2019 1 year
5	Prevention of Hazardous field - firing of bagasse and its sustainable utilization as a raw material in an innovation industrial process	Dr. Srinivas Appari and Prof. Shinji Kudo (KYUSHU University)	Dr. Bahurudeen & Dr. Prassanta Kumar Sahoo and Dr. Koji Nakabayashi (KYUSHU University)	SPARC - MHRD, Govt. of India	2879650	15.03.2019 2years
EEE						
1	Development of Methodologies for Self-Aware Network-on-Chip Design (India-Austria)	Dr. Soumya J (India) and Dr. Jantsch Axel, Institute of Computer technology, Austria	-	DST-Austria	889000	21.02.2019 2years
2	Indo-Norwegian collaboration in Autonomous Cyber-Physical Systems	Dr. Soumya J (India) and Prof. Lingareddy C (Associate Professor, University of Agder)-	-	Norwegian Research Council"	4243000	29-01-2019 3years
CSIS						
1	Network Coding for Multipath Transport	Dr. Paresh Saxena	-	AnsuR Technologies AS , Oslo Norway	547200	21.10.2019 4 months
Pharmacy						
1	UK-India Centre for Advanced Technology for Minimization of indiscriminate use of Antibiotics (UKICAT-MA)	PI - Dr. Prashant Garg (LVPEI),	Dr. V Vamsi Krishna Venuganti	DBT-MRC, UK	3500000	03.08.2015 3years
Mechanical Engineering						
1	Sustainable technology solutions for energy efficiency in the jageery industry	Dr. M. Srinivas	1. Dr. K Srinivas Reddy & 2. Dr. V Srinivas	Royal Academy	4800000	01.04.2018 2 years

Consultancy Ongoing Projects

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Humanities and Social Sciences						
1	AP HRDI - Entrustment of Studies - Cyclone Titli	Dr. Biswanath Dash	-	Cyclone Titli(Bapatla place)	120000	01.04.2019 1 year
Mechanical Engineering						
1	Automation of sample preparation process for pharmaceutical Applications	Dr. Y V D Rao	Dr. Arshad Javed	Aizant Drug Research Solutions Pvt.Ltd	1548000	01.08.2019 1year

COMPLETED PROJECTS

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
Biological Sciences					
1	Protein structure and stability modulation due to In-Cell and In-Vitro Crowding: Molecular insights on the origin of the effects of crowding	Dr. Ramakrishna Vadrevu	-	DST	5436000
2	Polymorphism studies and molecular characterization of plasmodial Rhostry neck protein 2 (RON-2) from Indian fields isolates	Prof. Vidya Rajesh	-	DST	3492000
3	Mechanistic basis of abnormal neurogenesis due to HSSN1E-associated DNA Methyltransferase 1 (Dnmt1) mutation and pharmacological intervention for phenotypic correction	Dr. K Naga Mohan	Prof. Yogeeswari	DBT	6845800
Chemistry					
1	Synthesis, study of optical properties and Anticancer activity of unique di-substituted tetracyanoquinodimethanes	Dr. Jayanti Subbalakshmi	-	DST	2574605
2	Efficacy of Appropriately Tailored Biopolymer and Carbonaceous Adsorbents for the separation and Recovery of Europium	Dr. N. Rajesh	Prof. Vidya Rajesh	DST	2959370
Civil Engineering					
1	Performance evaluation of backfill soils partially replaced with building derived materials	Dr. Anasuya Guhary	Dr. Naveen James Dr. Arkamitra Kar	DST	2443710
2	Multiobjective evolutionary approach for solving water distribution network design optimization	Dr. A Vasanth	Dr. Murari Varma	CSIR	2235400
EEE					
1	STRATEGIES FOR FAULT-TOLERANT NETWORK-ON-CHIP DESIGN "	Dr. Soumya J	-	DST	2593140
2	Metal-Oxide and nano composite based low-power non-volatile switching device : a novel approach	Dr. Souvik Kundu	Prof. Souri Banerjee	DAE-BRNS	3490650
3	Underwater Characterization of solar cells and their optimization	Prof. Sanket Goel	Dr. Sudha Radhika	DRDO-cars	985000
Mechanical Engineering					
1	Design and Development of an Automated Flow Calibration Unit for Fuel and Oxidizer Injectors in a Pneumatic Control System	Dr. Sandip Deshmukh S	Dr. Supardeepan K & Dr. Rajesh Kumar Tripathy	DRDO	100000
2	Enhancement of mechanical properties of Ti-6Al-4V using constrained groove pressing and heat treatment	Dr. Amit Kumar Gupta	-	DRDO	4560,000
3	Hydrogen storage in mesoporous polymer derived ceramics for automotive applications	Dr. Sujith R	1. Dr. R. Rameshwaran 2. Prof. N. V. Ravi Kumar (IIT Madras)	DST-SERB	4238240
4	Cryogenically-Conditioned Micro and Nanoencapsulated Phase Change Material Slurries for Cool Thermal Energy Storage Applications	Dr. R. Parameshwaran		DST	2776340
5	Application of topology optimization to enhance energy efficiency and performance of industrial manipulator	Dr. Arshad Javed		DST	2943600
Humanities and Social Science					
1	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	M Suchitra	Centre for Development Studies	315000
Pharmacy					
2	Investigations on pro-inflammatory cytokine inhibitory low molecular weight metabolites of Pseudomonas sp. ABS -36 for the treatment of renal injury	Prof. Sajeli Begum	Dr. Onkar Prakash Kulkarni	DST	2437000

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
3	Development of a Non-invasive biodegradable polymeric microprojection ocular patch for effective corneal delivery of anti-microbial agents to treat fungal infections of eye	Dr. V Vamsi Krishna Venuganti	-	ICMR	4225150
4	Design, Synthesis and Biological Evaluation of HDAC3 Selective Inhibitors as Long Term Memory Enhancers	Dr. Balaram Ghosh	Dr. Swati Biswas	DST	2987800
Mathematics					
1	Development of an accurate and robust unstructured grid-based adjoint approach for compressible turbulent flows	Dr. Anil N		DST	1590600
Industry Completed Projects					
Biological Sciences					
1	Study to be conducted in collaboration with Telangana State Pollution Control Board	Dr. Suman Kapur		Central pollution control Board CPCB	950000
Completed Consultancy Projects					
Humanities and Social Science					
1	AP HRDI - Entrustment of Studies - Cyclone Titli	Dr. Biswanath Dash		Cyclone Titli (Bapatla (place))	100000
Economics and Finance					
1	Sustainability of Cashless Banking in Unorganized Retail Sector: Issues and Challenges ahead	Dr. Archana Srivastav	Dr. Rishi Kumar	IIBF (Indian Institute of Banking and Finance)	250000
Completed International Projects					
CSIS					
1	Parallax Lightweight code self-verification for IoT Devices	Dr. C. Hota	Prof. Herbert Bos, VU University Amsterdam, Netherlands	Nwo-Deit (Indo-Dutch)	3830000
Pharmacy					
1	Strategies against antibiotic resistance in Mycobacterium tuberculosis and ESKAPE pathogens; new drugs and new targets	Dr. D Sriram	Dr. P Yogeeswari	Indo-Sweden-	6700068
DST FIST					
S.No	Department	Period	Duration	Amt. Sanctioned (50:50 Basis)	BITS share (in Lakhs)
Grants under DST- FIST Ongoing					
1.	Pharmacy	Feb 2019 to Feb 2024	5	13440000	6720000
2.	Mathematics	December 2015 to December 2020	5	4500000	2250000
S.No	Department	Period	Duration	Amt. Sanctioned (50:50 Basis)	BITS share (in Lakhs)
Grants under DST- FIST Completed					
1.	Biology	April 2014 to March 2019	5	11000000	5500000
2.	Chemistry	August 2014 to August 2019	5	10000000	5000000
3	Civil Engineering	December 2014 to December.2019	5	9000000	5000000
Institute Sanctioned RIG Projects					
S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (INR)
1.	Gpp mediated inter-cell communication and biofilm formation	Biological Sciences	Dr. Kirtimaan Syal	BITS	200000

S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (INR)
2	Techno economic feasibility analyses of sustainable energy systems using simulation based optimization paradigm	Chemical Engineering	Dr. Arnab Dutta	BITS	200000
3	Next Generation Seismic Vulnerability and Loss Assessment Models for Highway Bridges	Civil Engineering	Dr. Shivang Shekhar	BITS	200000
4	Data enabled lot system for Noise monitoring, analysis and mitigation (DIN)	CSIS	Dr. Manik Gupta	BITS	200000
5	Conversational Information Systems for low text-illiteracy contexts	CSIS	Dr. Dipanjan Chakraborty	BITS	200000
6	Real – time performance analysis of network coding implementation	CSIS	Dr. Paresh Saxena	BITS	198520
7	Marr on the Microprocessor: A prelude towards understanding Marr's bottom 2-levels in Brains and Machines	CSIS	Dr. Venkatakrishnan Ramaswamy	BITS	200000
8	Permutation polynomials over finite fields	Mathematics	Dr. Rohit Gupta	BITS	200000
9	Banla, Telugu and Oriya: Examining the feasibility of automatic identification of Indian accents in English	HSS	Dr. Pranesh Bhargava	BITS	200000
10	Effect of filler on the mechanical performance of adhesively bonded joints	Mechanical Engineering	Dr. Amol Vuppuluri	BITS	200000
11	Polymer composites for water-lubricated hydropower bearing applications	Mechanical Engineering	Dr. Prabakaran Saravanan	BITS	200000
12	Simulation study of desiccant-wheels coated with desiccant-material having a non-conventional sorption-isotherm	Mechanical Engineering	Dr. Mrinal Ketan Jagirdar	BITS	200000
13	Aerodynamic Shape Optimization using Feature-Based CAD systems and Adjoint Methods	Mechanical Engineering	Dr. Dheeraj Agarwal	BITS	200000

Institute Sanctioned Opera Award Projects

S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount sanctioned (INR)
1	Opera	Biological Sciences	Dr. Nishit Gupta	OPERA	420000
2	Opera	Biological Sciences	Dr. Shuvadeep Maity	OPERA	420000

Institute Sanctioned ACRG Projects

1	Data enabled Systems for Tracking and Evaluating Student Stress (DeSTRESS)	CSIS	Dr. Manik Gupta	BITS	700000
2	Towards understanding Computational Principles in Deep Networks & Brains	CSIS	Dr. Venkatakrishnan Ramaswamy	BITS	1000000
3	Minority Investor Protection and Business group ownership structure in India	Humanities and Social Sciences	Dr Nivedita Sinha	BITS	850000
4	Development of a robust and efficient crack detection technique for wind turbine rotor blades using nonlinear vibration response characteristics	Mechanical Engineering	Dr Brajesh Kumar Panigrahi	BITS	1000000

S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount sanctioned (INR)
5	Chatter Identification & Control for Thinwalled Workpiece Machining	Mechanical Engineering	Dr Kundan Kumar Singh	BITS	1000000
6	Design of Commercially Viable Compact and Efficient Planar Multi-Port Antennas for WLAN and 5G Applications	EEE	Dr Sourav Nandi	BITS	1000000

Institute Ongoing RIG Projects

S.no	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
1	Synthesis of highly stable Zr based mixed-linker metal organic frameworks (MOFs) with fcu and hex topology for gas separation and sensing	Chemistry	Dr Himanshu Aggarwal	BITS	200000
2	Bicycle and Pedestrian Modelling in Hyderabad	Civil Engineering	Dr. Bandhan Majumdar	BITS	200000
3	Nanocomposites synthesis and stability enhancement for methane combustion	Chemical Engineering	Dr. Satyapaul Singh Amarthaluri	BITS	200000
4	ReSeThIoT: Building Research Framework for Investigating Security Threats for Internet of Things over WiFi.	CSIS	Dr. Rajib Ranjan Maiti	BITS	200000
5	Performance Evaluation and Behavioral Study of Trajectory and Discontinuous Methods based Metaheuristics.	CSIS	Dr Jabez Christopher	BITS	200000
6	Cleanroom free solution processed fabrication of flexible nanoelectronic devices for sensing applications	EEE	Dr.Parikshit Sahatiya	BITS	200000
7	Detection of sleep related disorders from various physiological signals using multiscale analysis and deep neural network	EEE	Dr.Rajesh Kumar Tripathy	BITS	200000
8	Design and Synthesis methodologies for CNFET-based Multi-Valued Logic Circuits.	EEE	Dr.Chetan Kumar V	BITS	200000
9	Design and development of an instrumentation system to measure dynamic signals	EEE	Dr.R. N. Ponnalagu	BITS	200000
10	Synthesis of nano-porous metal oxide composite material for water splitting application	EEE	Dr.Karumbaiah C N	BITS	200000
11	Design and Development of an optimized Electrical Interface for Smart Hybrid Microgrid and Energy Storage for Peak Load Saving	EEE	Dr.Ankur Bhattacharjee	BITS	200000
12	Miniaturization and Enhancement of port isolation of MIMO antennas	EEE	Dr.Sourav Nandi	BITS	200000
13	Energy Efficient Mechanisms and Algorithms for 4G and 5G Broadband Wireless Networks	EEE	Dr Prashant K.Wali	BITS	200000
14	Design and development of an optimized electrical interface for Smart Hybrid Microgrid and energy storage for peak load shaving, demand side management and energy security	EEE	Dr K Bhargav Kumar	BITS	200000
15	The Notion of Time in the Philosophy of Nagarjuna	Humanities and Social Sciences	Dr. A K Jayesh	BITS	200000
16	Wilde and Manto: A Comparative Study of Writers on Trial	Humanities and Social Sciences	Dr Anhiti Patnaik	BITS	200000
17	A study of contemporary epistemological and ethical political challenges confronting genomics research in India	Humanities and Social Sciences	Dr Aswathy Raveendran	BITS	200000
18	Impact of Remittances, Financial Development and Institutional Structure on Poverty: An Empirical Evidence from Developing countries.	Economics and Finance	Dr Sunny Kumar Singh	BITS	167000
19	Regional Variation in Women's Employment in Rural India: Evidence from Bihar and Andhra Pradesh.	Economics and Finance	Dr Bheemeshwar Reddy. A	BITS	200000
20	Social Conflicts: Role of Development in the Presence of Electoral Concerns	Economics and Finance	Dr Dushyant Kumar	BITS	158000
21	Women on Board and Corporate Policies in India.	Economics and Finance	Dr Shreya Biswas	BITS	200000
22	Mobilizing Clean Energy Finance	Economics and Finance	Dr Nivedita Sinha	BITS	200000
23	Adaptive Discretization of Parabolic Integro-differential Equations by Finite Element Methods.	Mathematics	Dr Gujji Murali Mohan Reddy	BITS	200000

S.no	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
24	DPG method for parabolic problems	Mathematics	Dr Jhuma Sen Gupta	BITS	200000
25	Holomorphic Characterizations of the Approximation Property and Its Variants	Mathematics	Dr Deepika	BITS	200000
26	On generating some new families of congruent and non-congruent numbers	Mathematics	Dr Debopam Chakraborty	BITS	150000
27	Hypersingular Integral Equation Techniques for Wave-structure Interaction Problem	Mathematics	Dr Santanu Koley	BITS	200000
28	Conditional von Neumann entropy and its implications in quantum information processing tasks	Mathematics	Dr Nirman Ganguly	BITS	196000
29	Cryptanalysis of some Symmetric Key Ciphers	Mathematics	Dr Sabyasachi Dey	BITS	200000
30	Investigation of the weldability of the mild steel during A-TIG welding.	Mechanical Engineering	Dr Ravi Shanker Vidyarthi	BITS	200000
31	Flow induced vibration/flapping dynamics of multi-layered flexible foil in a uniform flow	Mechanical Engineering	Dr Pardha Saradhi Gurubelli Venkata	BITS	200000
32	Friction and Wear Investigation of Ceramic Coated Commercial Rotor	Mechanical Engineering	Dr Piyush Chandra Verma	BITS	200000
33	Effect of inherent nonlinearities on operational failure of damaged structural elements	Mechanical Engineering	Dr Brajesh Kumar Panigrahi	BITS	200000
34	Sustainable High Speed Micromachining Process Development for Thin Beam Manufacturing	Mechanical Engineering	Dr Kundan Kumar Singh	BITS	200000
35	Liquid Jet in Crossflow- Effect of Injector Geometry	Mechanical Engineering	Dr Anubhav Sinha	BITS	200000

Institute Ongoing Opera Award Projects

S.no	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
1	Opera	Chemical Engineering	Dr. Nandini B	BITS	420000
2	Opera	EEE	Sayan Kanungo	BITS	4,20,000
3	Opera	EEE	Dr. Rajesh Kumar Tripathy	BITS	420000
5	Opera	Humanities and Social Sciences	Dr. Lavanya Suresh	BITS	420000
6	Opera	Physics	Dr. Prashant Kumar Samanthy	BITS	420000
7	Opera	Mechanical Engineering	Dr PardhaSaradhi G V	BITS	420000
8	Opera	Biological Sciences	Dr. Vivek Sharma	BITS	420000
9	Opera	Biological Sciences	Dr. Trinath Jamma	BITS	420000
10	Opera	EEE	Dr. Surya Shankar Dan	BITS	420000

Institute Ongoing ACRG Projects

S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
1	Differential expression and regulation of GluN2A/GluN2B subunit containing NMDA receptor by Src kinase in MAM -induced cell based model of schizophrenia	Biological Science	Dr. Pragya Komal	BITS	700000
2	Deciphering the role of gut microbiota-derived secondary bile acids in metabolic rewiring of macrophages: implications in colon cancer	Biological Sciences	Trinath Jamma	BITS	985000
3	To elucidate novel mechanisms of Sn RK1-AMPK family kinases in plant antiviral defense and human metabolism regulations	Biological Sciences	Gireesha T M	BITS	995000
4	Design of highly stable fluorescent metal-organic frameworks for iodine capture.	Chemistry	Dr. Himanshu	BITS	1000000

S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
			Agarwal		
5	Synthesis of Highly Functionalized and Medicinally Potential Bioactive Heterocycles through Trifluoromethylation Cyclization Strategy	Chemistry	Dr .Tanmay Chatterjee	BITS	800000
6	Urban road safety management through evaluation of operating speed and geometric consistency	Civil Engineering	Dr Bandhan Bandu Majumdar	BITS	800000
7	Underwater Superoleophobic Surfaces for Oil/Water Separation	Chemical Engineering	Dr. Nandini B	BITS	950000
8	Investigation of the mechanical properties of ATIG welded mild steel and Ti6Al4V alloy	Mechanical Engineering	Dr Ravi Sankar Vidyarthi	BITS	950000
9	Fate of Drug Encapsulated Ultradeformable Lipid Vesicles after Subconjunctival Delivery	Pharmacy	Nirmal J	BITS	1000000
10	Surface Modified Nanoparticulate Carrier System for the Effective Delivery of Antileukemic Drug	Pharmacy	Dr. Akash Chaurasiya	BITS	1000000
11	Design and development of an AI-based Remote Fault Signature Analyzer (ReFSA) for condition monitoring of rotor bar failures in an Industrial electrical machine	EEE	Dr.Sudha Radhika	BITS	930000
12	Black TiO ₂ nanotubes for detection and degradation of pollutants in drinking water	EEE	Dr.Karumbai ah C N	BITS	1000000
13	Efficient reconstruction of boundary data using the method of fundamental solutions for the two phase inverse Stefan problem	Mathematics	Dr Gujji Murali Mohan Reddy	BITS	700000
14	Modeling the hydrodynamics of porous breakwaters in ports and harbors under irregular and multidirectional incident waves.	Mathematics	Dr Santanu Koley	BITS	700000
15	An Indigenous Energy Efficient Thermal Management Strategy of Buildings for all Climatic Conditions across India	Mechanical Engineering	Dr.Santanu Datta P	BITS	1000000
16	Design and Indigenous Development of a Biaxial Tensile Test Setup on Uniaxial Machine for Sheet Metal Forming	Mechanical Engineering	Dr.Nitin Kotkunde	BITS	1000000
17	RISC-V based Approximate Processor and its FPGA Prototype for Image processing Applications	EEE	Dr.Chetan Kumar V	BITS	470000
18	Design and Development of 3D Printer for Carbon Fiber Reinforced Composites	Mechanical Engineering	Dr Kurra Suresh	BITS	1000000
19	Synthesis of core-shell nanoparticles (CSNs) for photocatalytic reforming	Chemical Engineering	Dr. Satyapaul Singh Amarthaluri	BITS	1000000
20	Blockchain Enabled Solutions for Integration of MHR with Access Control and Personally Identifiable Information	CSIS	Dr. Subhrakanta Panda	BITS	800000
21	Development of a New Vegetable-Oil-Based Dielectric Fluid for Liquid-Filled Transformers	EEE	Dr.Mithun Mondal	BITS	800000
22	Direct growth of 2D materials by Chemical Vapor Deposition (CVD) on flexible substrates and its application in wearable electronics	EEE	Dr.Parikshit Sahatiya	BITS	1000000
23	Numerical and Experimental Investigation of Insect/Bird Flight Inspired Flexible Flapping Wing Propulsion	Mechanical Engineering	Dr Pardha Saradhi G V	BITS	950000

Completed Institute Projects

S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (INR)
1	Differential expression and function of nicotinic acetylcholine receptors(nAChRS) in excitatory versus inhibitory neurons due to impairment of Src	Biological Sciences	Dr. Pragya Komal	BITS	200000

	family-tyrosine kinase pathway in schizophrenia				
2	Development of new synthetic methodologies for fluoroalkylation reactions by visible - light-photocatalysis : Access to new classes of potent molecules	Chemistry	Dr. Tanmay Chatterjee	BITS	200000
3	Development of new synthetic methodologies for fluoroalkylation reactions by visible - light-photocatalysis : Access to new classes of potent molecules	Chemistry	Dr. Tanmay Chatterjee	BITS	200000
4	Soft lithographic fabrication of super hydrophobic surfaces and durability studies	Chemical Engineering	Dr. Nandini Bhandaru	BITS	200000
5	An investigation on Factors influencing Bicycling and Walking in Indian Urban Context: A Case Study of Hyderabad, India	Civil Engineering	Dr. Bandhan Bandhu M	BITS	200000
6	Wavelet based pattern recognition and motor current signature analysis of stator winding faults due to insulation failure in industrial machines	EEE	Dr. Sudha Radhika	BITS	200000
7	Nano-scale power management interface circuits for IoT Node	EEE	Dr. Saroj Mondal	BITS	200000
8	Design and implementation of Hardware Architectures for Media Processing Applications	EEE	Dr. Syed Ershad Ahmed	BITS	200000
9	Studies on the design of high power, low loss power divider and combiner	EEE	Dr. Harish V Dixit	BITS	200000
10	Simulation, Design and Modelling of vertical Heterostructure transition metal dichalcogenides for lab free electrochemical gas sensing applications	EEE	Dr. Sayan Kanungo	BITS	200000
11	Investigation and improving the performance of next generation cellular networks	CSIS	Dr. Sudeepta Mishra	BITS	200000
12	How should I detect and fix code smell? Investigation source code, text analytic and social network based approaches to find structural design problems in software systems	CSIS	Dr. Lov Kumar	BITS	200000
13	Impact of the ex-gratia for farmers suicide on the surviving family member of the deceased farmers in Telangana	Economics and Finance	Dr. Thota Nagaraju	BITS	200000
14	An investigation in to child nutrition in India	Economics and Finance	Dr. Rishi Kumar	BITS	200000
15	Alternative ways of understanding ecological conservation practices to enable justice for all	Humanities and Social Sciences	Dr. Lavanya Suresh	BITS	200000
16	Development of a visco-hyper elastic constitutive model for polyuria using experiments	Mechanical Engineering	Dr. A V S Siva Prasad	BITS	200000
17	Analysis and design modifications to the existing form of laparoscopic forceps	Mechanical Engineering	Dr. Ramachandra Murthy K	BITS	200000
18	Quantum theory of black holes and quasinormal modes	Physics	Dr. Swastik Bhattacharya	BITS	148000
19	Development optimization and characterization of nanostructured carrier systems for effective delivery of anticancer therapeutics	Pharmacy	Dr. Akash Chaurasiya	BITS	200000
20	Optimization and characterization of deformable vesicle Nano carriers for ocular therapeutics	Pharmacy	Dr. Nirmal	BITS	200000

Opera Project

S.No	Project Title	Department	Principal Investigator	Funding Agency	Amount Sanctioned (INR)
1	Shrinkage Properties of Concrete with Alkali - Activated Binder. (OPERA)	Civil Engineering	Dr. Arkamitra Kar,	OPERA	1820000
2	Performance assessment of agrowaste as supplementary cementitious materials (OPERA)	Civil Engineering	Dr. Bahurudeen	OPERA	1820000

Dubai Campus

Details of Government Sanctioned Projects- **COMPLETED PROJECTS**

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
Mechanical Engineering						
1.	Smart Oil Spill	Dr R Udayakumar and a team of students	-	Expo Live Innovation	450000	01.02.2018 1 year

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
				Grant UAE		
2	Extraction of Hydrogen from Waste Water	Dr Shashank Khurana and a team of students	-	Expo Live Innovation Grant UAE	450000	01.02.2018 1 year
Electrical & Electronics Engineering						
3	Smart Dustbin	Dr Abdul Rajak and a team of students	-	Expo Live Innovation Grant UAE	450000	01.02.2018 1 year
4	ZEER Pot in Green Revolution	Dr Nilesh Goel and a team of students	-	Expo Live Innovation Grant UAE	900000	01.02.2019 For 1 year
5	Harnessing and Management of energy through innovative mobility services	Dr R. Gomathi Bhavani and a team of students	-	Expo Live Innovation Grant UAE	900000	01.02.2019 For 1 year
BIOTECHNOLOGY						
6	Unused restaurant food converted into non perishable powder to prevent food waste	Dr Trupti Swarup Gokhale & Dr. Neeru Singh and a team of students	-	Expo Live Innovation Grant UAE	450000	01.02.2018 1 year
Details of Completed Consultancy Projects						
ELECTRICAL & ELECTRONICS ENGINEERING						
1	Study, Analysis and Mitigation of Power Quality Issues Reported at STAR CEMENTS RAK	Dr. Shazia Hassan	Dr. Mary Lourde	Star Cement LLC UAE	300000	4.6.2017 1 year
MECHANICAL ENGINEERING						
2	Development of Mobile Application for Raw Mix and Fuel Cost Optimization	Dr Vishal Naranje	Dr R Karthikeyan Dr V Kalaichelvi Dr.Nandkumar	Star Cement LLC UAE	300000	4.6.2017 1 year
3	Development of Computer Application for Prediction of Cement Strength	Dr Vishal Naranje	Dr R Karthikeyan Dr V Kalaichelvi Dr.Nandkumar	Star Cement LLC UAE	200000	4.6.2017 1 year
4	Comprehensive analysis and customized solutions for energy auditing and energy conservation	Dr.R.Udayakumar	Dr Shashank Khurana	Star Cement LLC UAE	200000	4.6.2017 1 year
BIOTECHNOLOGY						
5	Bioremediation of RedMud using acidogenic fermentation byproducts and by biopiling	Dr. Shrikanth Mutnuri (Goa campus)	Dr. Neeru Sood, Dr. Trupti Gokhale, Dr. B B Gulyani, Dr. Nishant Pandya	ABSTCPL and BITS Pilani	INR 3.66 Lakh	June 2018- May 2020
CHEMICAL ENGINEERING						
6	Development of Photocatalyst embedded Graphene based membranes for Treatment of Dye containing waste water under sunlight light irradiation	Dr NN Ghosh (Goa)	Dr Rajib Ghosh (Dubai)	ABSTCPL and BITS Pilani	INR 479000	June 2018- May 2020
CIVIL ENGINEERING						
7	Condition assessment of Raw Mill foundation - Field and Laboratory investigation – Ras Al Khaima, UAE	Dr. Vivek B	Dr. Sridhar G., Dr. Ram Karthikeyan, Dr. Bahurudeen A.	Star Cement Co. L.L.C.	INR 5,15,000	July 2019 - Sept 2019
8	Nondestructive testing of Coal Mill foundation - Field and Laboratory investigation – Ras Al Khaima, UAE	Dr. Vivek B	Dr. Brij Kishor Pandey, Dr. Bahurudeen A.	Star Cement Co. L.L.C.	INR 4,60,000	June 2020 - Dec 2020

List of Institute Funded projects

S.No	Name of Faculty	Department	Title of Proposal	Budget Amt (lakhs)	Start date	End Date
1	Dr R Karthikeyan Dr Vishal Naranje Dr V. Kalaichelvi, Dr Vilas Gaidhane	Mechanical Engg and Electrical and Electronics Engineering	Design and Development of closed loop control system to improve the process capability of Incremental Sheet Metal Forming	1800000	1.2.2017	31.8.2020
2	Dr Shanthakumar Vincent Dr R Karthikeyan	Mechanical Engg	Bio-Tribo-Corrosion Evaluation of Ti/Zr based Bulk Metallic Glass / Hydroxyapatite Composites for Bio-Implant Applications	1800000	1.2.2017	31.8.2020
3	Dr. S. Ramchandran Dr Trupti Gokhale, Dr Neeru Singh, Dr. Ismail S, Dr. BG. Prakashkumar Mr. C. Babu Mr.Khalil.Ur.Rahman,	Biotechnology and Chemical Engineering	Optimization of Selected High Yield Grass Species for Biomass and Bioenergy Applications using Saline and Recycled Wastewater; Feb 2017 to date	2400000	1.2.2017	31.8.2020

Research Initiation Grant (RIG)

List of Dubai Faculty for RIG						
S.No.	Title of Research Proposal	Department	Name of faculty	Sanctioned Year	End Date	Sanctioned Amount
1	Design and Development of Direct Methanol Fuel Cell with Effective Species Management	Mechanical Engineering	Dr. Naveen Shrivastava	19.6.2018		400000
2	A metabolomics approach to explore the health benefits of Salicornia bigelovii exposed to different degrees of salinity stress	Biotechnology	Dr. Mainak Dutta	10.10.2017	13.11.2019	400000
3	Performance analysis of the port structures incorporating soil structure interaction under earthquake and hydrodynamic force	Civil Engineering	Dr B. Vivek	29.8.2018	20.08.2020	200000
4	Numerical modelling of surcharge preloading with vertical drains	Civil Engineering	Dr Sridhar Gangaputhiran	16.8.2018		200000
5	Design and Analysis of Magnesium based Syntactic Foams for Military Vehicle Applications	Mechanical Engineering	Dr Priyank Upadhyaya	23.03.2017	22.03.2019	200000
6	Development of Cyanofactories for seawater based hydrogen production	Biotechnology	Dr Namita Khanna	13.06.2019	31.07.2019	100000
7	Development of Computer Aided Product Design Tool for Mixtures	Chemical Engineering	Dr.Nishant Pandya	13.10.2016	12.10.2018	400000

ONGOING**Ongoing Sponsored Research projects**

S.No	Project Title	Principal Investigator	Co-Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)	Sanctioned date and Duration
1.	Frustum CAM in Medical Ventilators	Mr. Prem Dakshin (Student, MBA Batch of 2020)	Dr. Shashank Khurana (Assistant Professor, Mechanical Dept.)	BIRAC-BioNEST (Dept. of Biotechnology), India	15,00,000	Jan. 2021 (2 Years)

BRIEF DESCRIPTION OF SOME OF THE PROJECTS SANCTIONED

Pilani Campus

PI: Dr. Abhijeet Digalwar

1. Title: Empirical Investigation and Analysis of Factors for Sustainable Growth of Electric Vehicles Manufacturing in India

Area: Clean Technology and Environment for Better Health

Key words: Electric vehicles, sustainability, manufacturing, India

Abstract: Today, India has been rapidly rising in the transportation sector. As a result, urban traffic congestion, health and air quality worsen in the cities. The transport sector contributed around 27% of CO₂ emission as the dominant vehicle technology is based on fossil fuel. To tackle these challenges, Government of India has developed the NEMMP-2020 with the aspiration of replacement of fossil fuel based vehicles with faster deployment of EVs on Indian roads. The pace of the investments and R&D in this sector is now gaining momentum. Many researchers addressed the issues such as demand incentives, power infrastructure, charging infrastructure and battery technology for EVs. In addition, some studies are focusing on technical and infrastructural factors essential for deployment of EVs successfully in major cities. But, they have ignored the urban and rural population in their studies. Therefore, there is a need to consider the urban and rural population along with various geographical, economical, environmental, social, political and legal factors as well into account for the design, development, validation and to expedite the sustainable growth of EVs in India.

PI: Dr. Kaushar Vaidya

2. Title: UV-Guided study of Blue straggler stars in open clusters and galactic fields

Area: Observational Astronomy

Key words: Stars, Clusters, Stellar Evolution, Blue Straggler Stars

Abstract: Blue straggler stars are enigmatic objects which seem to defy the standard theory of stellar evolution. Whereas in the last two decades, knowledge of their formation mechanism, and their effect on the evolution of their parent clusters, is growing in globular clusters, much less is known about these stars of open clusters and Galactic fields. The UV wavelengths offer a unique advantage in studying these stars because of their large flux in these wavelengths. In this project, we aim to use the UV data of clusters and fields obtained from India's first indigenous space telescope ASTROSAT

PI: Paul Atish Tulshiram

3. Title: Design, Synthesis, Biological Evaluation and Molecular modelling studies of Indolyl Oxoacetamide-Quinazoline based hybrid analogs as potential pancreatic lipase inhibitors for Obesity treatment

Area: Obesity and Drug discovery

Key words: Pancreatic lipase, Molecular modelling, Synthesis

Abstract: Obesity is a multifactorial metabolic disorder that ranks fifth among global deaths. Orlistat, a potent pancreatic lipase (PL) inhibitor is the only approved drug for long term treatment. However, it exhibits severe adverse effects such as liver toxicity and acute pancreatitis. These events clearly highlight the necessity for the discovery of safer and newer anti-obesity drugs. Our research group has identified a unique dimeric carbazole alkaloid conophylline as a potent PL inhibitor. Further investigation has led to discovery of carbazolyl and indolyl oxoacetamide analogues as potent PL inhibitors. In further screening process, natural quinazolinone scaffold exhibited better potential towards PL inhibition. Based on these studies, in the present project we propose to design, synthesis of hybrid analogues based on indolyl oxoacetamide quinazolinone pharmacophore for obesity treatment.

PI: Jayashree Mahesh

4. Title: Designing a Futuristic Learning Framework for Post Millennial Generation Students of Higher Education Institutions in India

Area: Science and Education

Key words: Learning framework, Post Millennial Generation, Higher education in India, mixed methods research

Abstract: There is a huge gap between the outcomes of the higher education in India, and the competencies required. This study proposes to design a research based India specific futuristic framework for learning, to meet the expectations of multiple stakeholders thereby enhancing their value proposition. Through mixed methods, the study will research and suggest measures that Indian educational institutions can take to implement the framework and spawn an ecosystem that can help students achieve self-actualization. The findings can be used

to benchmark both pedagogical and curriculum elements, as well as structuring of higher degree institutes, thereby enhancing their on-campus and off-campus offerings

PI: Rupam Goswami

5. Title: Nanocavity-in-body tunnel field effect transistor architectures for low power sensing applications

Area: Applied Physics; Electronics Engineering; Nanotechnology

Key words: sensor, Tunnel FET, TCAD

Abstract: This project proposes to investigate Tunnel Field Effect Transistors (TFETs) for sensing applications through technology computer aided design (TCAD) simulations. While most of the works have reported on gate dielectric based nanocavity architectures, this work targets to design body embedded nanocavity based design in order to reduce the complexity of fabrication. The objective of the work is to design and model such geometries of TFETs for low power applications after appropriate calibration on the tool. Various non-ideal effects like partial hybridization, steric hindrance and interface traps-states shall be investigated on the proposed architectures

PI: Dr. Giakwad Anil Bhandudas

6. Title: Klotho regulation as a novel therapeutic strategy against acute kidney injury-induced comorbidity: Impact of epigenetic driven and epigenetic independent reactivation of endogenous Klotho expression

Area: Kidney disorders

Key words: Acute kidney injury, Klotho, Hyperglycaemia

Abstract: The emergence of Klotho is seen as a novel tactic to counter developing kidney disorders including AKI. However, we intend to evaluate the different pathways which can possibly upregulate endogenous Klotho providing the obligatory Reno protection under acute kidney injury diabetes co-morbidity.

PI: Dr. Devendra Kumar

7. Title: A Parameter-uniform approximation for singularly perturbed parabolic reaction-diffusion boundary value problems

Thrust Area: Mathematical Analysis

Key words: Singular perturbations, parameter-uniform method, boundary layers, fitted-mesh

Abstract: Singularly perturbed problems are quite challenging to solve and usually involve hard mathematical solution techniques. Also, in most real-life applications it is too complicated to obtain the exact solutions to these problems in terms of composite elementary functions in a simple manner. So, a numerical scheme for the solutions to such problems is required. In the case of singular perturbation i.e., when the highest order derivative is multiplied by a small parameter, known as perturbation parameter there is a small region, known as boundary layer region, where the solution of the problem changes very rapidly and all the classical methods fail to resolve the boundary layer. So, we must need some non-classical methods to obtain a parameter-uniform accuracy. In this work, our aim is to develop efficient parameter-uniform numerical methods based on spline wavelets on an adaptive mesh for the solution of singularly perturbed parabolic reaction-diffusion boundary value problems

PI: Dr. Sandeep Sundriyal

8. Title: Computational design, synthesis and screening of non-hydroxamate lipophilic DXR inhibitors as potential antibacterial/antimalarial/anti-TB agents

Thrust Area: Antimicrobial drug discovery

Key words: Antibacterial, malaria, tuberculosis, computational drug design

Abstract: 1-Deoxy-D-xylulose-5phosphate reductoisomerase (DXR, EC 1.1.1.267) is the second enzyme of non-mevalonate pathway and has been validated for antimicrobial therapy. The known inhibitors of DXR such as Fosmidomycin and its analogues are under investigation as a possible therapy for malaria, TB and other bacterial infections. However, these analogues are very polar due to the presence of a hydroxamic based metal binding group (MBG) and phosphonate group, resulting in short half-life and poor cellular permeability of these molecules. Thus, our objective is to design and synthesize novel DXR inhibitors with a non-hydroxamate MBG and increased lipophilicity

PI: Dr. Sandeep Sundriyal

9. Title: Design & Synthesis of Mycobacterium UDG Inhibitors

Thrust Area: Antimicrobial drug discovery

Key words: Uracil DNA glycosylase (UDG), tuberculosis, synthesis, virtual screening

Abstract: Uracil DNA glycosylase (UDG/UNG) is a highly conserved enzyme present in all organisms and is responsible for DNA repair. Mycobacterium UDG (MtUDG) is proposed to be an important target for the design of novel antimycobacterial chemotherapy. However, currently there are no reported potent inhibitors of MtUDG. Our aim is to design novel MtUDG inhibitors using the structure- and ligand-based drug design techniques such as docking-based virtual screening. The designed molecules would be synthesized and tested in in vitro enzyme inhibition assay

PI: Dr. Rajdeep Chowdhury

10. Title: High altitude-hypoxia mediates thrombosis in soldiers; modulation of autophagy as a strategy to combat high altitude-hypoxia induced thrombosis

Thrust Area: Vascular diseases

Key words: Autophagy, Thrombosis, Hypoxia

Abstract: Low-oxygen environments or hypoxia, associated with high altitude is a major causal factor to predisposition towards thrombosis, especially for soldiers residing for a prolonged period of time at high altitude, ultimately leading to complicated medical conditions. Despite its clinical relevance, current treatment strategies combating this high altitude induced thrombosis are limited. Interestingly, the cellular homeostatic process-autophagy is induced under hypoxia and is also implicated in platelet activation. In this project, we propose that regulating autophagy might hold the key to hypoxia driven platelet activation and thrombosis; thus modulating autophagy might provide us with a window to development of preventive strategy against thrombosis at high altitudes

PI: Dr. Nirankush Dutta

11. Title: Use of Social Media as a Driver for Innovation in Higher Education in India

Thrust Area: Social Media in Education

Key words: Social Media; Education; Innovation

Abstract: Supported by existing theories, this project endeavours to underline the effectiveness of social media at improving student learning by analysing underlying factors that may motivate or inhibit students, faculty members and administrators in institutes of higher education to integrate social media for academic purposes. The empirically validated model resulting from this research should facilitate formulation of policy framework

PI: Dr. S. B. Singh

12. Title: Structural Health Assessment and Rehabilitation Framework based on Cyber Physical System

Thrust Area: Structural Engineering

Key words: Structural Health Monitoring, Cyber Physical System, Wireless Sensors, Finite Element Analysis

Abstract: This project deals with structural health monitoring of structures using dynamic characteristics of structures such as bridges and buildings using data obtained through wireless sensors. Furthermore, the data obtained from wireless sensors will be analyzed using numerical techniques such as Finite Element Analysis along with verification of data obtained from sensors

PI: Dr. S. B. Singh

13. Title: Study of Postbuckling response, failure and strength of functionally graded composite plates with and without cutouts

Thrust Area: Advance Composite Materials

Key words: Buckling, Composites, Failure, Postbuckling, Strength

Abstract: This project deals with experimental and numerical analysis and evaluation of buckling and post-buckling responses and strength of functionally graded composite plates and shells. The experimental test results and progressive failure analysis through nonlinear finite element analysis will be used to verify the accuracy of numerical modelling of failure of thin-walled functionally graded composites. The results obtained

will be used to develop design charts for efficient plated and shells structures as used in Plate girders, domes, and or composite deck slab of bridges

PI: Dr. Gaurav Dwivedi

14. Title: A study of nonlinear polyharmonic boundary value problems with dependence on gradient

Thrust Area: Theory of elliptic partial differential equations

Key words: Polyharmonic equations; gradient nonlinearity;

Abstract: In this project, we plan to establish existence results for polyharmonic equations with nonlinearities depending on the gradient. Since the problems under consideration are nonvariational in nature, we look to apply some nonvariational and approximation techniques to establish our results

PI: Dr. Vaibhav Dixit

15. Title: Sequential Comprehensive and holistic (SeqComHol) drug metabolism predication methodology to reduce drug failures

Thrust Area: Drug discovery and drug metabolism

Key words: Phase I and II drug metabolism, CYP450, SULT, drug discovery

Abstract: Drug metabolism and associated toxicity are major reasons for failures in drug discovery. In this project, we will develop methodologies for the prediction of sequential drug metabolism catalyzed by Phase I and II enzymes. Drug metabolism data collection, curation, descriptor calculations, development of machine learning models will be performed using standard computational chemistry and cheminformatics analysis. SOM and classification models will be developed and tested. Finally, models will be validated with additional experimental data. These models may help in reducing drug discovery failures in the early phases

PI: Dr. Hari Om Bansal

16. Title: Modelling of Drivers and Barriers of electric vehicle penetration in emerging economy: A study of Indian Market

Thrust Area: Urban Transformation

Key words: EV, Enablers, barriers, mixed method approach

Abstract: Despite of the numerous advantages, EV market has not grown up to its expectations. There are certain barriers those are restricting the penetration of these vehicles. Additionally, there are certain factors which may drive the market share of these vehicles in the Indian automobile industry. This study aims at identifying and prioritising these barriers & drivers using mixed method approach and will also assess the cause & effect relationship among them. It will also aid the resource allocation to mitigate the crucial barriers and exploit the important drivers to achieve the optimum results

PI: Dr. R. K. Gupta

17. Title: Investigation on Langmuir-Blodgett films of pristine and functionalized single walled carbon nanotubes and application

Thrust Area: Condensed Matter Physics

Key words: Ultrathin films, Morphology, Surface plasmon resonance, quartz crystal microbalance, sensing

Abstract: In the present project proposal, we aim to undertake studies on Langmuir monolayer of p-SWCNTs and f-SWCNTs. The Langmuir-Blodgett (LB) films will be deposited onto solid substrates. The morphology, ordering and structure will be studied. The LB films of p/f-SWCNTs will be employed for sensing some heavy metals, biological analytes and pesticides. The role of surface morphology, ordering and structure of the LB films of p/f-SWCNTs on the sensing performance will be highlighted from the analysis of data

Dr. Syamantak Majumder

18. Title: Studying the efficacy of ADAM Inhibitors in treating diabetic nephropathy

Thrust Area: Human Chronic Diseases; Kidney Diseases

Key words: Diabetes, Endothelial Cells, Nephropathy, Podocyte Cells

Abstract: Diabetes is the most common cause of kidney failure worldwide and new treatments are urgently needed. More than 72 million people in India are currently affected by diabetes and many of whom are highly prone to develop kidney disease called as “diabetic nephropathy (DN)”. In the present study, we aim to explore the role of ADAMs in glomerular EC driven podocyte injury leading to DN pathogenesis and further evaluating their potential as therapeutic targets

Dr. Syamantak Majumder

19. Title: Epigenetics of Endothelial Dysfunction during cardiovascular disease

Thrust Area: Human Chronic Diseases; Cardiovascular Diseases

Key words: Cardiovascular, Endothelial Cells, Epigenetics

Abstract: Atherosclerosis is the leading cause of cardiovascular associated complication in India and worldwide. Indian population are more than 10 times higher in the prevalence of coronary artery diseases (CAD) than that seen 40 years ago. Globally, ischemic heart disease and stroke caused due to atherosclerosis are the world's biggest killer, accounting for a combined 15 million deaths in 2015 alone and remained to be the leading causes of death globally for last 15 years. In the present proposal, we will explore the role of epigenetic processes in atherosclerosis development and progression

PI: Dr. Niladri Sarkar

20. Title: Investigation of Elastic and Inelastic Dephasing in Carbon Nanotube FET

Thrust Area: Nano-Scale Device Physics

Key words: CNT FET, Dephasing Mechanisms, NEGF , Nano-scale Device Modeling

Abstract: Miniaturization of the devices has led to the advancements in the field of Computers and Electronic technologies. It has resulted in the possibilities of incorporating lots of very small Field Effect Transistors(FETs) into the core of modern processors. With advanced research and technologies in the field of growth and the fabrication of Nano-Scale devices, it has become a possibility that in the near future the processors will be governed by very clean Nano-Scale MOSFETs where the transport properties will depend on various quantum effects. It has been shown experimentally that devices can be fabricated by replacing Si with CNT, DNA and Organic semiconductors based materials. The aim of this project is to investigate the Elastic and Inelastic Dephasing in Carbon Nanotube FETs. The CNT FETs have a wrap round gate over the device channel which provide an excellent electrostatic control over the device output characteristics. The transport theory of these CNT based devices is entirely different from the conventional drift-diffusion based theories. Hence, it become important to study and develop the understanding of a completely new device physics which is based on the concept of low dimensional transport

PI: Dr. Bhanuvaradhan Reddy Kuncharam

21. Title: Assessment of mixed-matrix membrane system for CO₂ separation for upgradation of Biogas to Bio-compressed Natural Gas (Bio-CNG)

Thrust Area: Separation Processes, Material Science and Engineering

Key words: Bio-CNG; CO₂ capture; Biogas upgradation; Membrane Separation; Mixed-Matrix membranes

Abstract: Biogas can be used for direct heating, natural gas substitute, transportation fuel, or can be reformed to produce hydrogen for use in Fuel cells. However, CO₂ and H₂S in biogas can cause corrosion in pipes of transportation of biogas or if biogas is directly used as fuel in engines. The upgradation, i.e. removal of CO and H₂S is required for biogas to be converted to Bio-CNG. This removal can be performed using traditional separation techniques such as absorption, adsorption or pressure swing adsorption. But these techniques are energy intensive, not portable and cannot be used under harsh biogas conditions. Membrane systems offer an alternative to these conventional systems using a membrane material capable to separate CO and H₂S. However, the challenge in membrane systems is to obtain high permeability and high selectivity for deployment in commercial settings. The proposed topic will test various membranes such as Mixed-Matrix Membranes for CO₂ separation and upgrade raw biogas to Bio-CNG

PI: Dr. Rahul Singhal

22. Title: GaN Gratings-on-Diaphragm based Optical Pressure Sensing in Harsh Environments

Thrust Area: Integrated Optics

Key words: GaN waveguides, GaN Gratings, Pressure Sensor, Optical Sensor

Abstract: A precise characterization of pressure loads imposed on any structure following high explosive detonation is critical to produce sustainable structures. During explosion, pressure magnitudes are high in range of kPa to MPa and commercially available piezo-electric pressure transducers are employed for their measurements. Piezo-electric sensors are susceptible to measurement errors due to environment including temperature, radiation intensity or accelerated particles, etc. The proposed project will focus on precise measurements of mechanical pressure loading developed due to an explosion in the air. Gallium Nitride (GaN) gratings-on-diaphragm based optical pressure sensors can be an optimal solution due to GaN inherent properties to function in harsh environments. The scope of this work involves design optimization of GaN optical pressure sensor using simulation

PI: Dr. Rajesh Kumar

23. Title: Numerical methods and Error Analysis for Solving coagulation and non-linear fragmentation equations

Thrust Area: Numerical Analysis

Key words: Coagulation, Non-linear Fragmentation, Finite Volume, Consistency, Convergence

Abstract: In this project, consistency and convergence analysis will be studied for solving coagulation with linear and non-linear fragmentation problems under some growth conditions on the kernel. Finally, a theoretical convergence of numerically approximated solutions towards a weak solution of continuous problem using weak compactness argument will be discussed

PI: Dr. Srinivas Appari

24. Title: Prevention of Hazardous Field-Firing of Bagasse and Its Sustainable Utilization as a Raw Material in an Innovative Industrial Process

Thrust Area: Action-Oriented Research

Key words: Fast pyrolysis, In-situ catalytic reforming, Blended cement, Sugarcane bagasse ash

Abstract: Lignocellulosic biomass, bagasse can be successfully converted to useful products such as aromatics, liquid fuels, and bio-char by subjecting it to catalytic-assisted fast pyrolysis. Moreover, the obtained bagasse ash can be used for manufacturing low carbon cement in Indian cement plants. Applications of bagasse in such a synergistic industrial process in India as proposed in the study, can effectively reduce the open burning and air pollution, make the waste collection profitable, and create additional revenue while being entirely sustainable.

PI: Dr. Ravi Kant Mittal

25. Title: Design and development of fixed and floating solar PV installation for water management infrastructures

Thrust Area: Solar energy and water resources

Key words: Canal top solar system, Floating Solar PV, evaporation losses, Solar Energy

Abstract: Installation of solar PV on water bodies saves precious land and likely to improve efficiency of PV panels. Installation of solar PV on water bodies has additional advantages as it reduces the water evaporation losses. In the proposed research work, the water evaporation losses and performance evaluation of installation of solar PV panels on water bodies shall be studied using the field setup installed at BITS Pilani. The proposed study will also assess environmental benefits

Dr. Pradipta Chattopadhyay

26. Title: Understanding emulsion kinetics of surfactants

Thrust Area: Colloids and Interface Science

Key words: surfactants, emulsions, emulsion kinetics

Abstract: In this work, various industrial test results and performance results of textile lubricants and surfactants will be analyzed to ascertain a correlation between them. Also a thumb rule will be established to estimate washability of lubricants from chemical nature of surfactants and the kinetics of emulsion formation will be determined.

PI: Dr. Anshuman Dalvi

27. Title: Li⁺ NASICON-Polymer hybrid composites for solid state supercapacitor applications

Thrust Area: Physical Sciences, Condensed Matter Physics and Materials Science

Key words: All Solid State Supercapacitors, polymer composites, NASICONs

Abstract: Super capacitors store energy within the double electrochemical layer at the electrode/electrolyte interface. In the traditional supercapacitors an ion permeable film soaked with liquid electrolyte is placed between high surface area electrodes. Replacing liquid electrolytes with a solid electrolyte may improve their reliability for high temperature, low dimensional and environment friendly and corrosion free applications. Proposal aims at development and characterization of all-solid-state supercapacitors using NASICON-polymer hybrid membranes as separators and high surface area electrodes. Applying various hybrid electrolytes prepared from Li⁺ ion NASICONs and polymer hosts, Electrochemical double layer capacitors (EDLCs), pseudo capacitors and Hybrid supercapacitors will be fabricated and characterized. Work thus would involve synthesis of Li⁺ ion based NASICON-polymer hybrid composite films and fundamental characterization (ii) development of button-type solid state supercapacitors (EDLC, Pseudo and Hybrid) using novel NASICON polymer hybrid films as electrolytes and their characterization. And finally (iii) To understand the mechanism of charge transfer at the electrode-electrolyte interface and role of solid electrolyte in performance of supercapacitors

PI: Dr. Arun Kumar Giri

28. Title: Linking Energy Poverty with Human Development: A Case Study of Two Districts of Rajasthan

Thrust Area: Growth, Macro, Trade and Economic Policy

Key words: Energy Poverty, Human Development, Income poverty, inclusive growth

Abstract: There is often a two-way relationship between the lack of access to adequate and affordable energy services and poverty. The relationship is a vicious cycle in which people with lack of access to energy are often trapped in a re-enforcing cycle of deprivation to income and living conditions in the society. In the above context, the study intends to examine the relationship between energy poverty, income poverty and human development using primary data from two districts of Rajasthan state and intend to suggest policies and schemes specifically aimed at accelerating energy accessibility, income growth to reduce poverty and improve human development

PI: Dr. Navneet Gupta

29. Title: Design and Analysis of Metamaterial Based Antenna for Wearable Application

Thrust Area: RF-Microwave and Antenna

Key words: Metamaterial, Antenna, wearable

Abstract: Wearable antennas have enjoyed growing interest over the past few years, along with the development of the next-generation communication standards (4G, 5G-600MHz to 6 GHz). These are antennas that operate in close proximity to the human body because they are embedded in clothing, shoes, glasses, bracelets, watches and other short-distance accessories in the human environment. Extremely many are the applications of this type of antennas; they include wearable laptops, smart mobile phones, personal digital assistants, personal security systems, BANs, local ISM networks like WLAN, Wi-Fi, WiMAX, Bluetooth; sports watches that monitor heart rate, blood pressure, distance traveled by the user, etc., medical devices that support information and control the current health status, etc. Devices with similar antennas have made the life of the users comfortable, because they are easy carry, do not interfere with movement and are mobile in nature, making them desirable components in the Internet of Things (IoT), M2M, Sensor Networks and other 5G applications. The design of wearable antennas should guarantee them moderate to high gain, wider bandwidth, high efficiency and low absorption of the signal in the human body. All these parameters have to be optimized for the wearable antennas, while providing minimal dimensions. This is an extremely challenging task and may be solved mainly by using of metamaterials. Bending and Specific Absorption Power (SAR) effects are two important moments when designing wearable antennas, but there are very few published studies where these effects are successfully analyzed for metamaterial antennas

PI: Dr. Meghana Tare

30. Title: Understanding the genetic interactions of parkin and α -synuclein affecting pathogenesis of Parkinson's disease

Thrust Area: Neurodegeneration in animal models

Key words: Drosophila melanogaster, neurodegeneration, genetic and molecular interactions.

Abstract: Parkinson's Disease (PD) is the second leading neurodegenerative disorder worldwide, leading to loss of dopaminergic neurons, causing locomotory disorders, bradykinesia, and gradual memory loss. Most

forms of PD are recognized as sporadic, with handful of familial cases. Cause of PD remains to be known, and available treatment is mostly symptomatic. PD is manifested due to accumulation of Lewy Bodies, which are formed due to oligomerization of (an otherwise important) α -Synuclein (Syn). Another kind of PD is also recognized which does not involve formation of Lewy Bodies, involves down regulation of an E3 ubiquitin ligase Parkin. Both α -Syn accumulation and Parkin downregulation can be familial or sporadic. Interestingly, in severe cases, both; α -Syn accumulation and Parkin downregulation have been observed, however, independently their relationship with one another remains elusive. Despite research on several aspects of onset and progression of PD, due to less understood molecular interactions, a potent cure is missing. In this proposal, we aim to identify missing links between interactions of α -Syn and Parkin, those result in onset and progression of PD. We hypothesize that they interact with each other in-vivo, for the onset and/or, progression of the PD. We also aim to identify the newer targets of α -Syn and Parkin in this proposal. We propose to use well established model of *Drosophila melanogaster* for our studies, for it shares a high degree of conservation with vertebrates and is relatively inexpensive, in terms of cost and time both, yet provides an in-vivo model platform to study the genetic and molecular interactions. Our studies will help dissect out different pathway members involved in mediating death of dopaminergic neurons in PD, which can be extrapolated to develop new therapeutic targets.

Our studies are basic biology studies, but they will have broader implications. We propose to characterize the genetic and molecular interactions of α -Syn and Parkin, (objective-1) which will help us discern the etiology and progression of the disease. Identifying these interactions may serve to characterize the early markers of the disease in future. We also propose to identify the targets of α -Syn and Parkin, (objective 2), may open new avenues for characterizing new and previously not known molecular targets, which can be used for developing new therapeutic models. Our objectives are thus, independent, to each other, and aid different purposes. Verification of results obtained from our studies in human patient samples can actually lead to development of Personalized Medicine (An emerging field of developing therapeutics). Non-hazardous transgenic fly lines and other reagents generated from this project will be available for sharing into broader model organism community

PI: Dr. Priya Sande

Thrust Area: Education

Key words: Gender equity and gender equality

Abstract: The proposal is to make initiatives that will boost gender equity and equality. This will include one or more of the following: creative projects, workshops, and events all with the aim to: Support women in leadership, raising awareness of sexual harassment and develop anti-sexual harassment initiatives Support women in science and research Assist creation of policies which are in line with the above

PI: Dr. Aakash Chand Rai

32. Title: Assessment of Indoor plants for improving air quality in buildings

Thrust Area: Air pollution

Key words: Air pollution; Plants; Buildings

Abstract: This research is motivated by the urgent need to protect Indian public from the adverse health effects of PM_{2.5} (airborne particles less than 2.5 microns in diameter) exposure inside buildings by using indoor plants for PM_{2.5} removal. The aim is to quantify the PM_{2.5} removal potential of indoor plants under real-world building conditions. This investigation will make recommendations about the type and number of plants that should be deployed indoors for effectively removing PM_{2.5}, and protecting people from its adverse health effects. Thus, the investigation will help towards improving the health conditions of millions of people in the country

Dr. Hitesh Datt Mathur

33. Title: Management of Distributed energy resources in smart cities: Challenges and Advanced control strategies

Thrust Area: Electrical Engineering

Key words: Distributed Energy Resources, Smart Cities, Energy Storage, Vehicle to Grid

Abstract: This project aims to develop an intelligent energy management system to provide balanced and quality power supply to consumers connected in Community Microgrid (CMG). The focus of project will be on design and development of comprehensive model of CMG at pilot scale in laboratory with solar, wind, battery energy storage and diesel generators. It is also proposed to Integrate Electric Vehicles (EVs) with CMG and study the dynamic behaviour as well as implement advanced intelligent control strategies to maintain optimal balance in generation and load where most of the sources are intermittent in nature. The intelligence may be achieved through fuzzy logic and/or various machine learning algorithms along with recent forecasting techniques. Some bio inspired optimization techniques may also be used to optimally tune various control parameters

PI: Dr. Hitesh Datt Mathur

34. Title: Development of Improved Design and Control Techniques for Unified Power Quality Conditioner with Distributed Generation (UPQC-DG)

Thrust Area: Electrical Engineering

Key words: Distributed Generation, Unified Power Quality Conditioner, Active power filters

Abstract: This project focuses to devise optimum design method for UPQC-DG for sizing series and shunt inverters and passive components with Real-time simulation and power-hardware development of UPQC alone and integrated with DG. Project will also aim to develop improved control strategies for UPQC-DG to effectively utilize series and shunt inverters of UPQC-DG, and to provide reactive power support to grid. Experimental validation of developed controller using laboratory based hardware setup of PV integrated UPQC-DG is also planned along with estimation and measurement of power losses in converters of UPQC-DG

PI: Dr. Geetilaxmi Mohapatra

35. Title: Measuring the Vulnerability of Agricultural Households to Climate Change in Arid and Semi-Arid Regions of Rajasthan - A Capacity to Adapt Perspective

Thrust Area: Agriculture and Rural Development

Key words: Climate change, vulnerability, adaptability, arid and semi-arid, Rajasthan, agricultural households

Abstract: Climate change is a serious concern and efforts are being undertaken to promote adaptation as a tool to minimize its adverse effects. For identifying the socio-economic factors affecting the choice of the rural households to analyze the adaptation strategy adopted in arid and semi-arid regions of Rajasthan, field survey will be conducted. Logistic Regression will be applied to analyze the decision of households related to whether to adapt or not to adapt. Estimations will be undertaken in a two-step Heckman framework to control the selection bias. Lastly Household Adaptive Capacity Index (HACI) will be calculated to suggest vulnerability to climate change

PI: Dr. Kamlesh Tiwari

36. Title: Development of real-time multi objective route recommender system using AI

Thrust Area: Software

Key words: Artificial Intelligence, Machine Learning, Deep Learning

Abstract: Given an origin and destination point finding a route on a map is one of the important problems that need to be solved for any in-vehicle navigation. The task is not straightforward when we bring optimality and real-timeliness into consideration. For example, only considering the distance between the two stations is not sufficient to calculate the time required to reach the destination starting from the source accurately. The system should also consider factors like the current average vehicle speed and the current traffic density at different segments of the roads etc. Additionally, minimizing the travel time may not be the only objective of the route selection algorithm. The user may prefer a safer and comfortable route than the route which takes lesser time. Objective of the current project is to develop a routing engine for turn-by-turn route calculation using MapmyIndia's exclusive vector maps with features such as 1) Fast 2) Real-time 3) AI-Based 4) Dynamic 5) Objective/Constraint satisfying

PI: Dr. Tanu Shukla

37. Title: An Empirical Study on Accountability and Learning Outcomes in Public School Systems in Rajasthan

Thrust Area: Science and Education

Key words: Accountability, learning outcomes, quality education

Abstract: As the latest trends reflect on the decline of inadequate improvements in learning outcomes of children, the Indian the education system is facing the massive challenge in achieving the goals of focusing and channelizing teaching resources in achieving equitable and quality learning among children. The background of this study is contextualized to study in-depth and deal with the accountability of teachers as one of the systemic inputs that hinder or contribute in the process of imparting quality education by translating effective and justifiable learning outcomes to maximize student learning

PI: Dr. Prabhat Nath Jha

38. Title: Development of sensors for blast and blight diseases and stomatal activity measurement in rice

Thrust Area: Microbial Biotechnology

Key words: Xanthomonas oryzae, bacterial blight, rice, biosensor

Abstract: By an estimate, up to 30% of the worldwide rice yield is lost every year due to diseases. Major bacterial rice diseases include bacterial blight (*Xanthomonas oryzae* pv. *oryzae*), bacterial leaf streak (*Xanthomonas oryzae* pv. *oryzicola*), sheath brown rot (*Pseudomonas fuscovaginae*) and foot rot (*Erwinia chrysanthemum*). The current proposal aims to design an opto-electric biosensor device for early detection of *Xanthomonas oryzae*. The project component at BITS Pilani aims to identify signature molecule (proteins, pigment, or metabolites) which will be used for development of receptor and biosensor device. The later part of the project will be executed at Shivnadar university

PI: Dr. Smita Raghuvanshi

39. Title: Process Development for Bio-Mitigation of Flue Gases (CO₂, SO_x and NO_x) using Chemolithotrophs and Production of value-added Products

Thrust Area: Engineering Sciences & Sub Area: Chemical Engineering

Key words: Flue gases, chemo lithotrophs, bio-reactor, integrated process development

Abstract: Flue gases are typically generated by the burning of fossil fuels. The project aims at economical, efficient, and effective biological alternative for mitigation and utilization of CO₂, SO_x, and NO_x using chemolithotrophs. The integration of developed bio-mitigation system with industrial liquid effluent containing inorganic chemicals (Fe[II], S₂O₃²⁻, heavy metal ions in reduced form, NO₃⁻, etc.) which act as a liquid media for chemotrophic growth can further reduce the cost of bio-mitigation system and can simultaneously address the problem of water pollution. Hence, the integration of CO₂, SO_x, NO_x mitigation, waste water treatment and downstream processing for the product recovery envisage the idea of bio-refinery

PI: Dr. Ashis Kumar Das

40. Title: Antisense, Sense and Epigenetics in Severe Malaria

Thrust Area: Molecular Parasitology

Key words: NATs, malaria, Plasmodium falciparum, Plasmodium vivax, complicated malaria., epigenetics

Abstract: Malaria, caused by protozoan parasites, Plasmodium falciparum and P.vivax., are still the cause of significant mortality and morbidity in India. Complicated malaria by these parasites cause changes in the transcriptomic expression pattern and one possible mechanism for such change, is through Natural Antisense Transcripts (NATs). Our previous study indicated differential NATs expression based on disease outcome. However, how NATs are regulated and which downstream mechanisms are modulated in malaria is not explored.

Novelty: This study would be the first to investigate whether the state of DNA methylation in human malaria parasites is linked with NATs and transcriptomic changes. Further, by investigating possible binding partners for NATs, we will demonstrate underlying mechanisms of NAT mediated regulation of gene expression.

PI: Dr. K. K. Gupta

41. Title: Structural Health Assessment and Rehabilitation Framework based on Cyber Physical System

Thrust Area: Cyber Physical System

Key words: structural health assessment (SHA), Cyber Physical System (CPS), FEM, Vibration

Abstract: Today there is an increasing demand for structural health assessment (SHA) and detect the potential damage in the structures and / or structural element during service life of structures so that preventive measures could be taken to avoid their sudden failure. Hence there is wide spread interest to monitor a structure and detect damage at the earliest possible within the civil, mechanical, and aerospace engineering communities. The SHA process involves the observation of a system over time using periodically sampled dynamic response measurements from an array of sensors, the extraction of damage-sensitive features from these measurements and statistical analysis of these features to determine the current state of system health. For long term SHA, the output of this process is periodically updated information regarding the ability of the structure to perform its intended function in light of the inevitable aging and degradation resulting from operational environments. After extreme events, such as earthquakes etc., SHA is used for rapid condition screening and aims to provide, in near real time, reliable information regarding the integrity of the structure.

PI: Dr. K. K. Gupta

41. Title: Development of a cyber-physical system based smart water grid for community usage

Thrust Area: Cyber Physical System

Key words: Water Smart Grid (WSG), Cyber Physical System (CPS), Water Quality Index, Water Distribution Network

Abstract: A smart water grid, conceptually, involves elements related to sources of water (e.g. lakes, wells, rivers, etc.), water collection systems (e.g. reservoirs, tanks), water treatment systems and water pumping and distribution systems. Data obtained from primary sources of information indicating pressures, temperatures, flow rates, vibrations and water level fluctuations, as captured at selected points in different physical structures (components) of a smart water grid, can be transmitted in real-time and might be subsequently handled through an intelligent control and data analytics process involved in Cyber Physical Systems.

PI: Dr. Arnab Hazra

42. Title: Development of 1-D Nanomaterials based Selective Sensor System for Non-Invasive Detection of Diabetes Mellitus and Asthma by Breath Analysis Technique

Thrust Area: Nano-biotechnology

Key words: Breath analyzer, 1-D nanomaterials, Selective sensor, Low Cost

Abstract: Current project has four different aspects i.e. (i) synthesis and characterizations of one dimensional (1-D) metal oxide nanostructures (e.g. nanotube, nanorod) and fabrication of sandwich structured gas or vapor sensor devices for lower ppb detection of breath markers; (ii) Selection of breath markers and their detection range for Diabetes Mellitus and Asthma affected individuals; (iii) selective detection of specific breath marker in the exposure of interfering vapors and gases using resistive and capacitive mode analysis of sensors; and (iv) correlation of sensor data with standard laboratory test results for both healthy and disease affected individuals

PI: Dr. Arnab Hazra

42. Title: Carbon nanomaterials for chemical sensing applications

Thrust Area: Innovation-Driven Sub-domain: Nano, Biotechnology and Applications

Key words: Chemical sensors, graphene, field effect transistors

Abstract: Current research proposal concerns fabrication and testing of carbon nanomaterials based sensors devices for the detection of chemical compounds in gaseous and liquid phase for medical diagnosis, food quality monitoring and agricultural applications in collaboration with Tel Aviv University, Israel. Targeted carbon nanomaterials like graphene, reduced graphene oxide, charcoal and carbon nanotubes will be used to fabricate planer (resistive) and field effect transistor type sensor structure. Other techniques like defect formation, functionalization, hybridization, surface modifications and device structure modulation technique will be used to enhance the performance of carbon nanomaterial based chemical sensors

PI: Dr. Inamur Rahaman Laskar

43. Title: Sensitive explosive detection in vapor phase with cyclometalated iridium (III), Platinum (II) and Conjugated Hyperbranched polymer based aggregation induced emission active nanopropbes

Thrust Area: Detonics/Explosive sensing

Key words: Aggregation Induced Emission; 2. Explosive sensing; 3. Luminescence; 4. Iridium(III)

Abstract: Most of the explosive materials commonly used for evil purposes are small organic molecules. The vapour pressure of these explosive materials is observed to be very low. Such property of explosive materials poses a challenge in onsite and real time detection of explosive materials. Sensitive detection of the nitro based explosives will be carried out through strategic design and syntheses of Ir(III) and Pt(II) and conjugated hyperbranched polymer based 'Aggregation Induced Emission (AIE)' active materials and the work will be extended to fabrication of prototype development of sensoric platform

PI: Dr. Sudeshna Mukherjee

44. Title: Analyzing the crosstalk between autophagy, cytoskeletal and mitochondrial dynamicity regulating epithelial to mesenchymal transition (EMT) in human glioblastoma cells

Thrust Area: Cancer Biology

Key words: Brain Tumor, Epithelial to Mesenchymal transition(EMT), Autophagy, Mitochondrial dynamics, Cytoskeletal dynamics

Abstract: Autophagy and EMT are two major biological processes that play a crucial role in cancer. In this proposal we plan to explore the role of cytoskeleton elements and mitochondria in mediating the functional crosstalk between autophagy and EMT in glioblastoma multiforme (GBM). GBM is characterized by lethal aggressiveness and patients with GBM are in urgent need for new therapeutic avenues to improve quality of life. Autophagy is emerging as a critical factor in aggressive behaviors of cancer cells; however, the relationship between autophagy and EMT in GBM is poorly understood. Hence in this proposal, the major open ended questions that we intend to address are: What is the crosstalk between structural proteins and autophagy in response to EMT activation in GBM?; How mitochondrial dynamics affect cellular architecture during EMT and metastatic spreading in GBM? Our results shall provide critical cues on how GBM cells alter their metabolic and structural reprogramming for metastatic spread and progression, which shall be valuable for future therapeutic strategies

PI: Dr. Shibashis Chowdhury

45. Title: Repurposing of CNS accumulating drugs as autophagy modulators for potential treatment against glioblastoma: as in-silico, in-vitro and in-vivo study

Thrust Area: Cancer, Non-Communicable Disease

Key words: Glioblastoma, Drug-repurposing, autophagy

Abstract: Glioblastoma multiforme (GBM) is the most aggressive brain tumor. As per existing studies, a majority of conventionally used anti-cancer drugs are ineffective against GBM, due to their inability to cross the blood-brain barrier and/or internal resistance. In this study, computational based initial screening of drugs shall be performed to identify possible targets from GBM patient datasets; selection of de-regulated networks obtained from transcriptomic data of drug-treated cells; screening of drugs based on enhanced lipophilicity coupled with autophagy modulating properties. Finally, with a set of selected drugs we shall perform in vitro efficacy analysis, in-vivo pharmacokinetics and bio-distribution study to decipher actual brain concentration of drugs and finally to evaluate their therapeutic potential against orthotopic GBM rodent model

PI: Dr. Vinay Chamola

46. Title: Resource dimensioning and management of smart and sustainable 5G small cells for rural broadband

Thrust Area: Communication engineering, networks

Key words: Cellular networks, Resource management, Solar energy, Network optimization

Abstract: This project is a dedicated effort towards introspecting and solving key issues that would facilitate enabling rural broadband. Specifically, this project would address resource dimensioning and management of rural solar powered 5G small cell base station networks. Some key questions which would be addressed through the research are a. Cost optimal sizing of PV panels and battery for solar powered base stations b. Energy management for cost-optimal and sustainable operations of 5G small cell network and c. Spectral resource management and pricing models for rural markets

PI: Dr. Anil Jindal

47. Title: Rod-shaped polymeric nanoparticles for targeted delivery of artemisinin-derivatives to plasmodium-infected erythrocytes for improved intravenous therapy of cerebral malaria

Thrust Area: Nano drug delivery systems

Key words: Rod-shaped, Malaria, Nanoparticles, Artemisinin derivatives

Abstract: Malaria, a prevalent parasitic disease caused due to the Plasmodium parasite is responsible for around 1 to 3 million deaths annually around the globe. Currently, a number of conventional drugs available in market suffer from drug resistance developed by the malarial parasites. Drugs like artemisinin and its derivatives show poor bioavailability and pharmacokinetic properties. Hence newer approaches like nanotechnology should be considered while developing new formulations. In malaria, the differentiated pathophysiology of the RBCs unlike the normal ones can be advantageous in targeting them. Spherical nanoparticles have been pretty much exploited in malarial treatment unlike non-spherical nanoparticles. Non-spherical nanoparticles have shown promising results in cancer targeting. Hence the objective of the research is to formulate non-spherical nanoparticles and to study their cellular uptake, pharmacokinetics and efficacy in malarial treatment.

Dr. Kiran Vankayala

1)Title of the project: Dual-functional and band-gap tunable visible-active semiconductors as hosts for single atom catalysts: Coproduction of solar fuels and value-added chemicals with high selectivity

Thrust Area: Nanomaterials for renewable energy

Key words: Nanomaterials, Semiconductors, Solar fuels, Photocatalysis, Renewable energy, Photoelectrochemistry,

Abstract: The proposed research plan is designed with an objective of developing highly active single atom supported visible-active semiconductors as dual-functional catalysts for the production of H₂ coupled with high value chemicals from the selective oxidation of (hydroxymethyl)-furfural, an important biomass-derived platform chemical as feedstock. The proposal describes ways to achieve ameliorated performance by band-gap engineering via rational designing of the precursors and by inclusion of single atoms onto semiconducting host surface. This innovative 2-fold strategy would enhance the versatility of photocatalysis, enables us to move forward from less economic water splitting process to more economic processes like utilization of biomass to high value chemicals, a way to achieve wealth from abundant waste. Successful demonstration of proposed research activities would enable us to develop systems for the direct transformation of biomass to high-value chemicals coupled with H₂ production under sunlight.

Dr. Anil Kumar Pundir

1)Title of the Project: Numerical Approximation of Optimal Control Problems Using Virtual Element Method.

Thrust Area: Optimal Control Theory

Key words: Optimal Control, Virtual Element Method, Partial Differential Equations, Calculus of Variation, Optimality Conditions.

Abstract: In view of various applications of optimal control problems in industry and medical sector, the aim of this project is to develop efficient and robust numerical schemes which would provide best approximation of optimal control problems governed by specific PDEs. Many existing numerical schemes such as: Finite Difference Methods, Finite Element Methods, Mixed Finite Element Methods and Finite Volume Methods have been used to approximate optimal control problems numerically. However, each scheme has its own limitation while dealing with complicated geometry or looking for best approximation (higher order convergence). The recently introduced numerical techniques named as Virtual Element Methods (VEMs) have certain computational advantages in terms of computational cost, mesh refinement, higher order convergence and geometry of the domain in which the problem is defined. We shall extend the VEMs analysis (available in the literature) to approximate optimal control problems governed linear/semilinear elliptic/parabolic/hyperbolic problems where control may appear as a distributed control or a boundary control and to design and analyze suitable new virtual element schemes for the approximation of control problems which are more application oriented.

Dr. Halan Prakash

1)Title of the project: Water Filtration, Advanced-oxidation and Capacitive-deionisation Treatments for removal of Emerging Contaminants in Water (Water-FACTS)” under WTI Call 2019 (Technology Development Stream), DST, India

Thrust Area: Water and Environment

Key words: Water Filtration, oxidation, Capacitive-deionisation, Emerging Contaminants

Abstract: The project aims to remove the ionic strength, organic and bacterial pollutants in water for potable reuse by filtration, oxidation and deionisation techniques. The project is coordinated by BITS Pilani K K Birla Goa Campus with partners from Eureka Forbes, The Way Membranes and IITG.

Dr. Amrita Chatterjee

1)Title of the project: A polydiacetylene-based fluorescent sensor for the detection of arsenic species and uranyl ion in water by conventional and nuclear analytical methods.

Thrust Area: Water and Waste Management, Sensor

Key words: PCDA, arsenic, UO₂²⁺, fluorimetry, NAA, SSNTD

Abstract: Water pollution, which is one of the major environmental concerns, is basically the introduction of contaminants into the natural waters that cause adverse change of environment and has severe effect on

human health. Water pollution by arsenic and radioactive metal toxins (e.g., UO₂²⁺) is a major global problem which requires immediate evaluation and revision of water resource policy at all levels. Several techniques that are used for analytes quantization such as voltammetric or chromatographic methods. However, these techniques can hardly be used for in situ analysis and low-cost screening procedures. Fluorescent probes are powerful tools for analytical sensing and optical imaging, which allow direct visualization of analytes at the molecular level and offer useful insights into complex structures and processes. Polydiacetylenes (PDAs), a family of conjugated polymers, have very unique electrical and optical properties. In this proposal we propose to develop PDA based liposomes for the selective and sensitive detection of arsenic and uranyl ions. Efforts will be made to utilize radiotracers of As and U for method standardization at BARC and also for low level detection of As and U by Nuclear methods like NAA and SSNTD, respectively.

Dr. Rajiv Kumar Chaturvedi

1) Title of the project: Studying the Climate Vulnerability in Peanut Cropping System in Junagadh district of Gujarat.

Thrust Area: Climate Change, Agriculture, Vulnerability

Key Words: Climate Change, Temperature, Rainfall, Vulnerability

Abstract: This scope of this project is designed to support the project on "Studying the Climate Vulnerability in Peanut Cropping System in Gujarat". The project area is the Mendarda and Vanthali blocks in Junagadh district of Gujarat. In this project we are carrying out historical climate analysis and future climate projections for Junagadh district at high resolution. High resolution climate variables to be provided at the district level for Junagadh, Gujarat and for the specific blocks of Mendarda and Vanthali blocks in Junagadh, Gujarat. A statistical model to be developed based on the historical relationship between Climate variables and historical peanut yield.

2) Project title: Assessing the impact of climate change on mountain communities in the Spiti Basin, Himalaya.

Thrust Area: Climate Change, Mountain Communities

Key Words: Climate Change, Cryosphere, Communities, water availability, hydrological models

Abstract: It is a collaborative study between BITS and ISRO. The main objective of this project is: (1) to develop a s/w tool for estimation of mass balance using improved AAR approach developed by Divecha Centre of Climate Change-Indian institute of Science, Bangalore, (2) to assess changes in cryosphere under different climate scenarios using climate and glaciological models (3) determine future changes in water availability using hydrological model and (4) provide potential solution to local communities to build climate resilience.

3) Project title: Climate Change Impact Assessment in Thiruvananthapuram Division Kerala

Thrust Area: Climate Change, Forest Ecosystems

Key Words: Climate Change, Forests, Decision support system, scenario analysis

Abstract: Project aims to prepare 20-year climate simulation scenarios (for the years 2020, 2030 and 2040) for Thiruvananthapuram forest division, with the aim to develop a Decision Support System (DSS) for the forest division. To develop climate model outputs for important forest types in Thiruvananthapuram forest division. To carry out integration of climate data in the Decision Support System. To review and verify the appropriate approach of the scenario analysis outputs and its integration into the Decision Support System.

4) Project title: Undertaking study for mapping forest areas vulnerable to climate change in India based on high resolution computer model based projections.

Thrust Area: Climate Change, Forest Ecosystems

Key Words: Climate Change, Forest cover, Forest type, India, hotspots, forest policy

Abstract: The major limitations in future climate projection from GCMs is their spatial resolution mismatch, therefore this project aims to downscale climate change projections at a high spatial resolution of 10 Km. To analyse climate change over forest areas in India with relevant tests of significance with respective hypothesis and most suitable test statistics. To identify climate change hotspots within India should be located spatially with the help of analytical data available from statistical climate based inferences. Finally, the periodic forest cover maps (i.e. notified forest area) to be overlapped with the spatially distributed layer of climate change hotspots to ensure building of a strong future plan to contest against the ill effect of climate change. The goal is to identify climate change hotspots in Indian forests to help policy makers prioritise forest conservation efforts.

5)Project title: Implications of Ujjwala scheme for forest conservation efforts in the state of Jharkhand

Thrust Area: Public Policy Analysis, Forest Ecosystems

Key Words: PMUY, Public Policy analysis, Forest conservation, Fuelwood

Abstract: This is a public policy analysis study that aims to compare the impact of Ujjwala Yojana on forest conservation in Jharkhand state before and after the launch of the Yojana, more specifically in the following terms: a. Evolution of LPG connections in the state in the last two decades (2001-2020), including response of people to this scheme in terms of connections and refills, b. Impact of Ujjwala Yojana on Forest Ecology in the state (as accessed by NDVI), c. Impact of Ujjwala Yojana on Firewood usage and collection in the State, d. Impact of Ujjwala Yojana on forest fires in the State, e. Impact of Ujjwala Yojana on habitat improvement of wildlife and wildlife corridors (Elephant) in the State

Dr. A. Amalin Prince

1)Title of the project: MPSoC Based Automated Digital Signal Processing System for Tokamak Reflectometry

Thrust Area: FMCW Radar Signal Processing, VLSI and Embedded System

Keywords: FMCW Radar, Multiprocessor System on-Chip, Field Programmable Gate Array, Signal Processing, Reflectometry

Abstract: Frequency Modulated Continuous Wave (FMCW) Radar system is used in autonomous vehicles, test instruments, altimetry, speed guns, avalanche detection, diagnostics etc. Reflectometry is a microwave (FMCW radar) diagnostic technique, which is capable of measuring the complete electron density profile of fusion plasma with minimal access requirements. Advanced signal processing technique is required for more accurate density profile measurement. Automated system can be designed using a Multiprocessor System on Chip (MPSoC) platform. Xilinx MPSoC has processor cores (ARM), programmable logic (FPGA fabric) and GPU in a single chip. Hardware software co-design technique would be used for the implementation. The proposed automated system would have analog driver for microwave source, data acquisition system and signal processing unit. This automated signal processing instrument would be a remotely configurable with an integrated Graphical User Interface GUI).

Dr. Meenal Kowshik

1)Title of the project: Biocompatible nano-vehicle mediated delivery of siRNA into stem cells for targeting pluripotency markers as a potential therapeutic approach in regenerative medicine.

Thrust Area: Nanobiotechnology

Key words: Hydroxyapatite; siRNA, stem cells, nanovehicle.

Abstract: Ability of pluripotent stem cells to differentiate into various germ layers has a huge potential in regenerative medicine. Targeting the pluripotency and self-renewal status is one of the approaches to induce differentiation in these cells. Designing techniques for safe and effective delivery of siRNA is a challenge. This work is aimed at developing surface functionalized hydroxyapatite nanoparticles based storable and easily redispersible nano-vehicle for delivery of siRNAs against the pluripotency markers such as Oct4, Sox2, Nanog etc. in mouse embryonic stem cells. The nano-vehicle is proposed as a biocompatible and effective transfection agent. Optimization studies will be carried out to establish long term effect of nano-vehicle mediated siRNA delivery by monitoring expression pattern of stem cell differentiation markers.

Dr. Basabdatta Bhattacharya

1)Title of the project: Low power Deep Spiking Neural Network for Forest Surveillance

Thrust Area: Low Power Machine Vision

Key words: Spiking Neural Networks, SpiNNaker, Deep Neural Networks, Biologically Inspired Neural Networks

Abstract: Deep Spiking Neural Networks are the third generation of neural networks. Being computationally expensive on normal computer hardware, these are more easily computed on neuromorphic hardware. We are using the interface of two neuromorphic hardware, a dynamic vision sensor and the SpiNNaker computer, to implement a biologically inspired circuit of vision for dynamic scene detection in a forest environment. The circuit has 3 main parts, of which, around 50% of the first part is implemented, and will be presented in two conferences. The project progress is affected by upto a time equivalent of 6 months due to Covid.

Dr. Anirban Roy

1) Title of the project: Studies on hybrid Pressure Retarded Osmosis (PRO)- Reverse Osmosis (RO) system for energy generation utilizing hypersaline RO reject stream

Thrust Area: Renewable / Alternate Energy

Key words: Pressure Retarded Osmosis; Salinity Gradient Power; Osmotic Energy

Abstract: The project is on handling the hypersaline reverse osmosis reject stream which has salinity almost twice of the feed seawater. This high salinity stream has tremendous osmotic energy which can be harvested through technologies like Pressure Retarded Osmosis. However, PRO based osmotic energy plants are still under conception since the membranes suffer from low power densities. This project is based on design and development of a laboratory scale PRO unit and detailed performance analysis and energy generation potential using state of art hollow fiber membranes.

2) Title of the project: Surface Water Purification For Handwash And Other Application For Rural India

Thrust Area: Water Treatment and Sanitation

Key words: Water purification; Sanitation; Handwash

Abstract: The project is on developing and deploy a field prototype to treat surface water and provide clean water for handwash purposes in rural India.

Dr Sunil Bhand and Dr. Utpal Roy

Title of the Project: Recovery of resources from worn-out tires for enabling circular economy

Thrust area: Waste treatment and resource recovery

Key Words: Bioremediation, microbial degradation, biosensors

Abstract: As a result of the widespread use of rubber products, huge amounts of waste rubber material are stockpiled globally. In the United States alone, about 2 to 3 billion used tyres are stored in landfills. Due to the huge production and their durability, the rubber tyres are among the largest and most problematic sources of organic waste. The most common methods to cope with this problem are to burn the tyres in cement kilns and power plants. However, these methods lead to further environmental pollution. One way of overcoming the environmental problems is to make bio-based technological intervention provided by undertaking microbial transformation of rubber into useful products or by products. Certain advantages of biotechnological processes compared to chemical and physical ones may be envisaged as biotechnology-based approach does not produce any harmful or toxic chemicals and is normally not energy intensive. Microbial deterioration of rubber products has been promising and many studies have been conducted on the degradation of both pure rubber elastomers and vulcanized rubber products.

Hyderabad Campus

Dr. Archana Srivastava

1. Title of the project: Socio-Economic Impacts of Cyclones and the Coping Strategies of the Local Communities in Odisha, India with a Special Focus on Women

2. Funding Agency: Shastri Institutional Collaborative Research Grant (SICRG) 2020-21 by Shastri Indo-Canadian Institute

3. Sanctioned Amount: 10 Lakh

4. Sanctioned date: 10th November 2020

5. Duration: 2 Years

6. Thrust Area of the project: Environment

7. Keywords: Cyclones, Coping Strategies, Women, Local communities

Abstract: The proposed study is an investigation of the socio-economic impacts of cyclones on coastal communities along the East Coast of India. The main objective is to identify and document the types of coping strategies that are being adapted by different coastal groups to combat cyclones. Another key objective is to examine the role of women in developing and implementing various coping strategies to reduce the impacts of cyclones. The proposed study will be based upon compilation and critical analysis of a broad spectrum of information from primary and secondary sources. A community survey is proposed to be conducted in Odisha, located along the East Coast of India.

Dr. Gujji Murali Mohan Reddy

1. Title of the project: Adaptive and efficient method of fundamental solutions for the numerical reconstruction of boundary data in two-phase inverse Stefan problems
2. Funding Agency: SERB-DST
3. Sanctioned Amount: 10,45,000
4. Sanctioned date: 06/01/2020
5. Duration: 2 years
6. Thrust Area of the project: Numerical Analysis (Inverse Problems)
7. Keywords 3/4: method of fundamental solutions, inverse Stefan problem, two-phase, efficient algorithms

Abstract : This project aims at developing efficient MFS for the inverse Stefan problems. In particular, it will focus on the following mathematical problem: "given a tolerance, how to place the source points appropriately with minimal computational effort so that the approximation error lies within the tolerance for the two-phase inverse Stefan problem". This problem is open and requires rigorous mathematical theory to develop error estimates those can be used as raw ingredients for developing adaptive and efficient algorithms.

Dr. Sourav Nandi

1. Title of the project: Design of Phase Locked Loop Dielectric Resonator Oscillators for Frequency Synthesizers
2. Funding Agency: Defence Electronics Research Laboratory (DLRL) – DRDO
3. Sanctioned Amount: ₹9,93,324
4. Sanctioned date: 27/01/2020
5. Duration: 12 months
6. Thrust Area of the project: Microwave Engineering
7. Keywords: Phase-Locked Loop (PLL), Dielectric Resonator Oscillator (DRO), Frequency Synthesizer

Abstract: This project involves the design and simulation of a Phase Locked Loop Dielectric Resonator Oscillator (PLDRO) as per the specifications provided by the organization. The design is intended to operate in microwave frequency range of X-band. The incorporation of phase locked loop offers the advantage of controlling the variation of frequency with respect to temperature, aging and time. The final design is expected to deliver specified output power with comparatively lower phase noise for high performance.

Dr. Ramesh Babu A

1. Title: Developmental Studies on Environmental Conditioning of QCE Composite Materials
2. Funding Agency: Advanced Systems Laboratory (DRDO)
3. Sanctioned Amount: 24,89,999 (24.9 lakhs)
4. Sanctioned date: 27-11-2020
5. Duration: Initially given for 9 months, but it will be extended later.
6. Thrust Area of the project: Characterization of coatings
7. Keywords 3/4: Polymer composite, Thermal shock test, Solar radiation, Rain erosion.

Abstract: To condition the composite samples with and without coating at extreme environmental conditions, such as humidity, temperature, solar radiation, fungal growth, sand, dust, and salt fog. The physical, mechanical, electrical, and thermal properties of the reference and conditioned samples will be tested and compared. Thermal shock test involving -55 OC and 100 OC, Salt fog test, transient temperature test involving -67 OC, and 145 OC, humidity test at 30 OC & 85 % RH and Solar radiation test of intensity 1120 W/m², Rain erosion test of intensity 2.5 cm /hr will be conducted on both coated and uncoated composite samples

Dr. Runa Kumari

1. Title of the project: " Design of miniaturised 5 GHz High Pass Filter (HPF) and study of interference due to multichip Packaging in TR module/Plank
2. Funding Agency: Contract for Acquisition of Research Services (CARS) from Defence Electronics Research Laboratory (DLRL) DRDO, Hyderabad

3.Sanctioned Amount: Rs 9.97395 Lakhs

4. Sanctioned date: 27th Jan 2020

5.Duration: 1 year

6. Thrust Area of the project. Microwave engineering

7. Keywords 3/4.: High Pass Filter (HPF), TR module/plank, Integrated Passive Devices (IPD) technology, LTCC process

Abstract: The objective of this project is to design a 5 GHz miniaturized IPD based HPF and to analyse the effect of coupling and interference and its associated performance degradation of a T/R module via EM simulation. The benefits of using IPD technology for the miniaturization of HPF and compared to Hybrid micro strip line BPF implementation in terms of size reduction (if it is a multilayer ceramics), performance.

Dr. Ruchi Jain Dey

1. Title: Development of rapid point-of-care diagnostic kit for infections associated with combat war wounds and sepsis in armed forces

2.Funding agency: LSRB, DRDO

3.Sanctioned Amount: 39.82 lakhs

4.Sanction Date: April 20, 2020

5.Duration: 3 yrs (2020-2023)

6.Thrust Area of the project: Point of care diagnosis for wound Infections

7.Key words: Diagnosis, POC, Wound Infections

Abstract: This project aims to develop Point of care rapid diagnostic platform for simultaneous detection of ESKAPE group of pathogens in wound infections using on chip rapid isothermal extraction and amplification technology or lateral flow method.

Dr. Tanmay Chatterjee

1. Title of the project: Synthesis and Development of Pharmaceuticals (Code: CXL-001)

2. Funding Agency : Chanceux Labs LLP, Hyderabad

3. Sanctioned Amount : 10.07 lakhs

4. Sanctioned date : 09/12/2020

5. Duration : 18 months (with a provision for further extension based on the progress)

6. Thrust Area of the project: Synthesis and Development of Pharmaceuticals

7. Keywords : Synthesis, Pharmaceuticals, Contrast agent, Anti-hypertensive

Abstract: The project involves the comprehensive proof of concept development for the synthesis of pharmaceuticals (CXL-001) including the scale up process wherever applicable and characterization studies.

Dr. Kurra Suresh

1. Title of the project: Theoretical and Simulation Based Approach to Determine the Forming Limit Diagrams of beta-Ti alloys at Elevated Temperatures

2.Funding Agency: DRDO-ARDB

3.Sanctioned Amount: 26.506 Lakhs (BITS Share: 15.506)

4. Sanctioned date: 19 June 2020

5.Duration: 3 Years

6. Thrust Area of the project. Manufacturing

7. Keywords 3/4. Beta titanium alloys, formability, material characterization, high temperature

Abstract: Beta titanium alloys are mainly used for air bottles in missiles. The formability of this material at room temperature is very poor. The current project is focused on understanding the material deformation behaviour at elevated temperature. Mathematical models will be developed to know the deformation behaviour at different temperatures and strain rates. Further, the best temperature range is identified for forming the beta titanium

alloys without fracture. Theoretical models and simulations will be performed to understand the forming behaviour of the material.

Dr. Prasant Kumar Pattnaik

1. Title of the Project: Automated IoT based Microfluidic Electrochemiluminescence ECL Bio sensing platform for various biomarker detection
2. Funding Agency: Science and Engineering Research Board (SERB), DST Govt. of India
3. Sanctioned Amount: Rs 5142307 (Rs Fifty One Lakh Forty Two Thousand Three Hundred and Seven Only)
4. Sanctioned Date: 24th February 2020
5. Duration: 36 months (Three Years)
6. Thrust Area of the Project: Microfluidics, Bio sensing
7. Keywords: Microfluidics, Electrochemiluminescence (ECL), Biosensor, Bioelectrode, IoT

Abstract: In these work, an attempt to develop a low cost, portable Electrochemiluminescence (ECL) based bio sensing platform that generate, control and diagnosed disease biomarkers using a mobile phone inbuilt camera as a luminescence detector. For external voltage power supply, the simple circuitry will be used to create a portable and point-of-care detection device. For analysis and detection of the ECL emission, the photograph of the luminescence will be captured using a mobile phone camera. The device will be used to monitor various kinds of biomarkers with IoT based mobile application

Dr. Anil N

1. Title of the project: Development and application of a mesh free adjoint approach for aerodynamic shape optimization.
2. Funding agency: Aeronautics Research & Development Board, DRDO.
3. Sanctioned amount: Rs. 17.81934 Lakhs.
4. Sanctioned date: 8th September 2020.
5. Duration: 2 years.
6. Thrust area of the project: Computational aerodynamics.
7. Keywords: Aerodynamic shape optimization, discrete adjoints, least squares kinetic meshfree method, compressible fluid flows.

Abstract: The proposed research will focus on the development of a meshfree adjoint approach for accurate computation of shape sensitivities in inviscid compressible fluid flows and its application in aerodynamic shape optimisation.

Dr. Shreya Biswas

1. Title of the project: Socio-economic determinants of investments portfolio of households in India
2. Funding Agency: Dvara Research, India
3. Sanctioned Amount: 2,70,000
4. Sanctioned date: 29 June, 2020
5. Duration: 9 months
6. Thrust Area of the project: Household Finance
7. Keywords 3/4. - Household, India, Portfolio, Financial assets

Abstract: Using nationally representative data from the second wave of Indian Human Development Survey-2005 this study examines the determinants of household portfolios of low income households in India. Further, the analysis separately considers the factors that are important for rural and urban poor in India. The study is important from a policy perspective as it intends to shed light whether financial products should be designed specifically for low income households to increase their financial asset holding.

Dr. Pratyusha Chattopadhyay

1. Title of the project: True relative of Suslin's normality theorem for elementary groups and transection groups
2. Funding Agency: SERB-DST (Mathematical Research Impact Centric Support)
3. Sanctioned Amount: 6,60,000
4. Sanctioned date: 11.02.2020
5. Duration: 3 years
6. Thrust Area of the project: Algebra
7. Keywords 3/4:

Abstract: Study of Classical Groups and its properties are of central importance in Classical Algebraic K-Theory. Under this project the possibility of establishing a version of normality theorem called "True relative of Suslin's normality theorem" for some of the Classical Groups will be explored. Also, the possibility of establishing analogous theorems for the Transection Groups will be investigated.

Dr. Paresh Saxena

1. Title of the project: MUT-DROCO: Multipath Networking Test-bed for Drone Communications
2. Funding Agency: SERB
3. Sanctioned Amount: INR 1660600
4. Sanctioned date: 3rd Jan 2020
5. Duration: 2 years
6. Thrust Area of the project: Wireless Networks
7. Keywords 3/4: 6G, UAV/Drone communications, Multipath networking

Abstract: In this project, we consider the use case of the crisis response and disaster management using Drones/UAVs when often the fixed network is not available. In such cases, the efficiency of transmission can be increased many folds using multiple networks in parallel. We focus on the integration of non-terrestrial systems including satellites, UAVs, HAPS, etc with 6G and future networks. This project explores the state-of-the-art multipath networking protocols, specifically multipath TCP (MPTCP) and multipath Quick UDP Internet Connections (QUIC) protocols. This project will deliver a drone-based testbed for the comprehensive analysis of future transport layer protocols.

Dr. Zakaria

1. Title of the project: Role of Environmental Entro Dysfunction in explaining heightened calorie intake of some population cohorts in India: Data analysis
2. Funding Agency: University of Southern Australia
3. Sanctioned Amount: 5,334 AUD
4. Sanctioned date: February, 2020
5. Duration: 4 months
6. Thrust Area of the project: Public Health
7. Keywords 3/4. - EED, stunting, calorie intake, India

Abstract: The project intends to examine the role of environmental factors in determining the calorie intake debate across Indian states using child stunting data from NFHS rounds. Empirically the study will assess the variance in stunting that can be attributed to Environmental EntroDysfunction (EED) after controlling for neighbourhood and socio-economic factors. This proxy to EED will be added to the calorie consumption framework.

Dr. Prof Sridhar Raju , Co - PI - Dr. Chandu Parimi

1. Title of the project - Mitigation strategy to counter top-down cracking due to non-uniform contact stresses in Flexible Pavements
2. Funding Agency - National Highways Authority of India
3. Sanctioned Amount - Rs. 26.52 Lakhs

4. Sanctioned date - 22/06/2020
5. Duration - 3 Yrs
6. Thrust Area of the project - Transportation Engineering
7. Keywords 3/4 - Top-Down Cracking, non-uniform stresses, tyre-pavement interaction

Abstract: The main objective of the present work is to analytically find the effect of non-uniform contact stresses for varying surface layers under different loading conditions, tyre pressures, and bituminous mixture temperatures. This will result in a new polymer modified binder for mitigation of Top-Down Cracking. Pavement design charts as an addendum to IRC:37-2012 for varying truck loads and tyre pressures will be developed in this study.

Dr. Akash Chaurasiya

1. Title of the project- Novel formulation for oral bioavailability enhancement of anticancer drug
2. Funding Agency - Slayback Pharma LL
3. Sanctioned Amount - Rs. 2100000
4. Sanctioned date - 03-Jan2020
5. Duration – 2 Years
6. Thrust Area of the project - Nanomedicine based approaches anticancer drug deliver
7. Keywords 3/4 - Leukemia, Nanoemulsion, SMEDDS, Drug Delivery, Ibrutinib, USFD

Abstract: Ibrutinib (IBR) is an orally administered, irreversible, and potent inhibitor of Bruton's tyrosine kinase, and it is recognized by the FDA as a breakthrough therapy and orphan drug designation for the treatment of several malignant tumors, including chronic lymphocytic leukemia and chronic graft-versus-host disease. However, low oral bioavailability of Ibrutinib ($\approx 3\%$) poses serious concern for its clinical application. The objective of present work is to develop novel formulation for oral bioavailability enhancement of Ibrutinib.

Dr. Akash Chaurasiya

1. Title of the project- Development & optimization of stable antileukemic drug loaded long circulating liposomes
2. Funding Agency - Parenteral Drug Association, India Chapter
3. Sanctioned Amount - Rs. 3000000/-
4. Sanctioned date - 25-June 2020
5. Duration – 3years
6. Thrust Area of the project - Liposomes based approaches for stabilization and delivery of antileukemic drug
7. Keywords 3/4 - Leukemia, Anticancer, Liposomes, PEGylation

Abstract: The conventional chemotherapy of leukemia causes severe side effects which are mainly caused by the lack of specificity & stability issues of the antileukemic drugs. In the present proposal, it is hypothesized to develop, formulate & characterize Azacitidine liposomes injection for the treatment of Leukemic disorders. Surface modified (PEGylated) liposomes are hypothesized to maintain Azacitidine concentration for longer duration in systemic circulation and deliver the drug directly to the site of action. Developed Liposomal formulation will be stabilised using scientifically designed lyophilization technique which could be easily scalable at commercial level. Considering the limitation associated with currently available therapy, proposed therapeutic design will possibly provide an alternate treatment regimen for leukemia patient with improved efficacy and safety.

Dr. Debashree Bandyopadhyay

1. Title of the project – Efficient prediction strategy of covid 19 based on pandemic data and immunoinformatics, integrated on artificial intelligence (AI) platform"
2. Funding Agency – DST-Matrix
3. Sanctioned Amount – 5,50,000/-
4. Sanctioned date - 8th July 2020
5. Duration – 1 year

6. Thrust Area of the project -Computational Biology (Application of Artificial Intelligence for early detection of covid 19)

7. Keywords 3/4 – i. artificial intelligence ii. covid 19 early detection iii. blood profile

Abstract: An artificial intelligence platform is under development based on clinical features, so far obtained from published data on H1N1 influenza virus, COVID-19 mild, COVID-19 severe, SARS and healthy controls. Certain features were clearly differing among different diseases. Efficient prediction strategy of Covid-19 is need of the time, when more than 2.0 million confirmed cases are reported from India only. The most common technique to detect the virus is RT-PCR. Rapid diagnostic tests (RDT) are also used, based on antigen level detection or antibody level detection expressed due to COVID-19 virus. All these above methods have their own limitations. However, rapid point-of-care device for early and efficient detection is an urgent need of the day that could complement the existing methods. Integration of all available clinical features is guiding to develop a more efficient prediction strategy.

Dr. Debashree Bandyopadhyay

1. Title of the project –Development of database for reactive oxygen species (ROS) towards understanding mechanism control and therapeutics against mitochondrial dysfunction

2.Funding Agency - CSIR

3.Sanctioned Amount – 9280000/-

4. Sanctioned date 17th July 2020

5.Duration – 3years

6. Thrust Area of the project - Computational Biology

7. Keywords 3/4 – i. reactive oxygen species ii. mitochondrial dysfunction iii. database development

Abstract: im of this project is to generate a public domain secondary database that will store and retrieve information related to ROS production and scavenging within mitochondria. Related enzyme actions and small molecule actions will be curated and stored to understand the mechanism of ROS in mitochondrial dysfunctions. Diseases related to mitochondrial dysfunctions will be identified in details, along with protein names, sequences, mutations, clinical information and drugs used to prevent those diseases. Based upon understanding the mechanism, potential improvement in the drugs to be proposed.

Dr. Nirmal J

1. Title of the project- Topical Nano micelles eye drop for delivering antifungal drug to treat corneal infection

2.Funding Agency - Parenteral Drug Association

3.Sanctioned Amount – 2000000

4. Sanctioned date -25-June-2020

5.Duration – 3 Years

6. Thrust Area of the project - Nanomedicine based drug delivery to cornea (Ocular Drug Delivery)

7. Keywords 3/4 - Nano micelles, Fungal keratitis, Ocular pharmacokinetics, Ocular Safety & Efficacy

Abstract: The current standard of care (intravitreal injection) for treating diabetic retinopathy is associated with various adverse effects. Hence, there is an unmet medical need of newer therapeutic agents to target alternative pathways and a delivery platform for delivering these agents to retina in a sustained manner to reduce intravitreal injection frequency. The current proposal involves the development of biodegradable light-responsive injectable sustained in-situ gelling depot system for delivering a mineralocorticoid antagonist to retina for diabetic retinopathy treatment.

Dr. Naga Mohan K

Title: Molecular Genetic Analysis of Schizophrenia patients

Funding Agency: DST-Cognitive Science Research Initiative

Sanctioned Amount: ₹ 60,42,360

Sanction Date: 06-02-2020

Duration: Three years

Thrust Area: Neurological Disorders (Human Diseases)

Keywords: Schizophrenia, Copy Number Variants, SNPs

Abstract: The project involves molecular-genetic analyses of 300 controls and 300 patients using the Infinium Psychiatric Array to test for the presence of CNVs and pathogenic SNPs identified by the Psychiatric Genetic Consortium. A few of the CNVs identified as significantly associated with patients in this cohort will be validated by i-MLPA (improved multiplex ligation probe amplification) technology developed by us. A few of the disease-associated SNPs will be also validated by ARMS (amplification refractory mutation system) or quantitative real-time PCRs using TaqMan® probes. These results will form a foundation for large-scale screening to identify new genes that confer susceptibility to schizophrenia and possibly other neuropsychiatric disorders.

Title: Stem Cell Models to study the interplay between DNMTs and HDACs in Schizophrenia

Funding Agency: Science and Engineering Research Board

Sanctioned Amount: ₹ 55,57,760

Sanction Date: 31-12-2020

Duration: Three years

Thrust Area: Neurological Disorders (Human Diseases)

Keywords: DNA methyltransferases, Histone deacetylases, Schizophrenia, Mouse Embryonic Stem Cell (ESC) Models

Abstract: By developing transgenic mouse ESC lines that overexpresses DNMT1, DNMT3a and DNMT3b, we will study the molecular basis of abnormal neurogenesis by transcriptome sequencing and reduced representational bisulfite sequencing. The data will be compared with the publicly available transcriptome and methylome data on post-mortem brain samples from SZ patients to identify candidate genes affected due to dysregulation of DNMTs. We will also test whether downregulation of HDAC1 or overexpression of HDAC2 ameliorates the molecular or phenotypic abnormalities in the mutant neurons. This results in a better understanding of the processes underlying neurological disorders due to dysregulated DNA methylation machinery and therapeutic potential of HDAC1 inhibition or HDAC2 expression.

Title: Clinical evaluation of a cost-effective and rapid MDR-TB diagnostic kit and development of a point of care device for large-scale screening

Funding Agency: Department of Health Research

Sanctioned Amount: The project is approved with an estimated BITS share of ~ ₹ 60,00,000

Sanctioned Date: Email of approval received on July 10, 2020

Duration: Three years

Thrust Area: Tuberculosis (Human Diseases)

Keywords: Tuberculosis, Multiple drug resistance, Point Of Care device

Abstract: The emergence of MDR-TB is a serious challenge for our country's 'Eradicate TB programme' and undoubtedly impacts the country's public health and economy. The present molecular methods for detecting MDR-TB need sophisticated equipment and technically skilled personnel. We recently developed a simple-to-use method for direct detection of MDR-TB mutations within 2 hrs. Initial data suggests that our assay is highly specific and more efficient in detection MDR TB mutations than LPA. Here, we propose to further validate our method on a larger sample size and develop a POC for automated detection of MDR TB for large-scale & cost-effective screening.

Title: A pilot study for evaluation of 15 Copy Number Variants (CNVs) among schizophrenia patients from India

Funding Agency: Indian Council of Medical Research

Sanctioned Amount: The project is approved with an estimated amount of ~ ₹ 30,00,000

Sanctioned Date: Approval email received on 03-09-2020

Duration: Three Years

Thrust Area: Neurological Disorders (Human Diseases)

Keywords: Schizophrenia, Copy Number Variants, i-MLPA, Clinical evaluation

Abstract: Schizophrenia is a complex disorder with multiple etiological factors. A majority of the case-control and family studies focusing on genetic factors revealed many disease-associated CNVs. However, there are no CNV studies from India, except in case only one CNV and lack of CNV studies is a drawback to our understanding whether the CNVs stay significantly associated with patients in different ethnic groups. Here, we propose to study 15 CNVs with a higher replication potential by employing i-MLPA on DNAs from 300 patients

and 300 controls. This study lays a foundation for large-scale screening of the disease-associated CNVs to identify individuals at risk.

Title: Neurobiology: DBT BUILDER - BITS Pilani (Hyderabad Campus) Interdisciplinary Life Science Programme for Advanced Research and Education.

Funding Agency: Department of Biotechnology

Sanctioned Amount: The project was approved with an estimated amount of ₹ 3,00,00,000

Sanctioned Date: 24-12-2020

Duration: Five years

Thrust Area: Neurological Disorders (Human Diseases)

Keywords: Master's programme, Cutting-edge research, Neuroscience, Neurological disorders

Abstract: WHO statistics indicate that one in four people are affected with mental disorders, collectively making them a major public health problem, burdening the world economy. The project aims at strengthening neuroscience research by upgrading the existing laboratories with high-end equipment with an emphasis on modeling different neurological disorders. In addition, the project intends to develop well-trained post-graduate and Ph.D. students to conduct modern neuroscience/neurobiology research using recently developed/ evolving genomics technologies. As a wider outreach, the proposed neuroscience center will also provide hands on training on the methodological advances through workshops to widen the available pool of trained manpower in these areas.

9. RESEARCH RELATED SEMINAR/ WORKSHOP CONDUCTED DURING THE YEAR 2019

Pilani Campus

1. BITS Pilani was been selected as one of the Champion institutes in the in the Technology Vertical - **Pharmaceuticals and Bio-Technology** for the Global Summit of NRI Researchers called Vaishvik Bhartiya Vaigyanik (Vaibhav) Summit during 14th to 22nd Oct 2020.
2. A Virtual Symposium on "RF and Microwave Propagation" RF and Microwave propagation organized on 30 Jan 2021 by EEE Department.
3. A virtual symposium on "5G and Beyond Communications: Key Technologies and Role of AI" in the area of 5G Key Technologies was organized on 20 March 2021 EEE Department
4. An International virtual workshop on "Energy Management in Smart Cities – EMSC 2021" was organized on 26 March 2021 EEE Department supported by SPARC scheme of Min of Education.
5. A workshop on BITS-DRDO Collaborative Interactions was jointly organized by the department of Civil Engineering and Mechanical Engineering on March 20, 2021/
6. PRISM awareness workshop and bright idea competition was organized by BITS Pilani jointly with DSIR N Delhi and IIT Guwahati in the domain area of Innovation and Entrepreneurship on 17th and 24th Jan 2021

K.K. Birla Goa Campus

1. National Virtual Conference on Current Trends and Challenges in Plant Biochemistry and Biotechnology (CTCPBB) was organized by Department of Biological Sciences during Nov. 20 & 21, 2020
2. An online I-Brain MiniSymposium in cognitive neuroscience, sponsored by I-Brain Erasmus project funded by EU was organized on Dec 12, 2020 with more than 80 International participants.
3. The 40th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2020) was organized by the department of Computer Science and Information System during October 14-18 2020.
4. A conference on Changing Dynamics of International Order & Indian Foreign Policy Choices, Challenges and Options was organized by the department of Humanities and Socioal Sciences on October 31, 2020.
5. A seminar on Modelling Neutron Star-Black Hole Binaries: Future Pulsar Surveys and Gravitational Wave detectors by Prof. Debatri Chattopadhyay (Swinburne University) was organized by the department of Physics on 12th Jan 2021.
6. A seminar entitled A Wanderer's Voyage in Molecular Science: View at Small Length and Time Scales by Prof. Biman Bagchi, IISC was organized by the Department of Chemistry on Feb 06, 2021.
7. A seminar on Catchment Detachment: Our Global Water Quality Challenges by Prof. Sarah Cook, University of Nottingham, UK was organize by the department of Chemistry on Feb. 27 2021.
8. A seminar on Current Trends in Cyber-Physical Systems (CPS) was organized on October 10 & 11 2020 by the Department of Computer Science and Info. Systems in collaboration with France.
9. A seminar on Living Glass: Active Matter at High Densities by Prof. Chandan Dasupta (IISc & ICTS Bangalore) was organized by the Department of Physics on 24th February 2021.
10. A seminar on "Lorentzian Geometry of Quantum Entanglement" was organized by the department of Physics on Nov. 01, 2020.
11. A Webinar on "fifth-generation (5G) and its applications delivered by Dr. Parag Aggrawal, 5G Architect, Wipro Limited, Bengaluru was organized by Department of EEE&I on Nov. 28, 2020.

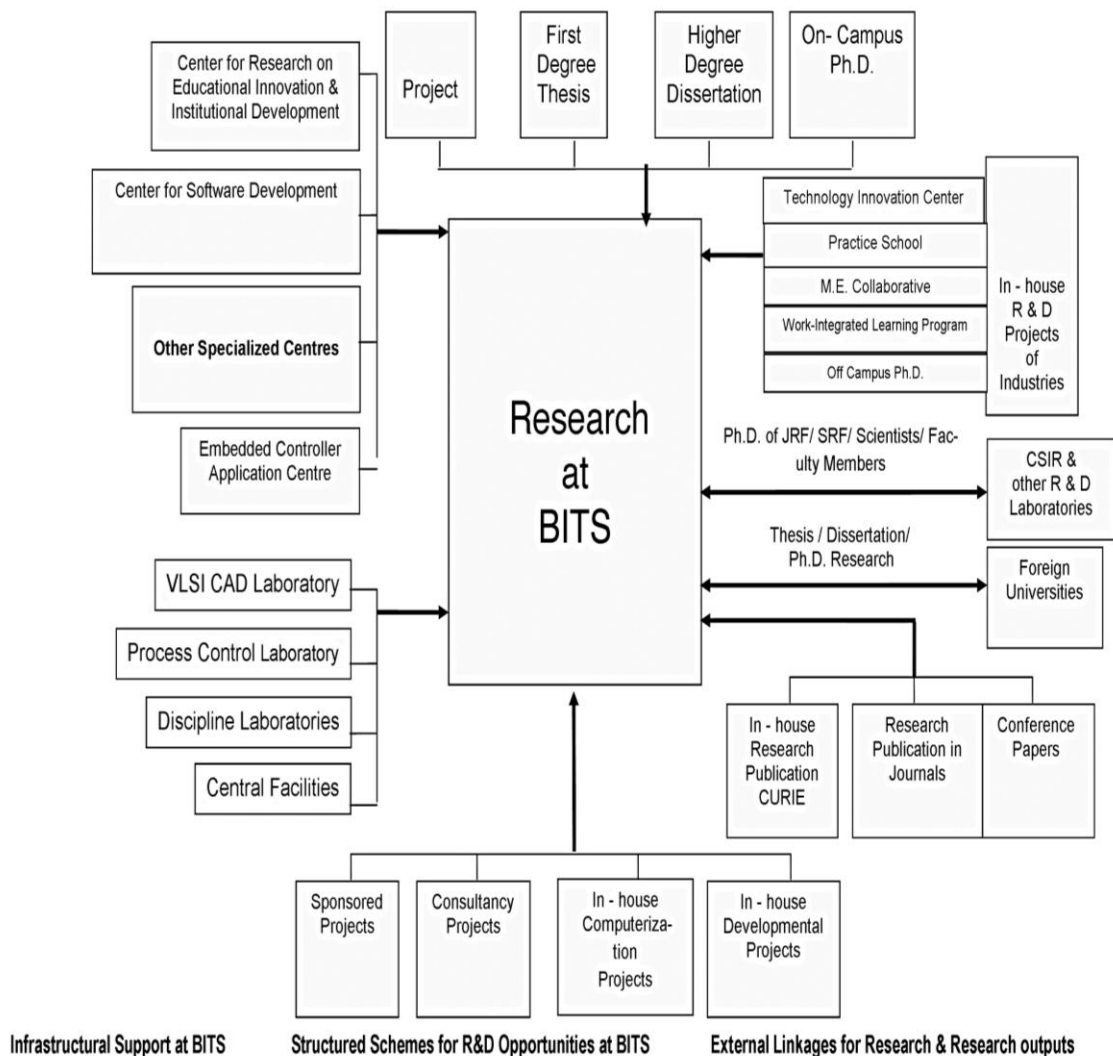
Hyderabad Campus

1. DST-SERB sponsored online Training and Workshop on Road Safety Management Practices in India: Lessons Learned and Way Forward was organized in the area of road testing by Department of Civil Engineering on June 02, 2021
2. International Webinar on Recent Developments in Cosmology and Modified Gravity was organized by the department of mathematics during 9-12 March 2021
3. National workshop on Emerging Technologies of Electric Vehicles & Hybrid Electric Vehicles: Challenges in Design, Manufacturing and Control Systems (EV-2020) by Mechanical Department & EEE Department (Online Mode) during Oct. 21 and 22, 2020.
4. 1st International & 13th National conference on Industrial Problems on Machines and Mechanisms (IPRoMM-2020) was organized by the Department of Mechanical Engineering during Dec. 21 and 22, 2020.
5. Training Session on Miniaturized Devices Organized under a sponsored project by Swechha and International Exchange Alumni, Department of State, USA.

6. Next Generation Smart Generation, Organized under a sponsored project by Swechha and International Exchange Alumni, Department of State, USA. Hosted by Prof. Sanket Goel 31.07.2020
7. Hiroshima University and BITS-Pilani - 1st Workshop Organized under the MoU between Hiroshima University and BITS-Pilani in the area of sensing and energy harvesting, 19.08.2020.
8. International Webinars on Recent Innovations on NonCentrifugal Sugar Production (IWIN 2020) organized by BITS Hyderabad Campus (On line mode) 28th July 2020 – 8th August 2020
9. Seminar on Chemistry of molecules in solid-state: mechanical effects by Prof. C Malla Reddy, Indian Institute of Science Education and Research (IISER) Kolkata, 30.06.2020.
10. Seminar on JAGADISH CHANDRA BOSE: THE ROAD NOT TAKEN by Gautam Basu, Bose Institute Kolkata held on 28.07.2020
11. Seminar on Ritual, Sincerity, and Human Flourishing: Theories from Classical China by Prof. Michael Puett, Harvard University 8 th May, 2020
12. A seminar on Cognitive and social-emotional development in young deaf and hard of hearing children - expert- Dr. Evelien Dirks. NSDSK, Amsterdam, the Netherlands organized by Department of Humanities and Social Sciences on March 31, 2021.

10. Patents filed during 2020-21

S.No.	Indian Patent Application	Title of Patent
1	202011001052	Indolyl Oxoacetamide Analogues as potent Pancreatic Lipase Inhibitors
2	202011020964	A Device for Making Designs on a Substrate
3	202011017181	A Thermal Management System for a Microfluidic Device for Synthesizing Nanoparticles
4	202011013788	Variable Length Fast Fourier Transform Processor
5	202011020965	Amide Derivatives Of Aminolevulinic Acid
6	202011027921	Solar Distillation Apparatus
7	202011034072	Laparoscopic Surgical Device
8	202011034009	Corrugated Tube Heat Exchanger
9	202011047756	Herbal Formulation and a method of preparation thereof
10	202011039995	Electronic Nasal Filter
11	202011016480	A Device For Conducting Three-Point Or Four-Point Flexural Fatigue Strength Testing Of A Specimen
12	202011024477	Hollow Fiber Membrane and Preparation thereof
13	202011052024	Legged Stair-climbing mechanism
14	202011016481	Orally Administrable Thermosensitive Liposome For Encapsulating A Molecule
15	202011039994	Architecture-independent virtual machine for Parallelization of clustering Algorithms
16	202011024478	Pharmaceutical Composition for Treating Obesity
17	202011016007	One Part Geopolymer Composition and Process Thereof
18	202011016005	System for Water Storage with Heat Exchange for Treating Ambient Air
19	202011041936	A Power sharing system and method thereof
20	202111010776	Process For Preparing Porous Polymer Beads



IV. INFRASTRUCTURE FOR RESEARCH

The Institute over the years has built up a moderate infrastructure for research work. Apart from the normal laboratory facilities in all the disciplines, the Institute has also built up centralized infrastructural facilities for the support of research work across the Institute. Some of these are described below:

Each department has been allotted budget for purchasing equipment/develop ICT infrastructure etc. These are required to cater to the specific needs of the department. The details are elaborated in the departmental evaluative reports.

Central Analytical Lab

The Institute provides budget for a central instrumentation facility named as Central Analytical lab (CAL lab) in each campus. This houses the major research equipment's needed in sciences and engineering disciplines. The equipment purchased through this fund are utilized by multiple departments and hence housed at a central. Approximately, 15 crores have been allotted to the 3 Indian campuses in the recent past for procurement of high end equipment's and for improving the research infrastructure. University has also allocated funds for each campus for high cost, sophisticated equipment under the Central Instrumentation facility like NMR, SEM, AFM, XRD, confocal microscope, Raman Spectroscopy, LC-MS etc.

High Performance Computing Facility & Cloud Computing

Kosambi: A University-wide Internet-accessible High Performance Computing Facility at BITS Pilani, K K Birla Goa Campus. It currently comprises of 96 cores HPC machine from IBM with one head node and 6 compute nodes. Currently faculties will have login (on request basis) and can manage their account through remote login. Faculty colleagues in K. K. BIRLA Goa campus are already using this facility, along with a few from other campuses. The HPC Admin Team at Goa campus will be enabling this as a cloud computing facility to Pilani and

Hyderabad shortly. Software(s) currently available in Kosambi are: OS - Red Hat Enterprise LINUX - 6.3 IBM CMM (Cluster Management Module) Mathematica 9.0 and other regular default RHEL open source software(s).

ICT Facility

Information Processing Center takes care of the IT related requirements of the entire campus. IPC maintains terminal rooms (Labs) to provide centralized computing facilities to the students and laboratories for teaching and research needs of Computer Science Department. These labs/terminal rooms are well equipped with desktops and work stations. Campus-wide network with dataports, wired and Wifi connectivity is maintained so as to ensure internet facility at all hostel rooms, cafeteria, library, staff quarters, and all laboratories within the campus. Some departments have independent computational labs with network clusters to take care of their specific research needs. For eg: Chemistry/Pharmacy/Biological Sciences have labs for research work pertaining to computer aided drug design and Bioinformatics etc.

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, analgesiometer, 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.

The Institute has set up a number of centers and laboratories of research & development as given below-

S.No	Name of the Centre	Description
1.	Anuradha and Prashanth Palakruthi Center for Artificial Intelligence Research (APPCAIR)	AI as an idea goes back at least two millenia, and can trace its modern roots to pre-1950 work on computation and mathematical models for neuroscience. Since then, the field has overcome great challenges and we are now at a point where AI techniques-especially data-driven ones-are expected to play an important role in the Sciences, Engineering, Business and the Humanities. APPCAIR's research will be looking to make conceptual contributions to AI; and to the application of AI to problems of industrial, scientific and social importance.
2.	Center for Biotechnology	The Centre has in-house facilities of Genetic Engineering and Recombinant-DNA Technology. This Centre aims at taking up research and development projects from various sponsoring organizations, (establishments of University-Industry linkage) through various R&D contract projects and conducting periodic Workshops and hands-on training for faculty members, industry personnel and students in the area of advanced molecular biology/biotechnology and bioinformatics.
3.	Centre for Desert Development Technologies (CDDT)	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.
4.	Centre for Educational Technology (CET)	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-campus, as well as off-campus, operations of the Institute and helps in their deployment.
5.	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.

S.No	Name of the Centre	Description
6.	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 the Indian Industry competitive by developing indigenous technical skills, manpower and innovative spirit.
7.	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.
8.	Centre for Software Development (CSD)	The Centre for Software Development (CSD) is the 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, the 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 Computer Science & Information Systems., under the new name of Wearable, Pervasive Computing Networking Research Laboratory.
9.	Embedded Controller Application Centre	This Centre was 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 of 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 by developing course modules for these courses
10	Technology Business Incubator (TBI)	TBI promotes developing technology- enabled ventures in the areas of Information and Communication Technologies for telemedicine and healthcare, Biotechnology/Pharmaceutics Embedded systems, VLSI and other areas. Also TBI, supports entrepreneurial leadership across all disciplines, facilitates entrepreneurial activity amongst students, and invites entrepreneurs to use TBI services so as to develop end-products for commercialization
11	CORE	A virtual centre on interdisciplinary research in waste, water and energy management has been created to encourage technology/product development, real life problem solving in comprehensive manner. Internal fund is provided to 5 projects comprising research teams of cross campus and multidiscipline researchers.
12	TLC	TLC has been formed for the professional development of BITS faculty as well as non- teaching academic staff associated with teaching activities (laboratory technicians, demonstrators). The TLC also aims to engage research in various aspects in teaching and learning. Further, to bring best practices in teaching and learning across the globe, and share their experiences through direct or indirect modes are some objectives of this centre.
13	Centre for water resources	The centre for excellence in water resources management (CEWRM) was established in Hyderabad campus as national regional/ international centre to provide innovation in sustainable research, education and training in water resources management and allied fields.
14.	Rotational Moulding Centre for Education and Research (RMCER)	To provide for and promote education and research through joint industry-academia partnership in the area of rotomoulding, undertake industry relevant R&D projects, solve industry problems provide testing services, undertake consultancy, develop innovative prototype and products, new design and developments.

Completed Doctoral Theses 1964-2020

This annexure presents discipline wise classification of various Ph.D. theses and the number of Ph.D. degrees awarded year wise since 1964.

Discipline wise classification of Doctoral Degrees Completed:

S.No.	Discipline	Total
1.	Biological Sciences	261
2.	Chemical Science & Engineering	48
3.	Civil Engineering	61
4.	Computer Science	110
5.	Economics	30
6.	Educational Development	16
7.	Electrical, Electronics, Communication & Instru. Engineering	126
8.	Humanities & Social Sciences	67
9.	Management	111
10.	Mathematics	50
11.	Mechanical Engineering	114
12.	Pharmacy	186
13.	Physics	92
14.	Chemistry	149
15.	Hospital and Health System Management	04
	Total	1425

Number of Ph.D. degrees submitted and awarded year-wise:

Year	No. of PhD's
1965	3
1966	5
1967	5
1968	8
1969	16
1970	13
1971	13
1972	17
1973	7
1974	13
1975	11
1976	14
1977	16
1978	13
1979	10
1980	5
1981	11
1982	7
1983	6

Year	No. of PhD's
1984	6
1985	3
1986	2
1987	0
1988	3
1989	2
1990	8
1991	7
1992	7
1993	17
1994	12
1995	15
1996	23
1997	21
1998	15
1999	7
2000	9
2001	11
2002	15

Year	No. of PhD's
2003	18
2004	23
2005	26
2006	36
2007	32
2008	37
2009	36
2010	33
2011	35
2012	37
2013	46
2014	54
2015	81
2016	115
2017	105
2018	106
2019	121
2020	108
Total	1425

Completed Higher Degree Dissertations

Higher Degree Dissertations

S.No	BITS ID	Name	Topic	Supervisor	Department
Pilani Campus					
SEMESTER-II 2019-20					
1.	2018H1290016P	Krishnaveni R	determining the rate of CRISPR Cas system in regulating the pathogenicity of Salmonella enterica serovar Thyphimurium	Sandhya marathe	Biological Sciences
2.	2018H1290025P	Sanhita Ghosh	Analyzing genetic signature of drug resistance and understanding the functional relevance.	Rajdeep Chowdhury	Biological Sciences
3.	2018H1290024P	Tejasvini S.B	Unraveling the role of p53 and YAP in tumor cells.	Rajdeep Chowdhury	Biological Sciences
4.	2018H1290007P	Prachi Dabhade	identifying genetic signatures associated with EMT and its functional relevance.	Sudeshna Mukherjee	Biological Sciences
5.	2018H1290015P	B Shrinidhi	synthesis and characterization of metal nanoparticles and its biological applications.	Sudeshna Mukherjee	Biological Sciences
6.	2018H1290017P	Dhanabala Subhiksha R.K	Elucidation of protein involved in Fe-S cluster biogenesis pathway from Plasmodium	Shilpi Garg	Biological Sciences
7.	2018H1290023P	Santonu Kumar Pradhan	Understanding the role of high glucose dependent changes in cellular viscosity in mediating epigenetic changes responsible for endothelial dysfunction.	Syamantak Majumder	Biological Sciences
8.	2018H1290009P	Shreya Fadnavis	Mycodegradation of recalcitrant plastics	Jitendra Panwar	Biological Sciences
9.	2018H1010027P	Dandigunta Babuji	Judicious Engg. Ofmicrobiomes For Effective Bioprocess Development.	Dr. Abhishek S Dhoble	Chemical Engineering
10.	2018H1010028P	Mehta Harshil Amitbhai	Nickel Catalytic Monolith Reactors For Hydrogen Production.	Dr.Srinivas Appari	Chemical Engineering
11.	2018H1010029P	K Janani	Cfd Characterization Of Gas-Solid Flow In Conventional Homogeneous Regime.	Dr. Priya C Sande	Chemical Engineering
12.	2018H1010030P	Krithika.B	Hybrid Polymer Nanocomposites For EMI Shielding Applications	Dr.Krishna C Etika	Chemical Engineering
13.	2018H1010032P	Avinash Maran Beena	Fault Detection In Tennessee Eastman Process.	Dr. Ajaya Kumar Paani	Chemical Engineering
14.	2018H1010034P	Balivada Kusum Kumar	Integratedapproach(Nano-Adsorbent & Bio-Adsorbent) For The Recovery Of Zn From Fiber Industry Effluent.	Dr. Suresh Gupta	Chemical Engineering
15.	2018H1010035P	Shrinidhi Sambamurthy	Lca Of Recycling Spent Li-Ion Batteries.	Dr. Smita Raghuvanshi	Chemical Engineering
16.	2018H1010037P	S. Nirmal Kumar	Natural Gas Steam Reforming Using Sulphur- Passivated Catalysts.	Dr. Bhanu Vardhan Reddy K	Chemical Engineering
17.	2014HS300503P	Shubham Aggarwal	Silica Fume blended Geo polymer concrete in pavements.	DR MUKUND LAHOTI	Civil Engineering
18.	2014HS300720P	Shreyas Pranav	Silica Fume Blended Geo polymer Concrete in Pavements	DR MUKUND LAHOTI	Civil Engineering
19.	2018H1440049P	Deepak Chaurasia	Development of decision support system for water management	PROF. AJIT PRATAP SINGH	Civil Engineering
20.	2018H1440046	Bhoomi Satish Shah	Data driven decision making in water Resource Management	PROF. AJIT PRATAP SINGH	Civil Engineering
21.	2018H1440044P	Dheeraj Gupta	Construction Risk Analysis & extension of Time Claims	DR. G. MUTHUKUMAR	Civil Engineering

S.No	BITS ID	Name	Topic	Supervisor	Department
22.	2018H1300074P	Amudha Barathi M	Investigating the Impact of Aggregation Levels on Fright Production & Freight Trip production models: A Segmentation Approach	DR. PRASANTA KUMAR SAHU DR. PRIYANSH SINGH	Civil Engineering
23.	2013HD120838P	Harsh Sinha	Learning to Dehaze Dense	Pratik Narang	CS&IS
24.	2014HS030128P	Gaurang Bansal	Real Time Applications of SDN in IoT Networks	K Haribabu	CS&IS
25.	2014HS120212P	Nihal M	Biomedical Image Analysis using Deep Learning	Sundaresan Raman	CS&IS
26.	2018H1030123P	Subham Kumar	Automatic Disease Diagnosis using Deep Learning	Sundaresan Raman	CS&IS
27.	2018H1230236P	Vivek Rathore	Resource Provisioning and management for 5Gbase station network	Dr. Vinay Chamola	EEE
28.	2018H1420189P	Arpit Rastogi	FEM Analysis of manufacturing Process.	T.C.Bera	Mechanical Engineering
29.	2018H1060220P	A. Aravinda De Chinna	Impact of climate change on heating and cooling energy consumption of buildings in india.	Aakash C.Rai	Mechanical Engineering
30.	2014HS060855P	Rishabh Gupta	Impact of climate change on heating and cooling energy consumption in buildings.	Aakash C.Rai	Mechanical Engineering
31.	2018H1060216P	Pushkar Anirudha Pandit	Modelling microstructure evolution in a weld effelted zone for eutectics system.	Murali Palla	Mechanical Engineering
32.	2018H1410155P	Rajat Gupta	Diagnosis of defects in composite structure using experimental techniques.	Arun Kumar Jalan	Mechanical Engineering
33.	2018H1410166P	Deepak Sharma	Thermo-hydrodynamics of droplets.	A R Harikrishnan	Mechanical Engineering
34.	2018H1060211P	Sunil Menaria	Hydrodynamic and thermal transport at microscale.	A R Harikrishnan	Mechanical Engineering
35.	2018H1080300P	Maithili Kali	Development and evaluation of solid dosage form of self assembly temozolamide	Dr.Deepak Chitkara	Pharmacy
36.	2018H1460326P	Mansi Singh	Development and evaluation of docetaxel loaded nano-carries for cancer	Dr.Deepak Chitkara	Pharmacy
37.	2018H1080296P	Niharika Shiva	Acute kidney Injury and distal organ dysfunction	Prof. Anil B. Gaikwad	Pharmacy
38.	2018H1080303P	Pooja Dalip K Rao	Organ Fibrosis	Prof. Anil B. Gaikwad	Pharmacy
39.	2018H1080304P	Arisha Mahmood	Design, characterizatioan and optimization of nano-carrier system	Dr. Gautan Singhvi	Pharmacy
40.	2018H1080302P	Shubham Arus S	Designing of polymorphic nano-carries for delivery of antioxidants	Dr. Anupma Mittal	Pharmacy
41.	2018H1460329P	K Sai Pradyuth	Designing of In situe gelling system carrying porous particle as drug delivery vehicle	Dr. Anupma Mittal	Pharmacy
42.	2018H1080297P	Sonia Guha	Devlopment and evaluation of nanospherical polymoric micro nanoparticle encapsulating diff drugs	Dr. Anil Jindal	Pharmacy
43.	2018H1470314P	Surbhi	Synthesis of alpha phosphonates as DXR inhibitors	Dr. Sandeep Sundriyal	Pharmacy
44.	2018H1470313P	Faheem	Design, Synthesis and study of novel beta -carboline analogues as Antileishmania agents	Prof. S.Murugesan	Pharmacy
45.	2018H1470312P	Meet R. Bhatt	Differentiating Glucordination and sulfonation of drug like compounds using molecular docking	Dr. Vaibhav A. Dixit	Pharmacy

S.No	BITS ID	Name	Topic	Supervisor	Department
46.	2018H1460324P	Beulah V	QBD driven design of matrixs in matrix controlled release solid oral dosage form	Dr.Murali M Pandey	Pharmacy
47.	2018H1460333P	Shreehari Krishna K	Solubility enhancement of poorly soluble herbal extracts	Dr. Atish T Paul	Pharmacy
48.	2018H1460327P	Siddhant Harish H	Design and characterization of selected drugs loaded novel nanocarrier for CNS Disorders	Dr.Sunil K Dubey	Pharmacy
49.	2018H1460319P	Vidyadhar Gandla	Design and Development of amorphous system for Solubility enhancement of poorly soluble drugs	Dr.Murali M Pandey	Pharmacy
50.	2018H1460321P	Daksha Anil Rao	Design and Development of protein based scaffold	Dr.Aniruddha Roy	Pharmacy
51.	2018H1080302P	Tanmay Padhye	To prepare nanoformulation for enhancement of bioavailability of BCS class -iv drugs	Dr.Aniruddha Roy	Pharmacy
52.	2018H1490370P	Deepanshu Kumar	Impact of political advertising on election outcome	DR PRAVEEN GOYAL	Management
53.	2018h1490376p	Bhomender sing Rathore	Effectiveness of music in advertising	DR PRAVEEN GOYAL	Management
54.	2018H1290014P	Prerika Mathur	Genomic approaches to rare disease therapies	Vinod Scaria Shibashish Chowdhury	Biological Sciences
55.	2018H1290021P	Rajashree Banerjee	Synthesis and characterization of metal nanoparticles and its biological applications.	Ritushree Kukreti Meghna Tare	Biological Sciences
56.	2018H1290021P	R. Rachana	Molecular studies of carbohydrate metabolisms related genes in rice	Divya P Syamaladevi Prabhat Jha	Biological Sciences
57.	2013H1120285P	Tareq Mohd Nazir	Instruction Set Randomization for Webassembly	K Haribabu	CS&IS
58.	2018H1230234P	Atif Jan	Microfabrication and characterization of low noise thin film transistors (TFTs) for analog applications.	Dr. Jan Genoe Dr. Navneet Gupta	EEE
59.	2018H1490353P	Bhuwan Sangwan	Power Sector and government regulation	RAHUL VARSHNEY S K SHARMA	Management
SEMESTER-I 2020-21					
1.	2019H1010003P	N Aravindh	Non Photosynthetic conversion of flue gases (CO ₂ , SO _x , NO _x) in lab scale bioreactor.	Smita Raghuvanshi Suresh Gupta	Chemical Engineering
2.	2018H1300082P	Sadiya Shaikh	Numerical Simulation Of Consolidation In Embankment Construction	Nishant Roy PRIYANSH SINGH	Civil Engineering
3.	2019H1010006P	Ashish Patil	Dual bed reforming on monolith catalysts	Arvind Kumar Sharma Srinivas Appari	Chemical Engineering
4.	2019H1010502P	Shukla Suryaprakash Shailendrakumar	Valorization of biomass to aromatics.	Srinivas Appari	Chemical Engineering
5.	2019H1010503P	Ankit Pahwa	Hydrodynamic and Mass Transfer Aspects of Fluidized Beds	Arvind Kumar Sharma	Chemical Engineering
6.	2019H1010008P	Nishtha Gupta	Synthesis, Characterization, and testing of MOF based Mixed-Matrix Membranes for Biogas upgradation.	Bhanu Vardhan Reddy Kuncharam	Chemical Engineering
7.	2019H1010011P	Indraja S	Hydrogen Production from Ethanol by Low Temperature Reforming Methods Using Modified Ni Catalysts	Banasri Roy	Chemical Engineering
8.	2019H1010010P	Soham Seth	Mixed matrix hollow fiber membranes for desalination applications	Somak Chatterjee	Chemical Engineering

S.No	BITS ID	Name	Topic	Supervisor	Department
9.	2019H1010500P	M R Kuladeep	Utilisation of crop residue for development of low cost functionalized adsorbents and its applications: life cycle analysis and techno-economic feasibility analysis	Suresh Gupta	Chemical Engineering
10.	2019H1010007P	Kashetti Shrutika Vijay	Eulerian-Eulerian CFD Simulation of multiphase flow with simultaneous reaction.	Priya Christina S	Chemical Engineering
11.	2019H1010505P	Subhadip Sen	Process design and integration of RDF gasification in cement manufacturing process	Sheth Pratik N	Chemical Engineering
12.	2019H1010506P	Arpitha V	Process Monitoring and Fault Detection for Complex Chemical Processes	Ajaya Kumar Pani	Chemical Engineering
13.	2019H1010504P	Aditya Narayanan	Novel Approaches for Revamping Anaerobic Digestion and other Constituent Technology in Resource-Constrained scenarios	Abhishek Suresh Dhoble	Chemical Engineering
14.	2019H1010002P	Namrata Kalwani	Design modifications of the biomass gasifier to enhance the tar cracking	Sheth Pratik N	Chemical Engineering
15.	2019H1010005P	Patel Vashishtha Baldevbhai	Degradation of Pectin by Hollow Fiber Membrane Immobilized Pectinase	Abhishek Dhoble Somak Chatterjee	Chemical Engineering
16.	2019H1010501P	Akshat Verma	Flame Retarding Nanocoatings For Artificial Leather and Layer-by-Layer Assembly of Super Gas Barrier Coatings for Food Packaging Applications.	Etika Krishna Chaitanya	Chemical Engineering
17.	2019H1010004P	Arjun Chowdhury	Surfactant Foam-Nanoparticle systems for treatment of contaminated soil.	P Chattopadhyay Banasri Roy	Chemical Engineering
18.	2019H1010001P	Aditya Pankaj Ranpura	Design of Soft Sensors for Monitoring and Control of Complex Industrial Processes.	Hare Krishna Mohanta Ajaya Kumar Pani	Chemical Engineering
19.	2019H1010009P	Aditya Sanjiv Sahani	Biosurfactant production from spent wash	Amit Jain Prabhat Nath Jha	Chemical Engineering

Dubai Campus

SEMESTER-II 2019-20

1	2018H1120019U	F. Z. Badrudeen Ahmed	Image sentiment analysis using deep learning	Dr. Siddhaling Urolagin	Computer Science
2	2018H1410006U	Janhavi Narendra Hasabnis	Numerical homogenization to predict thermo-mechanical response of nanocomposites with Curved CNTs	Dr. Priyank Upadhyaya	Mechanical Engineering
3	2018H1490007U	Jesu Raja Santiago	The impact of intra organizational social capital and perceived organizational support on expatriate job performance in the arab peninsula: the role of islamic work ethic	Dr. Nitin S Vihari	Humanities & Social Sciences
4	2018H1310025U	Jismin Poulose	To study and propose enhancements in design of low voltage switchboard network and also to suggest modifications / improvements in terms commercial	Dr. Sunil Thomas	Humanities & Social Sciences
5	2018H1310012U	Jomon P.C	Case study on power quality problems, mitigation techniques and energy optimisation for a low voltage industrial plant.	Dr. Shazia Hasan	Electrical & Electronics Engineering
6	2018H1310021U	Saroj Mohapatra	Igbt failure investigation due to combined effect of temperature rise and different switching frequencies	Dr. Abdul Rajak	Electrical & Electronics Engineering

S.No	BITS ID	Name	Topic	Supervisor	Department
7	2018H1120002U	Kavita Maji	Ethereum for IOT security	Dr. Sujala D. Shetty	Computer Science
8	2018H1490020U	P. Manjari	Service quality assessment of educational institution using quantitative and qualitative analyses	Dr R. Karthikeyan	Humanities & Social Sciences
9	2018H1410015U	Mannat Gill	Hybridization of solar-wind-pumped-hydro storage system	Dr. Shashank Khurana	Mechanical Engineering
10	2018H1410024U	Mohamed Nihas	Modelling, kinematic analysis and path planning through simulation of Parallel manipulators using matlab multibody environment	Dr. R.Karthikeyan	Mechanical Engineering
11	2018H1120001U	V. S. Praveen Kumar	Intrusion detection in home network security using machine learning	Dr. Siddhaling Urolagin	Computer Science
12	2018H1490022U	Prem Dakshin	Factors determining reserve accumulation of countries	Dr. Sartaj Rasool Rather	Humanities & Social Sciences
13	2018H1410016U	Rahul Srivastava	Study of heat transfer and flow characteristics in micro pin fin heat sink	Dr. Naveen Shrivastava	Mechanical Engineering
14	2018H1490003U	Javeri Saket Mahesh	Exchange rate determination & stability – an analysis of preliminary evidence	Dr. Sartaj Rasool Rather	Humanities & Social Sciences
15	2018H1490004U	Virani Salim Sherali Yasmin	Studying the cost – benefit analysis and improving the efficiency of Biochemistry analyzer (dimension exl 200) for glucose and other parameter Placed at laboratory of kalba hospital.	Dr. Parizad Phiroze Dungore	Humanities & Social Sciences
16	2018H1490026U	Sanjay S Peter	Studying the importance and preservation of information security in industries	Dr. Sujala D. Shetty	Computer Science
17	2018H1120008U	Sheeba Uruj Ahmad	Cloud security	Dr. S. Vadivel	Computer Science
18	2018H1490010U T	Thamizh Selvan Baskaran	Impact of work place acculturation on expatriate job performance: empirical evidence From uae	Dr. Nitin Vihari	Humanities & Social Sciences
19	2018H1490014U C	Yash Chaudhari	Erp systems and their effects on organizations	Dr. Gulshan Kumar	Mechanical Engineering
20	2018H1120018U	Zahabiya Mhowwala	Movie rating prediction using ensemble learning	Dr. A. Razia Sulthana	Computer Science
21	2018H1490023U	Dhanya Shetty	Impact and influence of organizational culture on innovation management	Dr. Shazi Sha Jabeen	Humanities & Social Sciences
SEMESTER-I 2020-21					
1	2018H1310910U	Mahadevan Vaithilingam	Investigation of Harmonic Generation From Dimmable Lamps	Dr.R. Gomathi Bhavani	Electrical & Electronics Engineering
2	2018H1310909U	Nabeel Nesam	A Study on Controlling Strategies At The Point Of Interconnection In Utility Grid	Dr. Sunil Thomas	Electrical & Electronics Engineering
3	2018H1120900U	Sarala Devi J	Video Object Segmentation guided refinement on foreground-background objects	Dr. Razia Sulthana	Computer Science
4	2018H1410912U	Deepu.S.	Response Spectrum Analysis Of Hydraulic Work Over Rig Structure	Dr. Priyank Upadhyaya	Mechanical Engineering
5	2018H1120913U	Gavuji Rohith	Analyzing Consumer Complaints using Natural Language Processing and Deep Learning	Dr. Angel Arul Jothi	Computer Science
6	2018H1120906U	Sweta Suman	Video/Image Sentiment Analysis to Publish Relevant Advertisements	Dr. Siddhaling Urolaign	Computer Science

S.No	BITS ID	Name	Topic	Supervisor	Department
7	2018H1490901U	Dharsana Sree S	Impact of COVID 19 on Educational Sector	Dr Shazi Shah Jabeen	Humanities & Social Sciences
8	2018H1490903U	Mohamed Suhail H	The Effect of Regional Pandemic Severity on Employee Mental Health Distress Outcomes: Role of Resilience Based Coping Strategies	Dr Nitin Simha Vihari	Humanities & Social Sciences
9	2018H1490907U	Malde Jay Rajesh Vandana	The Great Lockdown during Covid-19: Its long term economic consequences and challenges	Dr Sartaj Rasool Rather	Humanities & Social Sciences
10	2018H1490908U	Sujit Joseph Mathews	Oil price shocks - its spillover and long-term consequences	Dr Sartaj Rasool Rather	Humanities & Social Sciences
Goa Campus					
SEMESTER-II 2019-20					
1	2018H1030044G	SOUMYADIPTA BANERJEE	An Experimental Study of The Application of Smirnov-Kolmogorov Test To Validate Existing Neural Population Models With EEG Data	Basabdatta sen Bhattacharya	Computer Science and Information Systems
2	2018H1290004G	GEETHIKA M	One pot synthesis of pegylated Doxorubicin loaded Silver nanoparticles against oral cancer as Drug Delivery System	Dr.Vijayashree Nayak	Biological Sciences
3	2018H1030068G	Narendran T	Network Security in Cloud Computing	Vinayak Naik	Computer Science
4	2018H1030066G	Shantanu Kulkarni	Formal Verification of Security Systems	Dr. A. Baskar	Computer Science and Information Systems
5	2018H1030053G	Enuganti Pavan Kumar	Training Spiking Neural networks for Visual Cognition	Basabdatta sen Bhattacharya	Computer Science
6	2018H1290015G	Navneet Panesar	Treatment of third rinse water from washing machine	Prof. Srikanth Mutnuri	Biological sciences
7	2018H1410076G	Pranav Kalikate	Crack Characterization using Acoustic Emission Technique	Dr. Vikas Chaudhari	Mechanical Engineering
8	2018H1410098G	Deshmukh Rashid Ather Sayeed	Evaluation of mechanical performance of the 3D printed PEEK polymer used in space applications	Dr. Vikas Chaudhari	Mechanical Engineering
9	2018H1410093G	Yaswanth Narayana	Passive Hand Exoskeleton	Pravin M. Singru	Mechanical Engineering
10	2018H1290002G	Archana Yadav	Exploration of the antibiofilm potential of the purified antifungal peptide from Bacillus sp.	Dr Utpal Roy	Biological Sciences
11	2018H1410183G	Vipul Ritwik	Development of Test Specimen to study for peizobased anti fouling system	Devendra Gokul Patil	Mechanical
12	2018H1010021G	Lubna Muzamil Rehman	Understanding the thermodynamics of Salt water systems	Anirban Roy	Chemical Engineering
13	2018H1010026G	Kumar Vishwa Ranjan	Electrochemical alteration of the surface wettability	Dr. Pradeep Kumar Sow	Chemical Engineering
14	2018H1010027G	P Sai Pavan Kalyan	Modeling and CFD simulation of fire tube steam boiler system to predict the water level fluctuations in the steam drum	Dr Amol Deshpande	Chemical Engineering
15	2018H1010022G	Dolly Saxena	Synthesis of Metal organic framework and its application	Dr Sharad M Sontakke	chemical
16	2018H1010029G	Rishi Raj Tripathi	Thermodynamics of the crystal growth mechanism of tailored HAP nanoparticles	Prof. Sutapa Roy Ramanan	Chemical Engineering
17	2018H1010030G	Pruthivi	Experimental and theoretical investigation for photocatalytic activity of composite materials	Saroj sundar baral	Chemical engineering
18	2018H1010031G	Akshay Gaikwad	First Principle study of fullerene nanomaterial for hydrogen storage	Dr.Paramita Haldar	Chemical Engineering

S.No	BITS ID	Name	Topic	Supervisor	Department
19	2018H1010028G	anegondi Nateri Achyuth	Investigation of acid or amphiphilic nanocomposites for desalination application	Dr.Jegatha Nambi Krishnan	chemical engineering
20	2018H1010032G	Kishlay Bhaskar	Modeling of Gas Hydrate Formation Dissociation Kinetics	Prof. Srinivas Krishnaswamy	Chemical
21	2018H1010024G	V Sree Kavya	Studies on adsorption of emerging contaminants from wastewater	Prof. S.D. Manjare	Chemical engineering
22	2018H1010020G	Rohit thakran	Investigation on effect of surfactants on gas hydrate formation/dissociation kinetics	Prof. Srinivas Krishnaswamy	chemical engineering
23	2017H1290001G	Romy Roy	Modelling of Bic A/ Sbt A protein	Dr.Rajesh Mehrotra	Biological sciences
24	2018H1010023G	Partha Sarathi Kalita	"Production, Purification and Characterization of Biopolymer from Thermophilic Bacterial strain for Cosmetic Emulsion Application"	Dr. Vivek Rangarajan	Chemical Engineering
25	2019H1520900G	Akanksha Nambiar	Moral Flexibility and society: Ethical Analysis of right to Privacy law in India	Reena Cheruvalath	M.Phil Liberal Studies
26	2019h1520903G	Mithra Gireesh	Attitude Towards climate change: An Environmental Psychology Perspective	Rajiv K Chaturvedi	M.Phil Liberal Studies
27	2018H1400118G	Malaika Afra Taj.S	Improving Performance Of Sensor Networks Using Dual Frequency Band And Edge Processing	Dr. K.R. Anupama	Electrical and Electronics (EEE)
28	2018H1290017G	Uma Matlani	Examining morphogenic transitions in human fungal pathogen; Candida albicans	Dr. Malabika Biswas	Biological Sciences
29	2018H1410090G	Suyash Kumar Mishra	Development of Novel Lightweight Materials	Dr. Sachin Waigaonkar	Mechanical
30	2018H1290016G	Kena Sharma	Analysis of Genomic Databases and Tools for Variant Identification	Dr. Sukanta Mondal	Biological Sciences
31	2018H1410089G	Priyankshu Mhatre	Stress Analysis Of Gas Turbine Structure And Transmission	Dr. PRAVIN SINGRU	ME Design Engineering
32	2018H1290019G	Santhoshi sadhanaa GS	Curation of scientific literature, clinical interpretation and reporting for inherited disease	Dr. Angshuman sarkar	Biological sciences
33	2018H1410111G	Mayank Singh	Stress analysis of Gas turbine installation	Varinder Singh	M.E Design Engineering
34	2018H1410087G	Prakhar Verma	Stress Analysis of gas turbine rotatives	Dr.Pravin M.Singru	Mechanical
35	2018H1410082G	Adarsha Puranik	Stress Analysis Of Gas Turbine Compressors	Varinder Singh	Mechanical Engineering
36	2018H1410078G	Ravu Dheeraj	Stress Analysis Of Gas Turbine Externals	Pravin M Singru	ME Design
37	2018H1290001G	Forona B	Curation of scientific literature, clinical interpretation and reporting for inherited diseases	Dr. Meenal Kowshik	Biological sciences
38	2018H1410107G	John Cherian	Stress Analysis of Gas Turbines	Dr. Pravin M Singru	ME Design
39	2018H1290006G	Nikhila Harikumar	Host Pathogen Interactions and Immune evasion mechanisms	Dr. Anasuya Ganguly	Biological Sciences
40	2018H1290003G	Sivakumar S	Transcription and Epigenetic regulation of brown and beige adipocytes	Dr. Indrani Talukdar	Biological Sciences
41	2018H1290011G	Shilpa V Mishra	Algal Biofilms	Dr. Srikant Mutnuri	Biological Sciences
42	2018H1410110G	Saurabh Misal	Fracture mechanics of a component of the vertical fin	Dr. Sandeep Singh	Mechanical Engineering
43	2018H1290018G	Debarati Sarkar	Study of Microbial Diversity of Different (Red & Black) Soils Using Culturable & Non-Culturable Techniques	Dr. Srikanth Mutnuri	Biological Sciences

44	2018H1290013G	Ananya Misra	Chemotherapeutic intervention in S-180 and cell cycle assessment	Dr. Indrani Talukdar	Biological Sciences
45	2018H1290007G	Sanchi Ahuja	Mitophagy and it's cross talk with neurodegenerative diseases	Dr. Arnab Banerjee	Biological Sciences
46	2018H1290012G	Anusha Koul	Design and validation of a multiplexed isothermal amplification assay	Dr Judith Braganca	Biological Sciences
SEMESTET-I 2020-21					
1	2019H1010006G	Shravani Pankaj Kharote	Synthesis and Application of Metal Organi Frameworks (MOFs)	Dr. Sharad Sontakke	Chemical Engineering
2	2019H1010004G	Jasneet Kaur Pala	Investigating Multi-stage flash (MSF) and Multi-effect distillation (MED) Energetics for Recovery of Water from Hypersaline Streams	Dr. Anirban Roy	Chemical Engineering
3	2019H1010007G	Akshat Khandelwal	Synthesis, characterization and application of visible light-driven composite nano- catalyst for simultaneous hydrogen production and valorisation	Prof.Saroj S. Baral	Chemical Engineering
4	2019H1010008G	Gnanakumar barani	Modeling and CFD simulation of Chemical Vapor Deposition (CVD) reactor used for the production of photovoltaic solar cell grade polysilicon	Dr. Amol Deshpande	Chemical Engineering
5	2019H1010002G	satyam shree	Study on the Amphiphilic Nanocomposite membrane Characteristics for desalination application.	Dr. Jegatha Nambi Krishnan	Chemical Engineering
6	2019H1010009G	Simarpreet Singh Lion	Optimizing nanoporous material for gas storage	Dr Paramita Halder	Chemical Engineering
7	2019H1010005G	Shahi Anmol Vinodkumar	recovery of valuable materials from waste tire by a environmental friendly method	Dr. Manjare	Chemical Engineering
8	2019H1510089G	Keyur Kumar Namdev	Research, Field trials and documentation for new decentralized sanitation and disinfection solution.	Prof. Srikanth Mutnuri	Biological Sciences
9	2019H1510087G	Nirupama Nair	Research, Field Trials and Documentation for New Decentralized Sanitation and Disinfection Solution	Prof. Srikanth Mutnuri	Biological Sciences
10	2019H1510090G	Koushal Kandagatla	Wastewater management in Non-sewered systm	Prof. Srikanth Mutnuri	Biological Sciences
11	2019H1510088G	Hiranya Tallam	Water Body Rejuvenation/Faecal Sludge Management	Prof. Srikanth Mutnuri	Biological Sciences
12	2019H1510091G	Pulkeshin Dubey	Faecal Sludge Management	Prof. Srikanth Mutnuri	Biological Sciences
Hyderabad Campus					
SEMESTER-II 2019-2020					
1	2018H1290001H	Sanchez Preethi E	Study the impact of PRR triggered ER stress signaling pathway-associated inflammation	Dr. Trinath Jamma	Biological Sciences
2	2018H1290002H	Rahul Kumar	Bioencapsulation of Cholera Toxin B (CTB) - fused Musculus IL-22 in Nicotiana benthamiana using TRBO vector system for oral delivery	Dr. Giresha T M	Biological Sciences
3	2018H1290003H	Pooja V Chandran	Development of a rapid diagnostic method for detection of pathogens in wound infection	Dr. Ruchi Jain Dey	Biological Sciences
4	2018H1290004H	Sourav Debsarma Biswas	Design and fabrication of Lab scale MBBR and its performance evaluation using GPS-X 8.0	Dr. P Sankar Ganesh	Biological Sciences
5	2018H1290005H	Murali Krishna Ramgopal	Cloning, expression and purification of Plasmodium vivax	Dr. Vidya Rajesh	Biological Sciences

			Rhoptry neck protein 2 using different heterologous expression systems.		
6	2018H1290006H	Sudhira Chamarty	Identifying potential inhibitors for amyloid formation by a β peptide (1-42) implicated in Alzheimer's Disease	Dr. Ramakrishna Vadrevu	Biological Sciences
7	2018H1290007H	Srinjoy Roy	Studies on source, occurrence, and toxicity of microplastics in landfill leachate	Dr. P Sankar Ganesh	Biological Sciences
8	2018H1290008H	Akash Arora	Cloning and characterization of thermophilic lipase derived from <i>Bacillus licheniformis</i>	Dr. Jayati Ray Dutta	Biological Sciences
9	2018H1290009H	Sakhare Kalyani Rajesh	Synthesis of plant based nanoparticles for antimicrobial and anticancer activity of the oral cavity	Dr. Kumar Pranav Narayan	Biological Sciences
10	2018H1290010H	Shreya Singh	Expression, Purification and characterization of Mouse LIF protein	Dr. Naga Mohan Kommu	Biological Sciences
11	2018H1290011H	Snehasri Motamarry	Cloning rice 45S ribosomal DNA using pBeloBAC-Kan: pUC57 vectors and literature review on expression of non-plant proteins in plant systems.sss	Dr. Gireesha T M	Biological Sciences
12	2018H1290012H	Naga Sai Sriteja Boppudi	Exploratory studies of microbial derived Nitroreductase from <i>Escherichia coli</i> k-12 for potential biological activities	Dr. Jayati Ray Dutta	Biological Sciences
13	2018H1290013H	Sucharita Banerjee	Generation and characterization of an oral cancer cell line for recombination based rapid transgenesis	Dr. Piyush Khandelia	Biological Sciences
14	2018H1290014H	Anuva R	Screening for hypoxia induced circular RNAs expression in solid tumours	Dr. Vivek Sharma	Biological Sciences
15	2018H1290015H	Anushka Gupta	Cloning , expression and purification of plasmodium vivax rhoptry neck protein using different heterologous expression systems	Dr. Vidya Rajesh	Biological Sciences
16	2018H1290016H	Akshaya V P	Liposome mediated gene delivery system	Dr. Kumar Pranav Narayan	Biological Sciences
17	2018H1290017H	Haripriyaa T	Development of rapid diagnostic method for the detection of pathogen in neonatal sepsis	Dr. Ruchi Jain Dey	Biological Sciences
18	2018H1290018H	Kaval Reddy Prasasvi	Cellular Localization Studies DMAP wild type and mutant proteins	Dr. Naga Mohan Kommu	Biological Sciences
19	2018H1290019H	Tabina Mustafa	Cloning and characterization of novel long-non coding RNAs in brain tumor	Dr. Vivek Sharma	Biological Sciences
20	2018H1290020H	Jagnaseni Barman	To study the interaction between <i>A.thaliana</i> and <i>P.putida</i> AKMP7, in rhizobacterial strain known to cause conditional pathogenesis	Dr. Sridev Mohapatra	Biological Sciences
21	2018H1010021H	Supriya B	lattice boltzmann simulation to study film effects duringisothermal drying of square capillary tube	Dr. Vikranth Kumar Surasani	Chemical Engineering
22	2018H1010022H	Meghana Kotla	Pattern Directed Ordering of Dewetting in Ultra Thin Polymer Films	Dr. Nandini Bhandaru	Chemical Engineering
23	2018H1010024H	Pakala Himavarsha	Geological sequestration of CO ₂ using reactive transport modelling	Dr. Vikranth Kumar Surasani	Chemical Engineering
24	2018H1010025H	Shradha Ramesh	Preparation of nanocellulose using biological routes and its application	Dr. D. Purnima	Chemical Engineering
25	2018H1010026H	Nilanjana Panda	Morphologically tuned nanoparticles synthesis for environmental and energy	Dr. Satyapaul Singh	Chemical Engineering

			applications		
26	2018H1010028H	Ipsita Sahoo	Synthesis and characterization of nanocellulose from wood pulp	Dr. Ramesh Babu A	Chemical Engineering
27	2018H1010029H	Sunetra Venkat Chituru	Two Dimensional Modelling of Rising Thermal Jet Plume	Dr. Angan Sen Gupta	Chemical Engineering
28	2018H1300054H	Malavika Jayakumar	Investigation of Trip satisfaction determinants: A case study of New Delhi, India	Dr. Prasanta Kumar Sahu	Civil Engineering
29	2018H1300057H	Rahul Reddy B	Crumb Rubber Modified Bitumen for Sustainable Cold Transportation	Dr. Bandhan Bandhu Majumdar	Civil Engineering
30	2018H1300058H	Lomte Aparna Bhimrao	Establishment of Lane Distribution Factor for Divided Highways	Dr. V Vinayaka Ram	Civil Engineering
31	2018H1300059H	Mullagiri Hemanth	Developing Congestion Pricing Schemes for Hyderabad City	Dr. Bandhan Bandhu Majumdar	Civil Engineering
32	2018H1300063H	Adarsh Raj Srivastava	Evaluation of Performance of Thin layer SMA using Waste Plastic as an Overlay Layer	Dr. Sridhar Raju	Civil Engineering
33	2018H1300066H	Danam Venkata Akhilesh	Analysis of Characteristics of Reclaimed Asphalt Pavement With Styrene-Butadiene-Styrene Polymer Modified Bitumen	Dr. Sridhar Raju	Civil Engineering
34	2018H1430030H	Gavin Francis	Mathematical Modelling of slopes using Chemically Treated Jute and Bermuda Grass	Dr. Anasua GuhaRay	Civil Engineering
35	2018H1430039H	Pusapati S S Jagannadha Varma	Determination of The Mechanical Efficiency of Building Derived Materials as Coarse Aggregates in Concrete	Dr. Arkamitra Kar	Civil Engineering
36	2018H1430042H	Vishnu V Sukumar	Service Life Prediction of Concrete Structures Containing Sugar Industry Secondary By-Product	Dr. Bahurudeen A	Civil Engineering
37	2018H1430047H	Kokkonda Sai Kiran	Research and Analysis of Latest Construction Practices in the Soil Stabilization for Excavation of High Rise Structure Projects	Mr. K Ravi Kumar Dr. Arkamitra Kar	Civil Engineering
38	2018H1430050H	Sistla Saiteja	Finite Element Modelling of Fibre Reinforced Elastomeric Isolators Using Locally Available Material	Dr. Mohan S C	Civil Engineering
39	2018H1430051H	Ansuman Panda	Rheological Study of concrete for high rise building pumping operation	Dr. Bahurudeen A	Civil Engineering
40	2018H1030094H	Kevin Jude Concessao	Defeating return oriented programming using Uprobes	Dr. Chittaranjan Hota	CS&IS
41	2018H1230204H	Sappati Rohit	SnS-WS2 Quantum Dot Hybrid based large area flexible UV Photo Detector	Dr. Parikshit Sahatiya	Electrical and Electronics Engineering
42	2018H1230211H	Ayushi Dube	RISC-V Based Network-on-Chip Architecture	Dr. Soumya J	Electrical and Electronics Engineering
43	2018H1060164H	Shah Divya Rajendra	Regenerative Cooling Analysis for LOX/Methane Liquid Rocket Engine (LRE)	Mr. GnanaGandhi Vasudevan Dr. N. Suresh Kumar Reddy	Mechanical Engineering
44	2018H1060169H	Shanbhag Rahul Govindray	Design and analysis of automated degasser for pharmaceutical application	Dr. Y.V.D. Rao	Mechanical Engineering
45	2018H1060174H	Mansi Saini	Study on Nanoparticles Embedded PCM for heating application of buildings	Dr. S.S. Deshmukh	Mechanical Engineering
46	2018H1060175H	Ramanathan P	Design and analysis of automated pill weight checking device	Dr. Y.V.D. Rao	Mechanical Engineering

S.No	BITS ID	Name	Topic	Supervisor	Department
47	2018H1060176H	Krishna Dutt Pandey	Heat transfer modelling of cold water mist of the cutting zone using FSI model for AISI 4340 steel	Dr. C.P. Kiran	Mechanical Engineering
48	2018H1410127H	Sana Ganesh	Multi objective optimization of titanium alloy composition for Bio-Medical Application	Dr. Amrita Priyadarshini	Mechanical Engineering
49	2018H1410128H	T Sai Akhil	Dynamic analysis of single point cutting tool.	Dr. Brajesh Kumar Panigrahi	Mechanical Engineering
50	2018H1410129H	Vipul Agrawal	To study dynamic response of aluminium honeycomb sandwich panel subjected to air blast.	Dr. N Suresh Kumar Reddy	Mechanical Engineering
51	2018H1410135H	Ayush Morchhale	Warm forming behaviour of IN625 alloy: Experimental investigation, theoretical and numerical prediction.	Dr. Nitin Kotkunde	Mechanical Engineering
52	2018H1410136H	Ayush Kumar	Effectiveness of periodicity in a frame and isolation of VEM in periodic holes for vibration attenuation	Dr. G. R. Sabaresh	Mechanical Engineering
53	2018H1410137H	Revanth Gorripati	Active Vibration control of beams using Piezoelectric patches.	Dr. Brajesh Kumar Panigrahi	Mechanical Engineering
54	2018H1410140H	Piyush Dhande	Design and structural analysis of solid rocket motor component	Mr. Amardeep Srivatsavya Dr N. Suresh Kumar Reddy	Mechanical Engineering
55	2018H1410146H	Shreyas N	Development of fluid-structure Interaction Program for 2d Shell Elements	Dr. K. R.C. Murthy	Mechanical Engineering
56	2018H1480184H	Lagan Pathak	Experimental Study of MPCM Slurry for Cooling Application	Dr. R. Parameshwaran Dr. S S Deshmukh	Mechanical Engineering
57	2018H1480187H	Bonu Praneeth	CFD Analysis of lobed mixed wind turbine.	Dr. K. Supradeepan	Mechanical Engineering
58	2018H1480195H	Abhishek Barun Swain	Increasing the energy efficiency of the bricks by addition various waste organic materials like sawdust and palm fiber	Dr. Santanu Prasad Datta	Mechanical Engineering
59	2018H1460231H	Gadeela Pradeeptha Reddy	Design and development for liposomal carrier system bearing anticancer drug	Dr. Akash Chaurasiya	Pharmacy
60	2018H1460236H	Bollareddy Srivarsha Reddy	5 Fluorouracil and Etodolac co-encapsulated liposomes for targeted drug delivery: A novel Nanomedicine based combinational cancer chemotherapy for Ovarian cancer"	Dr. Arti Dhar	Pharmacy
61	2018H1460244H	K Vandana	5 Fluorouracil and Etodolac co-encapsulated liposomes for targeted drug delivery: A novel Nanomedicine based combinational cancer chemotherapy for Ovarian cancer"	Dr. Arti Dhar	Pharmacy
62	2018H1460250H	T Pranathi	Design and development of anticancer Drug loaded nanoparticles	Dr. Akash Chaurasiya	Pharmacy
SEMESTER-I 2020-2021					
1	2019H1010001H	Vipin KB	Cracking of Hydrocarbon fuel and estimation of thermodynamic properties under supercritical conditions	Dr. Srikanta Dinda	Chemical Engineering
2	2019H1010002H	Chilla Sai Sri Vastav	Superhydrophobic coatings and surfaces based on nanocellulose: Fabrication, Properties and Durability Studies	Dr. D Purnima Dr. Nandini Bhandaru	Chemical Engineering
3	2019H1010004H	Ankita Agarwal	Simulated biosorption of Cu(II) by Olive Stone in Continuous process	Dr. I Sreedhar	Chemical Engineering

S.No	BITS ID	Name	Topic	Supervisor	Department
4	2019H1010005H	Errikipally Mallikarjun	Hydrocyclone: Design and Flow Characteristics	Dr. Ved Prakash Mishra	Chemical Engineering
5	2019H1010006H	Lakshmi Devi Voleti	Influences of different subsurface stratigraphic folds on the residual trapping and structural integrity during CO ₂ geological sequestration	Dr. Vikranth Kumar Surasani	Chemical Engineering
6	2019H1010007H	Sophia Patel	Theoretical study of Instability and Dewetting in Polymer thin films	Dr. Nandini Bhandaru	Chemical Engineering
7	2019H1300067H	Greena Maria Sunny	Assessment of Thermal Degradation of Polymer in Bio-Based Agar Coated SBS Modified Binder	Dr. Sridhar Raju	Civil Engineering
8	2019H1300068H	Revelli Venkatsushanth	Mitigation of Top down Cracking in Flexible Pavements due to non uniform contact Stresses	Dr. Sridhar Raju	Civil Engineering
9	2019H1300551H	Aparna Joshi	Last Mile Delivery in Freight Transportation	Dr. Prasanta Kumar Sahu Dr. Bandhan Bandhu Majumdar	Civil Engineering
10	2019H1430169H	Ankita Barman	Mitigation of Stress-strain in Tire Pavement Interaction Using Finite Element Method	Dr. Chandu Parimi Dr. Sridhar Raju	Civil Engineering
11	2019H1430569H	Rithuparna R	Cleaner Production of Agro-waste Residual Ashes Blended Cement	Dr. Bahurudeen A	Civil Engineering
12	2019H1430571H	Mansi Trivedi	Topology Optimization of Shell Structures Using Machine Learning	Dr. Chandu Parimi Dr. Vasana Arunachalam	Civil Engineering

Completed First Degree Thesis

S.No	BITS ID	Name	Topic	Supervisor	Department
Pilani Campus					
SEMESTER-II 2019-20					
1.	2015B1PS0651P	Rohan Gupta	Development of interactive web-based tools for food biotechnology	P R Deepa	BIO
2.	2015B1A80416P	Rashi Khandelwal	Protein profile in subcellular fractions of adipocytes	P R Deepa	BIO
3.	2015B1A80543P	Anchal Gupta	Mapping epigenetic mechanism of diabetes induced cardiovascular dysfunction	Syamantak Majumder	BIO
4.	2015B1A70478P	Anubrolu Vasudev	Mechanical properties of tumor cells with laboratory equipments.	Rajdeep Chowdhury	BIO
5.	2015B1A70424P	Chaitanya Maheshwari	ML and neural network approach in mirna-mrna recognition	Shibashish Chowdhury	BIO
6.	2015B1A10569P	Arnav Sethi	Comparative genomics of xanthomonas oryzae to identify virulence genes encoding for signature proteins.	Prabhat N Jha	BIO
7.	2015B1A108941P	Robin Arora	Bioinformatics analysis of camel milk and related experiments	Uma Dubey	BIO
8.	2015B1A20887P	Varshith Naidu Edumudi	Developing effective and innovative teaching methods for undergraduate students.	Pankaj Kumar Sharma	BIO
9.	2015B1A10877P	Adnan Khan	Study of thermostability of camel milk proteins by computational analysis and wet lab work.	Uma Dubey	BIO
10.	2015B1A20710P	Abhyuday Sharma	Analysis of various dairy products on gut microbiota	Shilpi Garg	BIO
11.	2015B1A40892P	Pranav Chaturvedi	Effect of milk from a1/a2 cattle on gut microflora	Shilpi Garg	BIO
12.	2015B1A80893P	N L Sai Bhavesh	Molecular pathogenesis- characterizethe endogenous gene targets of crispr-cas system in salmonella	Sandhya Marathe	BIO
13.	2015B1A30584P	Gaurav Bhandari	Bioinformatic analysis of camel milk proteins and related validation studies.	Uma Dubey	BIO
14.	2015B1A80827P	Sushant Gupta	Bioinformatic analysis of lactoferrin protein interaction and validation	Uma Dubey	BIO
15.	2015B1A10540P	Sanchit Bajaj	Developing case studies for biology specific courses.	Pankaj Kumar Sharma	BIO
16.	2015B1A10562P	Pulkit Sharma	Polymorphism studies in p. Falciparum vaccine candidate antigen trap from field.	Vishal Saxena	BIO
17.	2014B1A10290P	Shubham Choudhary	Comparative genomics of pathogenic bacteria	Prabhat N Jha	BIO
18.	2015B1A30644P	Ankit Agarwal	Studies of pdymorphism from trap & resa genes in plasmodium	Vishal Saxena	BIO
19.	2015B1A70773P	Nikhil Ranjan	Conversational ai for consumer query	Nidhi Singh	BIO
20.	2015B1A70873P	Kumar Shreshtha	Development of ai models for adaptive radiation therapy	Nikos Paragios	BIO
21.	2015B2A10820P	Pratyush Samal	Modelling and simulation of a fluidized bed gasification system	Dr. Pratik N Sheth	CE
22.	2015B4A20628P	Nitant Upasani	Development of mathematical tools the automated generation of architectural floor plants.	Dr. Rajesh Kumar	CE
23.	2015B3A20514P	Devesh Vashishtha	Analytical and experimental study on the behavior of masonry infill frames under lateral loads.	Dr. Dipendu Bhunia	CE
24.	2015B1A20878P	Suraj Bansal	An overview of disaster management system.	Dr. G. Muthukumar	CE

S.No	BITS ID	Name	Topic	Supervisor	Department
25.	2015B3A20660P	Vishal Verma	Strength behavior of soil improved with tire chip and plastic strip	Dr. Ravikant Mittal	CE
26.	2015B2A20891P	Paritosh Bansal	Optimum solutions for footing resting on improved ground.	Dr. Ravikant Mittal	CE
27.	2015B5A20754P	Utsav Ajay	Nonlinear time history analysis of steel building.	Dr. G. Muthukumar	CE
28.	2015B1A20736P	Shubham Raj	Economical design of foundations subjected to dynamic loads.	Dr. Ravikant Mittal	CE
29.	2016A2TS0724P	Prityesh Raj	Assessment of mbbr technique at stp of bits pilani.	Dr. Anupam Singhal	CE
30.	2016A2TS0719P	Sanket Jain	Assessment of asp technique at stp of bits pilani.	Dr. Anupam Singhal	CE
31.	2016A2TS0579P	Shivam Singh	Decision support systems for water supply management.	Dr. Ajit Pratap Singh	CE
32.	2016A2TS0613P	Shaurya Singh	Utilization of waste plastic & tire chip in improving marginal soil and mine waste	Dr. Ravikant Mittal	CE
33.	2016A2TS0531P	Arvind Sahu	Decision support systems for water supply management	Dr. Ajit Pratap Singh	CE
34.	2015B2A20780P	Mohammed Adnan Shafique	Structural analysis and forecasting of floods and droughts for a particular area of interest	Dr Shibani Jha	CE
35.	2015B4A20593P	Akshit Bordia	Application of machine learning on solid waste management for efficient prediction and modelling.	Mr. Pratik Jain	CE
36.	2015A1TS0599P	Satrajit Neogy	Fault detection in complex chemical processes.	Dr. Ajaya Kumar Pani	CHE
37.	2015B1A10540P	Sanchit Bajaj	Machin learning in chemical and bio systems engineering.	Dr. Abhishek Dhoble	CHE
38.	2015B2A10839P	Sneha Kumari	Renoval studies of flue gases (co2+sox+nox).	Dr. Smita Raghuvanshi	CHE
39.	2015B2A10871P	Krati Agrawal	Polymer-based nanocomposites.	Dr. Krishna C Etika	CHE
40.	2015B3A10646P	Neha	Cfd modelling of hollowfiber membrane based system for groundwater filtration	Dr. Somak Chatterjee	CHE
41.	2015B4A10481P	Swarnesh Ravi Jha	Mulliscale modeling of packed bed reactor using matlab & comsol of fwent.	Dr. Bhanu Vardhan Reddy K	CHE
42.	2015B4A10518P	Harshit Gupta	Feasibility of single use plastic	Dr. Suresh Gupta	CHE
43.	2015B4A10633P	Shubham Bhatt	Safety management in press urised water reactor (pwr) using machine learning	Dr. H K Mohanta	CHE
44.	2015B5A10417P	Shubham Jain	Fault detection in multi phase flow facility using machine learning	Dr. Ajaya Kumar Pani	CHE
45.	2016A1PS0537P	Damanjot Singh	Computational fluid dyamics to estimate life of ground water filtration nanotubes.	Dr. Somak Chatterjee	CHE
46.	2016A1PS0811	Aditya Pai K	Fault detection in multiphase flow systems	Dr. Ajaya Kumar Pani	CHE
47.	2016A1TS0559P	Debshankar Ghosh	Cfd simulations of laminar-to-turbulent transition in biological systems	Dr. Joshua Brinkerhoff	CHE
48.	2015B2A80807P	Harsh Vardhan Awasthi	Development of efficient ternary metal chalcogenide photoelectrodes for photoelectrochemical waer splitting.	Dr. Mrinmoyee Basu	CHEM
49.	2015B2A80886P	Kumar Sarthak	Synthesis of smart gels exhibiting thermo switchable behaviour and study of its application in catalyst template.	Dr. Madhushree Sarkar	CHEM
50.	2015B2A30841P	Ujjwal Panda	Matric isolatin spectroscopy of astrochemically significant molecules.	Dr. Shamik Chakraborty	CHEM
51.	2015B2A40889P	Umang Simoniha	Conversion of co2 to useful chemicals with the help of mcm based heterogenous catalysis.	Dr. Saumi Ray	CHEM
52.	2015B2A40286P	Mudit Agarwal	Qualittive assessment of quanching change using dennify fuctional reactivity theory.	Dr. Ram Kinkar Roy	CHEM

S.No	BITS ID	Name	Topic	Supervisor	Department
53.	2015B1A20882P	Mavuluri Rithwik Venkat Ratnam	Synthesis and application of silica nanocpheres.	Dr. Bibhas Ranjan Sarkar	CHEM
54.	2015B2A10846P	Vaibhav Sharma	Cosseleting thermodynamic and kinetic aspects of a chemical reaction through dennify functional reactivity theory.	Dr. Ram Kinkar Roy	CHEM
55.	2015B2A20760P	Kuchibotla Sri Raghu Charan	Synthesis of organic based mechanoluniscent compound to help in structural health monitoring.	Dr. Inamur R Laskar	CHEM
56.	2015B2A40868P	Anshu Agrawal	Development of platform for computing molecular electronic integral.	Dr. Prashant U Manohar	CHEM
57.	2015B5A70350P	Soorya Rethinasamy	Compiling for quantum computers	Vandana Agarwal	CSIS
58.	2016A7PS0037P	Dev Arora	Design of computational intelligence for image processing	Lavika Goel	CSIS
59.	2016A7PS0073P	Shreyansh Chandak	Solve the scheduling problem in multicore processor for discrete speeds considering both state & dynamic power	Abhishek Mishra	CSIS
60.	2016A7TS0045P	Divesh Uttamchandani	Flow scheduling for qos realization	K Haribabu	CSIS
61.	2016A7TS0056P	Siddharth Sekhar Barpada	Supply chain in agriculture using blockchain	Amit Dua	CSIS
62.	2016A7TS0080P	Swarup N	Design of implementation of incremental algorithms for collecting consistent network	K Haribabu	CSIS
63.	2015B4A70342P	Vighnesh Hegde	Machine learning methods for footwear impression comparison	Martin Herman	CSIS
64.	2015B4A70407P	Nalin Mittal	Deep learning models for face recognition anti-spoofing in mobile phones	Carsten Sinz	CSIS
65.	2015B4A70436P	Achal Agarwal	High performance gpu based graph analytics	John Owens	CSIS
66.	2015B4A70454P	Vikram Waradpande	Representation learning on graphs	Avishek Anand	CSIS
67.	2015B4A70557P	Prashant Rangarajan	Active learning for graph convolutional networks	Partha Pratim Talukdar	CSIS
68.	2016A7PS0018P	Girinath R	Tool-tissue interaction recognition in surgical videos	Nicolas Padoy	CSIS
69.	2016A7PS0026P	Akankshya Mishra	Activity recognition using deep learning	Francois Bremond	CSIS
70.	2016A7PS0079P	Mehta Aashay Pinkesh	Ai for brain training	Falk Lieder	CSIS
71.	2016A7PS0088P	Nischay Agarwal	Implementation of bundle protocol for riot os	Ing. Lars Wolf	CSIS
72.	2016A7PS0110P	Sankalp Sanjay Sangle	Monitoring and prediction of faults in networks using network-wide telemetry	Chan Mun Choon	CSIS
73.	2016A7PS0134P	Gautam Pathak	Memory layout visualisation tools for improved performance debugging in concurrent software	Trevor Brown	CSIS
74.	2016A7TS0052P	Karabee Batta	Large scale quantum networks	Daniel Oblak	CSIS
75.	2016A7PS0098P	Anuvind Bhat	Optimization at the compute & storage layer for performing large-scale data analytics in the cloud	Muthian Sivathanu	CSIS
76.	2015B2A70842P	Ritaban Roy	Reliable, sewne and privacy preserving multi-biometric person authentication	Antitza Dantcheva	CSIS
77.	2015B4A70777P	Vaishnavi Bhargava	A study about explainability and fairnes in knowledge discovery and algorithmic decision making	Miguel Couceiro	CSIS
78.	2016ABPS0676P	Saharsh Agarwal	Pipe climbing prototype with load carrying ability.	Avinash Gautam	CSIS / ME
79.	2015B3A10537P	Patro Divyam Ashok	Participation in global value chains and economic growth	Rahul Arora	ECO & FIN
80.	2015B3A10642P	Aayush Arya	Trade liberalisation and indian economic growth	Rahul Arora	ECO & FIN
81.	2015B3A10662P	Rohit Gaur	Impact of signing regional	Rahul Arora	ECO & FIN

S.No	BITS ID	Name	Topic	Supervisor	Department
			comprehensive economic partnership to india		
82.	2015B3A30452P	Rahul Motiyani	Digital transformation and sustainability	A K Giri	ECO & FIN
83.	2015B3A30572P	B Tirumala	Impact of cyptocurrency on global economy	N V M Rao	ECO & FIN
84.	2015B3A30622P	Mohit Jaiswani	Supply chain design in the agricultural sector to reduce poverty	Satyendra Sharma	ECO & FIN
85.	2015B3A70472P	Saurabh Gupta	Critical analysis of disruptive nature fintech companies: impact analysis of indian companies	A K Vaish	ECO & FIN
86.	2015B3A70834P	Prakhar Srivastava	Analysis and improvisation of techniques used to asses transportation logistic management using ml and ai	Satyendra Sharma	ECO & FIN
87.	2015B3A80544P	Jammula Priyesh	Interdependance between climate change, tourism and environment in india	Geetilaxmi Mohapatra	ECO & FIN
88.	2015B3A80563P	Shubham Kumar	Analysis of underpricing of indian initial public offering	Rajan Pandey	ECO & FIN
89.	2015B3A70626P	Anirudha Kemtur	Using machine learning and other statistical techniques to model human cognition	Dr Karim Jerbi	ECO & FIN
90.	2015B3A80463P	Akshay Jhanwar	Design and development of credit scoring model using non-financial data for cred: forecasting creditworthiness of individual borrowers	Mr. Rahul Harkisanka	ECO & FIN
91.	2015B3A80555P	Akshaj Kasliwal	Crowd logistic and its impact on logistic industry	Satyendra Sharma	ECO & FIN / MGTS
92.	2016A8PS0407P	Bhawana Jain	Development of a resonance based thickness sensor for ferromagnetic sheets	Dr. Sujan Yenuganti	EEE / INSTR
93.	2015B3A30471P	Shubham Bhandari	Role of big data analytics in intelligent farming and its economies	Dr. H D. Mathur	EEE / INSTR
94.	2016A3PS0163P	Pranav Saraswat	Empirical qanalysis of selected economic and public policy evaluations in india	Dr. Sujan Yenuganti	EEE / INSTR
95.	2015B5A30547P	Naren	Securing drone communications using physically unclonable functions	Dr. Vinay Chamola	EEE / INSTR
96.	2015B5A80499P	Anubhav Elhence	Securing v2g communications using physically unclonable functions (puf)	Dr. Vinay Chamola	EEE / INSTR
97.	2015B2A80865P	Apurva Surya	Learing methods in hevc videos.	Dr. Devesh Samaiya	EEE / INSTR
98.	2016A3PS0217P	Het Shah	Rf microelectronics (lan design) & vlsi architecture.	Dr. Chandra Shekar	EEE / INSTR
99.	2015B5A30581P	Gokul Srinivassan	Energy efficient swipt policies for cooperative aaf - daf systems	Dr. Sainath Biragunta	EEE / INSTR
100.	2015B5A30429P	Harsh Grover	Application of blockchain and machine-learning in internet of things.	Dr. Dheerebdra Singh	EEE / INSTR
101.	2016A3PS0215P	Nishad Sahu	Application of blockchain in unmanned aerial vehickes (uavs)	Dr. Vinay Chamola	EEE / INSTR
102.	2015B4A80573P	Ayush Bansal	Internet of thins application for vehiculan networks.	Dr. Dheerebdra Singh	EEE / INSTR
103.	201B4A30564P	Mohit Jain	Experiment s on hearing based techniques for video analytics	Dr. Devesh Samaiya	EEE / INSTR
104.	2016A3PS0192P	Nikhil Khandelwal	Developing techniques for super resolution of images (computer vision)	Dr. Meeetha V. Shenoy	EEE / INSTR
105.	2016A3PS0184P	Aditya Sodhani	Advanced visi architecture forarm based processors	Dr. Chandra Shekar	EEE / INSTR
106.	2015B5A30384P	Mitul Sharma	Basing exploration for low power memories for embedded application	Dr. Nitin Chaturvedi	EEE / INSTR
107.	2015B5A30742P	Ritik Jain	Implementation of cnn on fpga	Dr. Karri Babiu Ravi Teja	EEE / INSTR
108.	2015B2A30682P	Utkarsh Bansal	Design and control of a bidirectional	Dr. Hari Om Bansal	EEE / INSTR

S.No	BITS ID	Name	Topic	Supervisor	Department
			dc/dc converter for an electric vehicle.		
109.	2015B3A80546P	Manan Mehta	Magnetoresistance investigation in semiconductor nanostructures	Dr. Sanjeev Kumar	EEE / INSTR
110.	2016A3PS0702P	Abhiroop Bhattacharjee	Liberty characterization for reconfigurable-fets	Dr. Akash Kumar	EEE / INSTR
111.	2016A3PS0317P	Akshit Goel	Design and evaluation of throughput - oriented and latency-tolerant accelerators on fpga.	Dr. Paolo Lenne	EEE / INSTR
112.	2016A8PS0424P	Saksham Consul	Cognitive tutors and prostheses for improving human decision- making.	Dr. Falk Lieder	EEE / INSTR
113.	2016A8PS0264P	Vignesh Nagarajan	Exporing low -power architectures for high-dimensional computing	Dr. Akash Kumar	EEE / INSTR
114.	2016A3PS0193P	Ashutosh Sancheti	Security provisioning in internet of things	Dr. Biplab Sidar	EEE / INSTR
115.	2015B5A80442P	Ishaan Ahuja	Analysis of n-dimensional space for high energy physics tasks	Dr Maritin Vala	EEE / INSTR
116.	2016A8TS0278P	Prajit Dhara	Design and analysis of a quantum repeater scheme using Gottesman-Kitaev-Preskill encoded qubits.	Dr. Saikat Guha	EEE / INSTR
117.	2015B4A80567P	Tanay Agarawal	Mobelling human perception and attention using neural network.	Dr. Sridharan Devarajan	EEE / INSTR
118.	2016A3PS0228P	Abhishek Jain	Optical trapping of nanoparticles using nanophotonic structures.	Dr Thomas F Krauss	EEE / INSTR
119.	2016A3TS0153P	Chinmay Pandhare	Asynchronous transcription & summarization of conversations using ars.	Dr. Chng Eng Siong	EEE / INSTR
120.	2016A3PS0235P	Niranjan Arun Rao	Bidirectional control of robot using wearable sensor and haptic feedback.	Dr. Harshavardhan Kikkeri	EEE / INSTR
121.	2016A8TS0334P	Pratyush Manocha	Modeling of grapheme based hot electron transistor.	Dr. Chandini Usha	EEE / INSTR
122.	2016A3PS0261P	Ardra Ayyappath	Codes for storage applications.	Dr. Navin Kashyap	EEE / INSTR
123.	2016A3PS0261P	Umang Garg	Neuromorphic vision sensor.	Dr. Abhronil Sengupta	EEE / INSTR
124.	2016A3PS0175P	Sahil Mehra	Human geometry estimation using monocular images	Dr Venkatesh Babu	EEE / INSTR
125.	2016B2A30792P	Tanuj Kumar	Thread based transistor for sensing and flexible analog circuit design	Sameer Sonkusale	EEE / INSTR
126.	2015C2TS0558P	Nikhil Chandrashekar Bhalerao	Philosophy in films: a study of selected works of philosophical directors at global level	Prof. Devika	HSS
127.	2013B4PS0663P	Sneh J Shah	Mathematical modelling and analysis of physiological systems	Dr. Bhupendra Kumar Sharma	MATH
128.	2014B4A10648P	Bhavesh S. Navandar	Design and applications of neural network algorithms for the field of fractional calculus and use the same to solve fractional integrals	Dr. Trilok Mathur	MATH
129.	2015B4A10466P	Kaustubh Sathe	Meshless finite element methods for pdes.	Dr. Sangita Yadav	MATH
130.	2015B4A20684P	Koustubh Gupta	A survey of optimization techniques for floor-planning.	Dr. Krishnendra Shekhawat	MATH
131.	2015B4A30464P	Aditya Khandelwal	Numerical methods for solving partial integro-differential equations	Dr. Rajesh Kumar	MATH
132.	2015B4A30523P	Saurabh Mittal	Tsunami interevent time distribution	Dr. Sumanta Pasari	MATH
133.	2015B4A30630P	Nishit Garg	Applications of mathematics in geodesy	Dr. Sumanta Pasari	MATH
134.	2015B4A30663P	Puneet Singh	A study of discrete-time retrial queues with vacations	Dr. Rakhee	MATH
135.	2015B4A40702P	Manthan Goyal	Fluid structure interaction problem of blood flow in a brain artery	Dr. Sangita Yadav	MATH
136.	2015B4A70625P	Anamya Agarwal	Development of graph theoretic tools for rectangular dualization	Dr. Krishnendra Shekhawat	MATH
137.	2015B4A80580P	Aayushmaan Thakur	A study of fuzzified nature-inspired optimization techniques	Dr. Chandra Shekhar	MATH

S.No	BITS ID	Name	Topic	Supervisor	Department
138.	2015B4A80596P	Aditya Rathi	Optical character recognition	Dr. Rakhee	MATH
139.	2015B4A80638P	Pragatiasudani	Machine learning algorithms for geostatistical data analysis	Dr. Sumanta Pasari	MATH
140.	2015B4A80686P	Sadrishya Agrawal	Analysis of gps data using various time series methods	Dr. Rakhee	MATH
141.	2016B4TS0957P	Priyanka	The distribution of primes	Dr. Divyum Sharma	MATH
142.	2016A4PS0405P	Pavan R	Isogeometric analysis of laminated structures	Gaurav Watts	ME
143.	2015B3A40513P	Devesh Yadav	Life cycle assessment and demerd estimation of valve added products from steel slag	Srikanta Routroy	ME
144.	2016ABPS0671P	Chinta Karteeka Naidu	Indentification of critical success factors for cirauar economy through reverse legistics prespective	A.K.Digalwar	ME
145.	2016ABPS0873P	Sajja Hari Kesav	Supply chain management cultural implications on supply chain performance	Srikanta Routroy	ME
146.	2016A4PS0304P	Mallya Akshat Satyanarayan	Simulation and experimentation of phase change materials for spatial heating	P. Srinivasan	ME
147.	2016A4PS0378P	Shyamsundar P.I.	Vision based manipulation of industrial robots	B.K.Rout	ME
148.	2015B3AB0568P	Kartik Tyagi	Application of lean tools ano techniques for productivity improvement	A.K.Digalwar	ME
149.	2015B4AB0542P	Mayank Raj	E-waste management	M.S.Dasgupta	ME
150.	2016ABTS0877P	Jayant Singh Rathore	Application of mcdm techniques in lean practices	A.K.Digalwar	ME
151.	2015B5A40582P	K.Pavithran	Sports movement kinematics data analysis & interpretation using computers	M.S.Dasgupta	ME
152.	2015B4AB0697P	Mayank Saraogi	Neuroelectronic interface.	Venkatesh K.P.Rao	ME
153.	2016A4PS0284P	V.G.V.Rama Jaswanth	Corrasian & thermal stresses study of high-tempereture energy-storage materials.	P.Srinivasan	ME
154.	2015A4TS0444P	Shubhankar Abhijit Kulkarni	Phase change material for hvac application.	M.S.Dasgupta	ME
155.	2016A4PS0221P	Adil Khan	Computational simulation of collagen fiker reinforced extra cellular matrix and its interaction with tumer spheroids	Shyam Sunder Yadav	ME
156.	2015B4A40360P	Hitesh Raghuvanshi	Design of gonal logistics in post hervest supply chain.	Srikanta Routroy	ME
157.	2015B1A40694P	Animesh Jain	Rotor systems and associated gyroscopic force, its effects and applications.	M.S.Dasgupta	ME
158.	2016ABTS0700P	Vinayak Aggarwal	Supply chain of direct-to-consumer	Satyendra K Sharma	ME
159.	2015B3A40610P	Amit Agrawal	Roujte optimization techniques and delivery performance: an overview	Satyendra K Sharma	ME
160.	2015B1A40880P	Ayushman Dwivedi	Analytical and finite element modeling of thermoelastic behavior of skin	Jitendra S.Rathore	ME
161.	2015B2A40890P	Surakshit Soni	Development of forecasting welding for perishable products art consumption paint	Srikanta Routroy	ME
162.	2015B3A40539P	Vibhas Jaiswal	Industry 4.0: "smart maintenance" predictive maintenance on banknote processing systems	Heidi Schneider	ME
163.	2015B2A40837P	Mohit Sidhwani	Ideation and creation of an indigenou, end-to-end credit system	Ashray Iyengar	ME
164.	2015B2AB0819P	Vishnu Madhusudan	Policymaking in industry 4.0 as a part of india's national industrial policy.	Ira Saxena	ME
165.	2016ABTS0854P	Kriti Rathi	Rethinking of design spaces in comosite structures.	Arlimdo Silva	ME

S.No	BITS ID	Name	Topic	Supervisor	Department
166.	2015B5A40758P	Divya Rathore	Advanced diagnostics to determine li-ion cell failure mechanisms.	Jeff Dahn	ME
167.	2015B5A40621P	S Kaushik Srinivasan	Enhancing operational excellence and standardizing service level offerings for over 10000+ retail outlets of one of india's largest oil & gas players	Jay Agrawal	ME
168.	2016ABPS0890P	Aryan Sharma	Broad area-hydrodynamics simulations and large scale simulations (magneto-hydro) inplupics phenomena (like stars etc.)	Luca Baiothi	ME
169.	2015B1A40732P	Gokavarapu Sai Sirish	A microfluidic platform for early diagnosis of cancer	L.T. Lim	ME
170.	2015B3A40483P	Devanshu Tak	Cad assembly visulalization in ar	Jyoti Anup Bishnoi	ME
171.	2015B5AB0504P	Ishan Dave	Dynamic stability of laminated structures using finite element method	Gaurav Watts	ME / PHY
172.	2015B3A40615P	Aman Gupta	Study of reverse supply chain in medical indusy and development of strategies to tackle problem	Satyendra K Sharma	MGTS / ME
173.	2016A5PS0367P	Jasveer Singh	Study the effect of formulation variables and process parameters on characteristics of immediate release	Dr. Gautam Singhvi	PHA
174.	2016A5PS0855P	Yogesh Raut	Assesment and culture studies of bryophytes and their therapeutic effects	Dr. Atish T Paul	PHA
175.	2016A5TS0591P	Samadrita Pal	Formulation and evaluation of gold nanoparticle of mucuna pruriens extract for treatment of parkinson disease	Prof. Rajeev Taliyan	PHA
176.	2016A5TS0538P	Aditi Singh	Investigating the dependence of ultrasonication mediated cancer cell killing on cell cycle	Dr. Michael Patrick Sheetz,	PHA
177.	2016A5TS0734P	Sreemoyee Ghosh	Targeted delivery of biomacromoecluces such as protein, peptide and nucleic acid	Prof. Shyh-Dar-Li	PHA
178.	2014B5A10832P	Vikash Singh	Particle production in heavy ion collisions.	Madhukar Mishra	PHY
179.	2015B5A30708P	Tanya Aggarwal	Neutrino mass hierarchy and oscillations	Madhukar Mishra	PHY
180.	2015B5A30420P	Satyam Bhaskar	Study of quark gluon plasma at high matter density	Madhukar Mishra	PHY
181.	2016B5TS0965P	Divya Pant	Ionic and electronic transport in li-nasicon based nanocomposites	Anshuman Dalvi	PHY
182.	2015B5A20470P	Divyansh Mangal	Studies in advanced classical field theory	R Vaidya	PHY
183.	2015B5A40750P	Rishav Utkarsh	Studies in quantum information and computation	R R Mishra	PHY
184.	2015B5A10737P	Abhisneh Singh	Electro optic effect of liquid crystals	Manjuladevi V.	PHY
185.	2015B5A40747P	Saurav Shakti Borah	Epoch : partical-in-cell approach to plasma physics	Amol Holkundkar	PHY
186.	2015B5A40559P	Deshmukh Sarvesh Sandeep	Free electron lasers	Amol Holkundkar	PHY
187.	2015B5A10755P	Prakhar Kapoor	Relativistic hydrodynamics in heavy ion collisions: general aspects and development	Amol Holkundkar	PHY
188.	2015B5A40670P	Akarsh Rastogi	Simulation and theoretical work on surface plasmon resonance and applications in sensing	R K Gupta	PHY
189.	2015B5A20681P	Aman Kumar Rana	Designing of nano cluster/ nano-tube, useful to absorb pollutant elements.	D. Bandyopadhyay	PHY
190.	2015B5A20751P	Jinna Harshith Reddy	Identification of crystal lattices using microwave diffraction.	D. Bandyopadhyay	PHY
191.	2015B5A20733P	Jagdeesh Peesa	Identification of crystal lattices (bcc, hcc,	D. Bandyopadhyay	PHY

S.No	BITS ID	Name	Topic	Supervisor	Department
			fcc, scc) using microwave diffraction.		
192.	2015B5A10440P	Udayveer Singh Andotra	Physics of compact astrophysical objects.	Bswanath Layek	PHY
193.	2015B5A30415P	Deepak Vasudevan	Structure formation in the reionization era	T. G. Sarkar	PHY
194.	2015B5A10583P	Mukul Rana	Many body effects in ms simulation of spectroscopy	R. Choubisa	PHY
195.	2016B5PS0588P	Abhishek Pandey	Foundational aspects of quantum mechanics	Tejinder Pal Singh	PHY
196.	2015B5A70394P	Joy Mukherjee	Design, implementation and testing of a new experimental control system for an optical lattice apparatus.	Sean Hodgman	PHY
197.	2015B5A30467P	Sambit Panda	Search for anisotropic stochastic background using regularized deconvolution in data from gravitational wave detectors.	Sanjit Mitra	PHY
198.	2015B5A70191P	Sarvesh Srinivasan	Topological order in condensed matter systems	Vijay Shenoy	PHY
199.	2015B5A70418P	Biswajit Biswas	Dissertation unsupervised methods for classification of dark matter substructure in strong lensing images	Sergei V. Gleyzer	PHY
200.	2015B5A40532P	Siddharth Singh	Inter-facial losses in superconducting z-mon qubit.	R R Mishra	PHY / ME
SEMESTR-I 2020-21					
1.	2016B1A20950P	Bhaskar Rokana	Studying the distribution of saponin producing plants in india	Pankaj Kumar Sharma	BIO
2.	2016B1A20188P	Kanishk Rajvanshi	Understanding the functioning of protein docking software packages and performing test cases with phytochemical ligands.	P R Deepa	BIO
3.	2016B1A30936P	Shubham Raj	Using graph theory for analysing various biological networks	Shibasish Chowdhury	BIO
4.	2016B1A70939P	Kumar Deovrata	Understanding the role of ezh2 and its associated h3k27me3 in chronic kidney disease	Syamantak Majumder	BIO
5.	2016B1A20937P	Ram Karthik Reddy	Covid-19 structural comparison	Uma S Dubey	BIO
6.	2016B1A10948P	Jatin Arora	Milk protien folding and docking with respect to cancer.	Uma S Dubey	BIO
7.	2016B1A40945P	Ayush Kumar Bothra	Understanding the role of ezh2 and its associated h3k27me3 in chronic kidney disease.	Syamantak Majumder	BIO
8.	2016B1A20940P	Aryan A Pareek	Analysis of protein folding and docking software tools with test cases	P R Deepa	BIO
9.	2016B1A10195P	Sohit Aggarwal	Analysis of p.falciparum transcriptome to understand development of plasmodium in host cells	Shilpi Garg	BIO
10.	2016B1A10861P	Tanvi Gupta	Immune system studies using analytical tools	Jaykrishnan C	BIO
11.	2016B1A40757P	Arpit Mittal	Integrating behavior based decisions into frenet frame planner	K Madhava Krishna	BIO
12.	2016B1A20292P	Modali Sairam Santosh	Eia case study in construction of a highway (nganglam-dewathang)	Ajit Pratap Singh	CE
13.	2017A2TS0857P	Akshay Sharma	To study and improve the scenario of solid waste management in india	Anupam Singhal	CE
14.	2016B1A20922P	Deepanshu Aggarwal	Management of solid waste using life cycle analysis.	Ajit Pratap Singh	CE
15.	2017A2TS0737P	Aamil Ashutosh Rastogi	Modification and optimization of water supply system in a secondary city like jaipur	Rajiv Gupta	CE

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16.	2016B3A20553P	Ankur Jain	Doklam to galwan: revisiting india-china border dispute	Veena R	CE
17.	2016B4A20616P	Ayush Srivastava	Image based structural damage detection using convolution neural networks and transfer learning	Ajit Pratap Singh	CE
18.	2015B5A20470P	Divyansh Mangal	Pedestrian wind comfort analysis of bits pilani campus	Anupam Singhal	CE
19.	2016B1A20755P	Sanidhya Kumar Pandey	Characterisation and qualitative gradation of municiple solid waste city compost	Anupam Singhal	CE
20.	2017A2TS0833P	Kunal Rastogi	Simulating the impact of industrialisation on ground water quality in national capital region using comsol multi-physics and dpsir framework.	Shibani Khanra Jha	CE
21.	2016B2A20820P	Divyansh Kavadia	Seismic performance of a reinforced concrete structure	Muthukumar G	CE
22.	2017A2TS0963P	Kushal Singhi	Non-linear seismic analysis of tunnels	Nishant Roy	CE
23.	2017A2TS0821P	Shubham Premprakash Shukla	To improve the scenario of water and wastewater treatment in india.	Anupam Singhal	CE
24.	2017A2TS0856P	Priyank Godhat	Finite element analysis of functionally graded composite beam	S B Singh	CE
25.	2016B1A20906P	Hardik Maheshwari	Optimisation of use of recycled aggregates using mathematical tools.	Ravi Kant Mittal	CE
26.	2017A2TS0785P	Bhanu Pratap Singh	Life cycle analysis of infrastructure systems	Muthukumar G	CE
27.	2016B5A20738P	Vaidant Agrawal	Intelligent transport system (its)	S N Patel	CE
28.	2017A2TS0066P	Sumedha Koul	Study on the seismic behavior of tunnels under varied conditions	Nishant Roy	CE
29.	2016B1A20265P	Aditya Vikram	Improving geotechnical properties of soil by waste material	Ravi Kant Mittal	CE
30.	2017A2TS0919P	Suryansh	Study on the in-plane behaviour of masonry infill walls	Dipendu Bhunia	CE
31.	2017A2TS0876P	Vinay	Performance of masonry infill wall subjected to out-of-plane loading.	Dipendu Bhunia	CE
32.	2017A2TS0708P	Amisha Srivastava	Life cycle assessment and its implications	Anshuman	CE
33.	2016B4A20603P	Mayank Prasad	A study on smart city development.	Ajit Pratap Singh	CE
34.	2017A2TS1017P	Siddharth Karandikar	Bituminous pavement construction in india	Mukund Lahoti	CE
35.	2017A2TS0862P	Abhishek Kumar	Fire resistant design	Muthukumar G	CE
36.	2016B5A20663P	Vishvadiya	Site selection for wildlife conservation within bits campus	Anupam Singhal	CE
37.	2016B3A20577P	Priyadarshi Nihal	Triaxial response of fly ash mixed pilani soil based on direct shear test results	Kamalesh Kumar	CE
38.	2017A2TS0956P	Manglunia Rishabh Rajkumar	Application of artificial neural network in rock mechanics stability problems	Nishant Roy	CE
39.	2017A2TS0895P	Aniket Singh	To understand importance of seismic and fire scenarios.	G.Muthukumar	CE
40.	2017A2TS0960P	Paramtap Lal	Structural dynamics	Dr. Manish Kumar	CE
41.	2016B4A10490P	Chilakala Ravi Teja	Enhanced production of biodiesel using artificial neural networks and optimization techniques	Hare Krishna Mohanta	CHE
42.	2016B2A10880P	Pratyush Khandelwal	Simulation of thermochemical process conversion of biomass using matlab	Sheth Pratik N	CHE
43.	2017A1TS0732P	Aman Goyal	Kinetic studies for bio mitigation of carbon dioxide using bacterial species.	Smita Raghuvanshi	CHE
44.	2016B5A10717P	Jays Jose Thomas	Designing anaerobic digester for biogas production	Amit Jain	CHE
45.	2016B2A10852P	Som Choudhary	Modeling ,simulation and control of fluidized-bed fermenter	Hare Krishna Mohanta	CHE

S.No	BITS ID	Name	Topic	Supervisor	Department
46.	2016B1A10915P	Danish Nayyar	Fault detection and diagnosis using machine learning	Ajaya Kumar Pani	CHE
47.	2017A1TS0787P	Abhinav Dhaka	Impact of foams on food quality, preparation	P Chattopadhyay	CHE
48.	2016B1A10923P	Aditya Pramod Patil	Modelling and simulation of solid waste management solutions	Smita Raghuvanshi	CHE
49.	2017A1TS0041P	Isha Dogra	Evaluation of mixed matrix membranes in ionic contaminant removal	Somak Chatterjee	CHE
50.	2016B4A10589P	Sumeet Kumar Singh	Machine learning and time-frequency analysis in signal processing and simulation for automatic detection of process using applied wavelet analysis	Hare Krishna Mohanta	CHE
51.	2016B2A10884P	Manu R. Srivathsa	Exploring the use of artificial intelligence and machine learning in drug synthesis	Prof Bhaskar Das	CHE
52.	2017A1TS0645P	Saksham Sinha	Carbon capture and utilisation using waste-based materials	Prof. Colin D. Hills	CHE
53.	2017A1TS1151P	Pratik Jaideep Potdar	Developing a machine learning model to predict the performance of a heterogeneous catalyst and a reactor	Dr. Enrico Martinez	CHE
54.	2015B2A30847P	Parikshit Singh Shaktawat	Drug design and synthesis studies	Paritosh Shukla	CHEM
55.	2016B2A30776P	Abhas Gupta	A computational study of ground and excited state properties of aie active organic molecules.	Ram Kinkar Roy	CHEM
56.	2014B2A30708P	Deepak Patel	Metal complexes as drugs and therapeutic agents	Ajay Kumar Sah	CHEM
57.	2015B2AB0335P	Arjun Maini	Analysis of laminated structures under the study of computational solid mechanics	Gaurav Watts	CHEM
58.	2016B2AB0836P	Kapil Gupta	Bodipy-based molecules for dye-sensitized solar cells	Dalip Kumar	CHEM
59.	2016B2A10695P	Pavitra Gautam	Virtual chemistry lab	Bharti Khungar	CHEM
60.	2016B2A30894P	Utkarsh Tripathi	Understanding and designing organic/inorganic oximetry sensors to gauge blood oxygen levels, heart rate and other physiological parameters important for covid-19	Dalip Kumar	CHEM
61.	2015B2A20785P	Kavish Gupta	Catalytic chemistry of lanthanides	Ajay Kumar Sah	CHEM
62.	2016B2A30680P	Shivani Singh	Analyzing the architecture of the internet of nano-things	Sai Sessa Chalapathi Gattupalli	CHEM
63.	2016B2A40786P	Sitakanta Mohapatra	Studies in deep eutectic liquids and other alternative solvents for green chemistry applications	Bibhas Ranjan Sarkar	CHEM
64.	2016B2A30857P	Aditya Rustagi	Detection of diabetic retinopathy and determining early onset	Soul Lee	CHEM
65.	2016B2A20834P	Rawal Kumar Singh	Docking study mediated exploration of binding interaction of cyclometalated iridium(iii) complexes with proteins	I R Laskar	CHEM / BIO
66.	2016B1A70822P	Rohan Kela	Practical counter-measures in attack fault maintenance trees.	Rajesh Kumar	CSIS
67.	2017A7TS0150P	Abhishek Ashwanikumar Sharma	Sustainable and scaleable architecture in mobile application development	Yashvardhan Sharma	CSIS
68.	2017A7TS0161P	Kushagra Raina	Prediction of disease severity in diabetic retinopathy patients.	Kamlesh Tiwari	CSIS
69.	2016B4A70580P	Salmaan Shahid	Integer factorization	Abhishek Mishra	CSIS
70.	2017A7TS1179P	Asrita Venkata Mandalam	Arabizivec: a set of arabizi word embedding models for informal arabic sentiment analysis	Yashvardhan Sharma	CSIS
71.	2016B5A70144P	Siddhant Singh	Practical counter measures in attack fault maintainance tree	Rajesh Kumar	CSIS

S.No	BITS ID	Name	Topic	Supervisor	Department
72.	2016B5A70590P	Anwesh Bhattacharya	Exploring chaos theory in optimization and machine learning with applications in galaxy classification	Dr. Mousumi Das	CSIS
73.	2017A7TS1174P	Praveen Ravirathinam	Development of novel machine learning algorithms to analyze data from earth-observing satellites to monitor changes in land cover on a global scale	Vipin Kumar	CSIS
74.	2017A7TS0093P	Ayush Jain	Learning grounding from visual cues - combining information from language and visual data for performing complex tasks.	Prof. Katerina Fragkiadaki	CSIS
75.	2017A7TS1196P	Divyam Goel	Hierarchical clustering of high-dimensional data	Dr. Narendra Ahuja	CSIS
76.	2017A7TS0040P	Shaily Bhatt	Decoding transformer-encoder models: a systematic study on how bert-like models work.	Dr. Sunayana Sitaram	CSIS
77.	2016B3A70492P	Priyanka Verma	Human computer interaction techniques to investigate user experience : a privacy and security perspective	Dr. Sameer Patil	CSIS
78.	2017A7TS1195P	Anirudh Srinivasan Chakravarthy	Video object segmentation	Dr. Hanspeter Pfister	CSIS
79.	2017A7TS1172P	Roshan Roy	Video instance segmentation in long-term, cross-scene shots.	Prof. Hanspeter Pfister	CSIS
80.	2017B3TS1202P	Rahul Bansal	Credit risk analysis and modelling	Arun Kumar Vaish	ECO FIN
81.	2016B3A20561P	Aman Agrawal	Identification of new factors for predicting the stock market during the covid-19 era. (title subject to change based on further discussion with the professor)	Byomakesh Debata	ECO FIN
82.	2016B3A70532P	Aviral Sethi	Ai for finance: news article/document summarization to save time allowing for effective and efficient investment decisions	Rajan Pandey	ECO FIN
83.	2016B3A70501P	Harshavardhana Shrirup	Predicting time taken by economies to recover from disasters	N V Muralidhar Rao	ECO FIN
84.	2017B3TS1203P	Isha Nagpal	Determinants of early movers in cross-border merger and acquisition wave in an emerging market: a study of indian firms	Krishna M	ECO FIN
85.	2017A3TS0328P	Kaustubh Ramkrishna Joshi	Study and implementation of signal processing algorithms for bearing fault diagnosis	Ankush Chandrakant Jahagirdar	EEE / INSTR
86.	2017A3TS0315P	Dhulipalla Krishna Swaroop	On-board image processing system for hsi data	Abhijit Rameshwar Asati	EEE / INSTR
87.	2016B2A30795P	Nemish Murawat	Development of deep learning models in order to model the genetic variation within the tree species.	Surekha Bhanot	EEE / INSTR
88.	2017A3TS1154P	Vishnu C Venkatesh	Blockchain for internet of vehicles	Vinay Chamola	EEE / INSTR
89.	2017A8TS0504P	Shubham Aggarwal	Ambient energy harvesting using piezo electric sensors	Yenuganti Sujan	EEE / INSTR
90.	2017A3TS1159P	Nihal Singh	Research and development in the area of mmwave radar 4-d imaging with design, verification, and characterization of a prototype.	Mr. Sumeer Bhatara	EEE / INSTR
91.	2016B3A30472P	Manav Kaushik	Speech analysis to determine age, gender and other speaker information using natural language processing and deep learning	Prof. Chng Eng Siong	EEE / INSTR
92.	2017A8TS0405P	Simran Sehgal	Speaker diarization with kalditoolkit	Prof Chng Eng Siong	EEE / INSTR
93.	2017A3TS0374P	Varun Kohli	Software attestation for internet of things (iot) devices	Dr. Biplab Sikdar	EEE / INSTR
94.	2017A3TS0340P	Shramay Palta	Analyzing the spread of flu virus using breathing data collected from spire tags.	Professor Ashok Agrawala	EEE / INSTR

S.No	BITS ID	Name	Topic	Supervisor	Department
95.	2017A8TS0277P	Sathe Omkar Dhananjay	Seamless authentication mechanisms	Prof. Tony Q.S. Quek	EEE / INSTR
96.	2016B5A80109P	Rohan Sanjay Mehta	Optical parameter extraction using terahertz time-domain-spectroscopy	Prof. Shriganesh Prabhu	EEE / INSTR
97.	2017A3TS1160P	Shrideep P Koparkar	Benchmarking energy consumption of neural network benchmarks on a vliw	Prof. Ahmed Hemani	EEE / INSTR
98.	2017A8TS0385P	Abhishek B Chakravarthi	Crowd count estimation and stampede prediction using machine learning.	Dheerendra Singh	EEE / INSTR
99.	2017A8TS1187P	Kesava Garikipati	Cost-benefit analysis of a product using total supply chain cost approach	Srikanta Routroy	EEE / INSTR
100.	2016B3A80494P	Aryan Kukreja	Market analysis and financial aspects of iot industry	Vinay Chamola	EEE / INSTR
101.	2016B2A80837P	Manuj Vashist	Applications of fast fourier transformation in medical instruments and applications	Abhijit Rameshwar Asati	EEE / INSTR
102.	2017A8TS0589P	Ananya Malhotra	Electrification of rural india from suitable renewable energy sources (res-e) based on nano-grids	Karunesh Kr Gupta	EEE / INSTR
103.	2016B4A80211P	Prajwal Bagga	Mems based glucose sensor	Yenuganti Sujan	EEE / INSTR
104.	2017A8TS0584P	Rishabh Jain	Named entity recognition	Abhishek	EEE / INSTR
105.	2016B2A20920P	Kunal Gupta	Business leaders strategy to cope up with cover-19	Pushp Lata	HUM
106.	2016B3A20524P	Akash Singh	China in africa- study on beijing consensus.	Veena R	HUM
107.	2017D2TS1232P	Rashi Yadav	Role of sustainable development indicators in envisioning smart cities in india.	Sailaja Nandigama	HUM
108.	2017A2TS0816P	Shivam Prateek	Green engineering and sustainable development	Sailaja Nandigama	HUM / CE
109.	2016B4A10598P	Deepak Agarwal	Analysis of ag/blood-mediated transport in curved annulus with exclusive nature of convective boundary.	B K Sharma	MATH
110.	2016B4A40506P	Mayank Dixit	Bocr analysis of crowd logistics and efficiency of crowd logistics in covid times.	B K Sharma	MATH
111.	2016B4A70509P	Nikita N. Singh	Application of recurrent neural networks in portfolio construction.	Trilok Mathur	MATH
112.	2016B4A70480P	Akriti Garg	Graph-theoretic and optimization tools for architectural layouts	Krishnendra Shekhawat	MATH
113.	2017B4TS0559P	Akash Palrecha	Interpretable image deblurring with applications for large-scale biomedical images	Rajesh Kumar	MATH
114.	2016B4A30596P	Vaibhav Kaushik	Study of digital business models in the mobility industry	B K Sharma	MATH
115.	2016B4A70622P	Satwadi Das	Graph-theoretic approach to dissected floorplans	Krishnendra Shekhawat	MATH
116.	2016B4A30478P	Mamarde Tanay Vijay	Survey of stochastic models for modelling epidemic	Anirudh Singh Rana	MATH
117.	2015B4A10680P	Saurav Lutawa	Study of vanadium oxide based energy efficient coating through molecular dynamics	Anirudh Singh Rana	MATH
118.	2016B4A10638P	Faizur Rahman	Method of fundamental solution for phase transition process	Anirudh Singh Rana	MATH
119.	2016B4A70322P	Satyavrat Sharma	Algebraic number theory with applications to diophantine equations	Divyum Sharma	MATH
120.	2015B4A10481P	Swarnesh Ravi Jha	Flow through assemblage of porous particles	Ashish Tiwari	MATH
121.	2016B4A70166P	Aaryan Kapoor	Molecular dynamics simulation of vanadium oxide	Anirudh Singh Rana	MATH
122.	2016B4A80568P	Prerna Baranwal	Development of feedback controlled 3-axis helmholtz coil	Kasturi Saha	MATH

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123.	2016B4A20637P	Sakshi Choudhary	Understanding of single server model of queues with switching costs	Mr. Aditya Kumar	MATH
124.	2017A4TS0499P	Vyom Chaturvedi	Economic and environmental impact of energy efficient systems• broad area: energy efficient systems, renewable energy	Suvanjan Bhattacharyya	ME
125.	2016B5A40051P	Barsode Ankur Narendra	Machine learning based molecular dynamics simulation of micro and nano scale fluid flows.	Aneesh A M	ME
126.	2016B1A40904P	Mehul Jain	Temperature prediction using machine learning in welding based additive manufacturing system	Prateek Kala	ME
127.	2017A4TS0185P	Mrudul Kulkarni	Numerical modelling of fuel cell operation.	Saket Verma	ME
128.	2016B2A40771P	Harshiel B Shah	Design of onion supply chain in india: issues, challenges and strategy	Srikanta Routroy	ME
129.	2016B5A40664P	Pullah Bhatnagar	Calculation of external cost of coal-based power plant based on years of working.	P Srinivasan	ME
130.	2016B4A40615P	Priyank Jairaj	Applying industry 4.0 tools in supply chain management.	Abhijeet Keshao Rao Digalwar	ME
131.	2017A4TS0138P	Arshnoor Singh Sachdeva	Numerical simulation of compressible flows with phase change using ansys framework.	Shyam Sunder	ME
132.	2016B4A40510P	Amol Dalal	Development of an exergy-based control strategy for low temperature combustion engines	Saket Verma	ME
133.	2016B1AB0944P	K Rohit Sharadwantha	Error compensation in the machining of a thin walled component	Tufan Chandra Bera	ME
134.	2015A4TS0566P	Kurapati Murali Krishna	Numerical simulations of the electro-wetting on a dielectric phenomenon	Shyam Sunder	ME
135.	2016B5AB0687P	Aditya Pola	Solving differential equations using a data driven approach	Girish Kant Garg	ME
136.	2016B5AB0706P	Swadhin Saraf	Modeling of skin friction due to various factors	Sharad Shrivastava	ME
137.	2016B5AB0711P	Hemant Vats	Cyber security in industry 4.0	Kuldip Singh Sangwan	ME
138.	2017A4PS0380P	Siddharth Goyal	Development of management strategies for business excellence	Abhijeet Keshao Rao Digalwar	ME
139.	2016B3A40315P	Siddhant Dwivedi	Analysing supply chain risks in indian construction industry	Srikanta Routroy	ME
140.	2016B1AB0946P	Divyam Rakesh	Development of an integrated framework of six-sigma, lean and agile manufacturing	Rajesh Prasad Mishra	ME
141.	2017ABTS0316P	Pranjal Singh	Aligning system transformation with employee well-being in lean manufacturing.	Rajesh P Mishra	ME
142.	2016B2A40878P	Anusatya Choudhary	Thermoeconomic analysis of refrigeration / heat pump system	Mani Sankar Dasgupta	ME
143.	2015B4A40693P	Manal Garg	Enablers and inhibitors in healthcare reverse supply chain	Satyendra Kr Sharma	ME
144.	2017ABTS0369P	Abhijeet Borole	Applications of machine learning in operations management(demand forecasting)	Abhijeet Keshao Rao Digalwar	ME
145.	2016B2A40792P	Ayush Wadhwa	Studying and aligning micro turner's supply chain and processes into a more sustainable nature	Rajan Babbar	ME
146.	2017A4TS0437P	Aishani Chakraborty	Computational modeling of optimization algorithms	Manbir Sodhi	ME
147.	2016B4A40493P	Saurav Shenoy P	Coarsening of ni-based superalloys	Prof. Abhik Choudhury	ME
148.	2017ABTS0957P	Ashutosh Bhatt	Analyzing startups in the agri-tech	Akansh Jain	ME

S.No	BITS ID	Name	Topic	Supervisor	Department
			sector, understanding their supply chains and suggesting them the best practices to implement by benchmarking them with supply chain practices of fmcg companies.		
149.	2016A4TS0412P	Deshmukh Paresh Ganeshrao	Designing closed supply chain loops for small brands, sustainably and affordably.	Satyendra Kr. Sharma	MGTS
150.	2016A1PS0742P	Rytham Garg	Covid 19 influenced risk global food supply chain	Satyendra Kr Sharma	MGTS
151.	2017A4TS0447P	Jyotiraditya Singh	Managerial economics of public sector decisions in india	Leela Rani	MGTS
152.	2017A5TS1114P	Kandregula Bhaskar	Designing and evaluation of nano formulation for drug delivery	Anupama Mittal	PHA
153.	2016A5TS0367P	Jasveer Singh	Application of natural polymer in drug delivery.	Gautam Singhvi	PHA
154.	2017A5TS1067P	M Hari Hara Nithin Reddy	Brain computer interface ornithopter drone.	S Murugesan	PHA
155.	2017A5TS1112P	Achalla Vaishnav Pavan Kumar	Formulation development and evaluation of pdt drug for treatment of skin cancer	Sunil Kumar Dubey	PHA
156.	2017A5TS1062P	Deyasini Datta	Nanocarrier preparations and study the effect of formulation and process variables on product characteristics.	Gautam Singhvi	PHA
157.	2017A5TS1111P	Yanamandala Nitheesh	Formulation development and evaluation of pdt drug for treatment of breast cancer	Sunil Kumar Dubey	PHA
158.	2016B5A40714P	Dhanush Tripathy	Numerical solution of maxwell equations	Madhukar Mishra	PHY
159.	2016B5A30686P	Rakshit Nanwani	Studies on superconductivity and its applications	Madhukar Mishra	PHY
160.	2017B5TS1207P	Shrishti Khicher	Statistical physics of rna folding	Navin Singh	PHY
161.	2016B5A70560P	Parth Misra	Application aspects of non-linear dynamics and chaos	Rakesh Choubisa	PHY
162.	2016B5A40681P	Hrithik Adhikari	Study on nanoparticles in liquid crystals	V Manjuladevi	PHY
163.	2015B5A80441P	Abhishek Chaturvedi	Study of photon interaction with the atomic targets	Rakesh Choubisa	PHY
164.	2016A3B50114P	Shantom Kumar Borah	Studies in the foundations of quantum mechanics and quantum information	Rashmi Ranjan Mishra	PHY
165.	2016B5A10650P	Himanshu Gupta	Scattering of twisted electron beam from the atomic and molecular targets	Rakesh Choubisa	PHY
166.	2016B5A10648P	Yash Goswami	Studies on physics of graphenes	Madhukar Mishra	PHY
167.	2016B5A80522P	Dhruv Malhotra	Study of star clusters using numerical simulations.	Kaushar Vaidya	PHY
168.	2016B5A80684P	Utsav Akhaury	Implementation of a penrose diagram module in python	Shreyas Bapat	PHY
169.	2016B5A40633P	Pratixan Sarmah	Effect of new jet substructure measurements on monte carlo event generator tunes	Deepak Kar	PHY
170.	2016B5A70634P	Rushi Jayeshkumar Babaria	Nlp based question and answer matching for effective faq ,chatbots.	Prof Eng Siong Chng	PHY
171.	2016B5A70607P	Manan Agarwal	Machine learning models of tess ffi lightcurves	Dr Michael Fausnaugh	PHY
172.	2016B5A70701P	Ankita Chakravarty	Quantum benchmarking of nitrogen vacancy centers in diamond.	Prof. Michel Pioro-Ladri�re	PHY
Dubai Campus					
SEMESTER-II 2019-20					
1	2015A7TS0198U	Mihir Prabhudesai	Machine Learning for Unstructured Data Analysis	Mr. Nandkumar	Computer Science
2	2015A7TS0171U	Keshav Maheshwari	Design and Implementation of Customer Targetted E-Commerce Using	Dr. Sujala Shetty	Computer Science

S.No	BITS ID	Name	Topic	Supervisor	Department
3	2015A7TS0142U	Ishan Shastri	Analyzing and Exploring Different Ledgers of Blockchain by Using Artificial Intelligence and Data Science Techniques	Dr. Santhosh Kumar	Computer Science
4	2015A7TS0328U	Shaleen Bengali	Deep Learning for Enhancing Smartphone Photography	Dr. S. Vadivel	Computer Science
5	2015A7PS0273U	P Sai Sudharshan	A Framework for Distributed Storage, Indexing and Retrieval for Document Centric XML	Dr. B. Vijayakumar	Computer Science
6	2015A7TS0403U	Vanshika Sharma	Mobile Robot Path Planning and Area Mapping: Feature Extraction on LiDAR	Dr. Santhosh Kumar	Computer Science
7	2015A7TS0302U	Rohit Beriwal	Analysis of Quantum Circuit with Faulty Gates	Dr. Angel Arul Jothi	Computer Science
8	2015A3TS0141U	Indraneel Patil	Real-Time Intelligent Path Planning in the 3D Workspace for the Robotic Control of a 6 DOF AMM 1410 Industrial Manipulator	Dr. V. Kalaichelvi	Electrical & Electronics
9	2015A4TS0452U	Gayathri Hariharan	A Micromechanical Model to Predict Elastic/Viscoelastic Behavior of Syntactic Foams	Dr. Priyank Upadhyaya	Mechanical
10	2015A4TS0433U	Zoheb S. Razak	Optimization of Transpiration Cooled Gas Turbine Blades at Maximum Temperatures	Dr. Shashank Khurana	Mechanical
11	2015A4TS0293U	Rishabh Aggarwal	Study and Analysis of Polymer Based Extrusion Molding Machine	Dr. C. Perisamy	Mechanical
12	2014A3A4PS0001U	Shamith Louis Saldhana	Control of Autonomous Ground Vehicle for Pipeline Monitoring	Dr. R. Karthikeyan	Mechanical
13	2015A9TS0304U	Rubitha Souresh	Exploring the Versatility of Cyanobacteria as Host and Substrate for Hydrogen Production	Dr. Namita Khanna	Bio-Tech
14	2015A9TS0239U	Namisha Bohara	Cloning, Expression and Purification of Human Hair Keratin in E.coli	Dr. Pallab Sanpui	Bio-Tech
15	2015A9TS0353U	Sidra Raihan	Meta-Analysis of Association Studies for CAPNIO Gene Polymorphisms with Polycystic Ovarian Syndrome	Dr. D. J. Shariff	Bio-Tech
16	2015A7TS0427U	Yuvraj Borkade	Understanding the Role of Blockchain Technology in Recent Financial Disruptions and Anticipating its Future Impacts and Opportunities	Dr. Natesa Prasad	Humanities
SEMESTER-I 2020-21					
1	2016A7PS0241U	Nikita Bhargava	Secure System using Blockchain-based on RWFIM Model for Hippocratic Database.	Dr. Sujala Shetty	Computer Science
2	2016A7TS0062U	Vijaya Gajanan Buddhavarapu	Convolutional Autoencoders for Segmentation and Classification of Histopathology Images: An Experimental Study	Dr. Angel Arul Jothi	Computer Science
3	2016A7TS0078U	Sara Tabassi	Big Data Analytics Using Apache Spark And Hadoop.	Dr. Sujala Shetty	Computer Science
4	2016A7PS0024U	Aakansha Mathur	Analyzing Yelp Reviews of Restaurants in USA	Dr. Angel Arul Jothi	Computer Science
5	2015A7TS0218U	Mohammed Ghulam Nabi Rayyan	Converting Traditional Contracts into Smart Contracts Using Blockchain Technology	Dr. Santhosh Kumar	Computer Science
6	2016AATS0079U	Patil Vrushali Bhausahab	Comparison and Evaluation of Controllers for the BalanceBot	Dr. V. Kalaichelvi	Electricals
7	2016A3PS0212U	Shivani Sivakumar	Automization and Analysis of Mechanical Bounces in a Real Time system	Dr. Shazia Hasan	Electricals
8	2016A4TS0254U	Adithya Pradeep Nair	Synthesis of Metallic Glasses and its Properties Evaluation	Dr. Vincent S Kumar	Mechanical
9	2015A4TS0424U	Yashodhan Naik	Drone Management Platforms: The future of Urban Air Mobility	Dr. Vincent S Kumar	Mechanical

S.No	BITS ID	Name	Topic	Supervisor	Department
10	2016A9TS0170U	Chandrasen Mohite	Nir Active Palladium Nanocapsules For Potential Application In Photothermal Therapy	Dr. Pallab Sanpui	Biotechnology
11	2016A9TS0156U	Safiya Aafreen	Cloning of Human Keratin 35 in E. coli	Dr. Pallab Sanpui	Biotechnology
12	2016A9TS0234U	Simran Nirmal Arora	Hydrogen production from algal biomass	Dr. Namita Khanna	Biotechnology
Goa Campus					
SEMESTER-II 2019-20					
1	2016A3TS0186G	Baibhav Phukan	A Distant Learning Approach for Extracting Hypernym Relations from Wikipedia	Dr. Ashish Chittora	EEE
2	2015B3A70352G	Aditya Sinha	Scalable Algorithms for Learning Large Scale Social Network Graph Embeddings	Prof. Ashwin Srinivasan	Economics
3	2015B5B40064G	Roshan Jaisimha Dattatri	Topics in gravitational wave and gamma ray burst astrophysics	Dr. Kinjal Banerjee	Physics
4	2015B5A70656G	Esha Swaroop	Quantum Error-Correction	Dr Radhika Vathsan	Physics
5	2015B4A40440G	Eeshan Singh	Smart Machining In Industrial Manufacturing	Dr Siddhartha Tripathi	Mechanical engineering
6	2015B5A30506G	Divyanshu Gupta	Memristive devices for application in neurotrophic computing	Dr. Abhijit Pethe	Electrical and Electronics
7	2016A7TS0022G	Gunjan Chhablani	Choroidal Segmentation and Vascularity Assessment on OCT using Machine Learning Methods	Dr. Neena Goveas	Computer Science
8	2016A7TS0012G	Karuna Grewal	Design and implementation of the foundations of and runtime support for theory oriented real-time system	Dr. Biju K. Raveendran	Computer Science
9	2015A1B50701G	Ish Mohan Gupta	Thermodynamic aspects of black holes	Sutapa Roy Ramanan	Chemical Engineering
10	2015B1A80805G	Shivani Mansingh	Confocal microscopy and optimization of image analysis using MATLAB (for biological images)	Ashish Chittora	EIE
11	2015B5A70626G	Aman Agarwal	Cold Atomic Gases and Open Quantum Systems	Dr. Tarun Kumar Jha	Physics and Computer Science
12	2016A3PS0132G	Kaustav Tamuly	Robustness of Machine Learning Models	Neena Goveas	Electrical and Electronics Engineering
13	2016A7PS0060G	Shriya TP	3D Pedestrian Pose Estimation with Deep Learning using RGB and LiDAR	Sujith Thomas	Computer Science
14	2015B3A70159G	Rohan James	Multi Agent Reinforcement Learning with Communication	Aswini Kumar Mishra	Economics
15	2015B1A10755G	Prithviraj Chumble	Process Intensification for electroreduction of CO ₂	Dr. Amol Deshpande	Dept of Chemical Engineering
16	2016A1TS0567G	Ayesha Patnaik	Studies in clarification of sugarcane juice and its evaporative crystallization: Experiments and Modelling	Dr. Sharad M. Sontakke	Chemical Engineering
17	2016A4TS0174G	Kapi Ketan Mehta	Control Design of 4-Legged Robot	Prof. D M Kulkarni	MECHANICAL ENGINEERING
18	2016A1PS0527G	Prarthana Chakrabarti	Assisstive Technology and Environmental Access	Dr. Anirban Roy	Chemical Engineering
19	2015B5A30426G	Alok Gokhale	Developing a Portable Quantum Sensing Device	Dr Ashish Chittora	EEE
20	2016A7TS0088G	Aditya Bansal	Computer Vision	Prof. Neena Goveas	CS
21	2015B2A10744G	Abhineet Nigam	Developing methodologies to enable high energy density solid state Li-ion batteries	Dr. Ranjan Dey	Chemistry

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22	2015B2A10748G	Prakhar Aggarwal	Future of Water Dispensers/ Coolers	Sharad Sontakke	Chemical Engineering
23	2015B3A70532G	Shikhar Rastogi	Social Robotics	Prof. Ramprasad S Joshi	Computer Science
24	2015B3A70348G	Shubhransh Jagota	Artificial Intelligence for personalized learning	Ramprasad S. Joshi	Computer Science
25	2015B4A70571G	Aviral Agrawal	Membership Inference and Attribute Inference Attacks in Machine Learning Services	Ramprasad S Joshi	Department of Computer Science
26	2015B5A30330G	Komal Gupta	Learning orbital transfers in the three body problem using machine learning	Dr. Kinjal Banerjee	Physics
27	2015B3A70544G	Rishi Raj Grandhe	Non-Convex Optimization Techniques in Machine Learning	Basabdatta Sen Bhattacharya	Economics
28	2015B3A70423G	Simran Khanuja	Application of speech and language technologies for low resource settings	RamPrasad Joshi	ECONOMICS
29	2016A4PS0269G	Aakash Rajawat	Solvent Recovery by Ceramic Membrane	Siddhartha Tripathi	Mechanical Engineering
30	2016A7PS0087G	Mehul Rastogi	Exploring Neuromorphic Algorithms	Prof. Basabdatta Sen Gupta	Computer Science and Information System
31	2015A7A30039G	Akshay Dharmavaram	Continuous Control using Continuous Options	Bharat Deshpande	CS+EEE
32	2016A8TS0256G	Bhakti Khakkar	Understanding the role of ward councillors in making cities more child friendly using data analytics	Prof. Anita Agrawal	EEE
33	2015B4A70292G	Saloni Dash	Synthetic Event Time Series Health Data Generation	Basabdatta Sen Bhattacharya	Mathematics
34	2015B2A70642G	jasmeet kaur	Application of Motion Planning in Molecular Modelling and Simulation	Dr. Rabi Narayan Panda	Chemistry + Computer Science
35	2015B3A70400G	Adit Vinay Deshmukh	Semi-supervised Machine Learning	Prof. Vinayak Naik	Economics
36	2015B5A70559G	Raghav Arora	Simulations of isolated galaxies with magnetic fields and supernova feedback	Dr T.K Jha	Physics + Computer Science
37	2015B3A30414G	Mohammad Abid	Problems Faced while Installations of Solar Panels in India	Dr Mithun M.S.	Department of Electrical and Electronics Engineering
38	2016A7TS0081G	Aditya Ketkar	Computer Vision	Prof. Tirtharaj Dash	CS&IS
39	2015B5A40500G	Ajay Mohan	AdS/CFT correspondence	Kinjal Banerjee	Physics
40	2016A3TS0655G	Anushka Sham Nayse	Implementation of AI based algorithms in the Design and Development of PCB based products	Ashish Chittora	EEE
41	2014B2A80785G	Devesh Lohia	Software tools development and enhancement in the areas of image filtering, noise reduction and sharpening of medical imagery	Dr. Anita Agrawal	EEE
42	2016A7TS0011G	Sachin Darade	Wireless Sensor Networks	Dr. Shubhangi Gawali	Computer Science
43	2015B3A70477G	Shreesh Keskar	Biometric Template Reconstruction using Data Science and ML Techniques	Dr. Vinayak Naik	Economics
44	2015B2A10817G	Manav Dhingra	Computational Materials Science	Sunil Bhand	Chemistry
45	2016A3TS0113G	Nisarg Sheth	Cross layer low power design for heterogeneous embedded systems	Dr. K R Anupama	EEE
46	2015B4A30407G	Anirudh Srinivas Nallamalli	Exploring GANs in melody and rythm genertaion	Himadri Mukherjee	Mathematics
47	2016A7TS0030G	Anish Bhobe	An Incremental Bi-directional Transformation between AADL Declarative and Instance Models to Support Architecture-Centric Model Management	Dr. Soumyadip Bandyopadhyay	CS & IS

S.No	BITS ID	Name	Topic	Supervisor	Department
48	2015B1A70306G	Kamal A	Regeneration in planarians	Arnab Banerjee	Biological Science
49	2014B5A70701G	Sarthak Munjal	User Profiling	Prof. Bharat Deshpande	Physics
50	2015B4A70706G	Akash Vaish	PAL: Personalized Active Learner	Dr. Himadri Mukherjee	Mathematics
51	2016A7TS0064G	Sugam Budhreja	Detecting sleep disorders from EEG data using spiking neural networks	Basabdatta Bhattacharya	Computer Science and Information Systems
52	2016A7PS0049G	Ameya Sinha	Security protocols	Prof. Bharat M. Deshpande	CSIS
53	2014B5A80671G	Akshay Kumar	Efficient signal processing and analysis using machine learning	Veeky Baths	EEE
54	2013B2A10685G	Sourayan Basu Bal	Synthesis, characterization & application of metal oxide based nanostructured materials for energy storage	Dr. Anirban Roy	Chemical Engineering & Chemistry
55	2015A7B40001G	Sudeep S Katakol	Deep Video Coding	Tirtharaj Dash	Computer Science
56	2015B1A40802G	S Siddharth Kumar	Design of affordable insulin pump for type-1 diabetic patients in resource constrained settings.	Dr. Anasuya Ganguly	Department of Biological Sciences
57	2015B5A40327G	Chinmay Gandevikar	High Precision rotation measurement using Atom interferometry	Dr Sachin Waigaonkar	Mechanical Engineering
58	2016A4TS0226G	Koustubh Bhagat	Development of CFD solver for Cardiovascular blood flow modelling	Dr. Pritanshu Ranjan	Mechanical Engineering
59	2015B5A80515G	B.Aravindh Shankar	Spin qubit-magnet hybrids for quantum spintronics	Ram Shankar Patel	Physics
60	2015B5A30453G	Shashank Sharma	Biological Neural Network	Toby Joseph	EEE
61	2015B4A70585G	Aiswarya Subramanian	Deep Networks, brain networks and nearest neighbours: novel algorithms for machine vision	Basabdatta Sen Bhattacharya	Mathematics
62	2015B4A40188G	Kunal Kamtikar	Prediction of Subscriber Churn and behaviour determination in Telecom Industry using Data Science and Analytics	Dr. Tarkeshwar Singh	Mathematics and Mechanical Engineering
63	2016A1TS0762G	Abhishek Kumar Pandey	Aggregation of Monoclonal Antibodies	Prof. S. S. Baral	Chemical Engineering
64	2015B4A30591G	Mayank Jhamtani	Optimization of Video Codecs for low latency	Tarkeshwar Singh	Mathematics
65	2015B1A40807G	Taha Faraz	Modelling Mechanical Properties of Phagocytic Immune Cells	Prof. Siddhartha Tripathi	Mechanical Engineering
66	2015B1A80763G	Raghav Maheshwari	Automotive Embedded Systems	Dr K.R Anupama	EEE
67	2015B3A70474G	Aravind Venugopal	Reinforcement Learning in NLP	Tirtharaj Dash	Economics, CSIS
68	2015B5A30470G	Chiranjeevsinh Jadeja	Correlation analysis of cosmological datasets	Kinjal Banerjee	Physics
69	2016A3TS0711G	Nirvan Anjirbag	Analyzing human pose for a disentangled representation	Prof. Neena Goveas	EEE
70	2015B4A70708G	Manu Singh	Programming Language Verification	Dr. Biju Raveendran	Computer Science + Mathematics
71	2016A4TS0715G	S.Karthik	Addressing a real world computer vision problem and use Image processing and Machine Learning techniques to come up with a solution.	G.Karthikeyan	Mechanical
72	2015B5A70178G	Sumangala Patki	Planning Locomotion	Dr. Gaurav Dar	Physics
73	2016A4TS0156G	Manhar Gupta	Energy Deposition for Hyper sonic Flow Control	Dr Shibu Clement	Mechanical
74	2015B5A70600G	Nayana B	Bistable switches and Autonomous Oscillations in the medial entorhinal cortex	Sujith Thomas	CSIS

S.No	BITS ID	Name	Topic	Supervisor	Department
75	2015B1A80743G	Sai Krishna Teja Sadhu	Image Processing of Calcium imaging data to understand functional connectivity in mouse olfactory bulb	DR. Anita B. Agrawal	EEE
76	2015B1A10641G	Mridul S Kaimal	Dry storage of Isothermal DNA amplification reagents on paper membranes	Dr. Ravi Prasad Aduri	Department of Biological Sciences
77	2016A1TS0702G	Shivank Sikka	Modelling and Simulation of Pediatric Hemoconcentrator Cartridge for Cardio-Pulmonary Bypass Surgery	Dr. Anirban Roy	CHEMICAL ENGINEERING
78	2015B3A80543G	Jinka Sai Teja	Stock Data Analysis & prediction using Machine Learning Techniques	Dr.Himadri Mukherjee	Economics , Electronics & Instrumentation
79	2014B1A10944G	RAJAT TEWARI	PLANT BIOACTIVES AND THEIR ANTIBACTERIAL ACTIVITY	Malabika Biswas	Biological Sciences
80	2015B3A80411G	Aashish Agarwal	Behavioral Economics	Aswini Kumar Mishra	Economics + Electronics
81	2015B1A40808G	Saurav Mehta	Analyzing Environmental Data using Machine Learning	Dr Sukanta Mondal	Biology
82	2015B5A40624G	Jiwesh Kushal	GNS Construction	Kinjal Banerjee	Physics
83	2015B4A40294G	Shubham Yadav	Optimization of Location of healthcare services	Dr. Varinder Singh	Mechanical
84	2015B4A80502G	Siddharth Dhakane	Stock price prediction using sentiment analysis	Dr. Himadri Mukherjee	Mathematics
85	2015B5A30534G	Sayantana Ghosh	Applications of Artificial Neural Networks in Energy Management.	Dr. M K Deshmukh	Physics and EEE
86	2016A4PS0293G	Rohith V Roy	BUCKLING IN CYLINDRICAL SHELLS	Asst. Prof. Sandeep Jose	MECHANICAL
87	2015B4A10567G	Himanshu Jindal	Study on Perishable Inventory Models	Gauranga C. Samanta	Mathematics
88	2016A4PS0187G	Siddharth Mohan	Investigation of heat transfer in nanofluids	Vadiraj Hemadri	Department of Mechanical Engineering
89	2015B2A10654G	Kumar Manas	First-principles computational study of total energy of defective TiO ₂ supercells.	Dr. KP Jayadevan	Department of Chemistry
90	2015B4A10570G	Deshmukh Nikhil Sanjay	Application of Haar Wavelets	Dr. Amit Setia	Mathematics
91	2015B3A40358G	Harshil Sumra	Trade optimization models for indo African, indo European and indo Latin American countries	Dr. Debasis Patnaik	Economics
92	2015B2A10707G	Shubham Sharma	First- Principles computational study of energy of defective ZnO supercells	K P. Jayadevan	Chemistry
93	2015A4PS0391G	Aditya. V. T	Effect of friction stir welding on mechanical properties	Dr. Kiran D. Mali	Mechanical
94	2015B1A10809G	Prashant Agnihotri	"Application of Machine Learning tools in understanding Biomolecular Interactions"	Ravi Prasad Aduri	Biological Sciences
95	2015B5A40553G	Mehta Yash Hasmukh	Buckling in cylindrical shells	Sandeep Jose	Physics (thesis) + mechanical
96	2015B1A40739G	Sarthak Udai Singh	Investigations into impact of learning styles on outcomes through cognitive science based techniques	Dr. Varinder Singh	Mechanical Engineering
97	2016A7TS0089G	Poojan Thaker	Social Computing - Twitter Analysis	Swati Agarwal	Cs&IS
98	2016A8TS0678G	Hayagriv Raman	Smart grid components and application for renewable energy integration	Dr. M.K.Deshmukh	Electronics and Instrumentation
99	2016A7TS0720G	Aayush Soni	Brain computer interface and application of machine learning.	Veeky Baths	Computer Science
100	2015B4A10389G	Aman Arora	Survey on Cryptography	Dr. Prabal Paul	Mathematics

S.No	BITS ID	Name	Topic	Supervisor	Department
101	2015B5A40633G	Himanshu Gupta	Application of Machine Learning in Supply Chain Management	Dr. Varinder Singh	Mechanical
102	2015B5A30614G	Pathak Amol Pratik	Machine Learning for GNSS Satellite selection	Dr. Nitin Sharma	Electrical and Electronics Engineering
103	2014B5A10898G	Mayank Bhandarkar	Modeling of Carbon Black synthesis using ASPEN Simulations	Prof. S D Manjare	Department of Chemical Engineering
104	2016A7TS0013G	Ananya Singh	Investigation of Interoperability of Data Sets in Sister Languages for NLP on Indo-Aryan Languages	Dr. Ramprasad Joshi	CS
SEMESTER-I 2020-21					
1	2017A4PS1908G	Srija Dutta	Air Quality Analysis and Modeling/Pollution Prevention and Control	Dr Ranjit Patil	Mechanical Engineering
2	2016B4A80470G	Rahul B S	hardware implementation of leakage-resilient authenticated encryption schemes	Prof. Anupama K R	Electronics and Instrumentation
3	2017A7TS0937G	Abhinav Pathak	Blockchain for Internet of Things	Dr. Vinayak Naik	Computer Science and Information Systems
4	2017A4TS0471G	Meet Parikh	Simulation of non-Boussinesq Rayleigh-Bernard Convection	Prof. Shibu Clement	Mechanical Engineering
5	2017A7TS0970G	Nishanth Sanjeev	Using machine learning to identify social bias in corpora.	Prof. Swati Agarwal	(B.E., Hons) Computer Science
6	2017B5TS0619G	Parrivesh NS	Memory consolidation in rats during the NREM sleep	Prof. Gaurav Dar	Physics
7	2017A8TS0683G	Akanksha Sahoo	Designing a module of a trans-radial prosthesis incorporating a timing mechanism to enable tactile grasping	Prof. Abhijit Pethe	Electronics and Instrumentation Engineering
8	2017A4TS0673G	Aditya Phopale	Simulation of non-Boussinesq Rayleigh Bernard Convection	Prof. Shibu Clement	Mechanical Engineering
9	2017AAPS1934G	Ved Sirdeshmukh	Signal Processing Techniques for Financial Data - Portfolio Optimization	Anurag Nishad	EEE
10	2017A7TS0081G	Harnoor Dhingra	Analysis of 3D Rodent Arm reaches with Convolutional Neural Networks	Prof. Basabdatta Sen Bhattacharya	Computer Science and Information Systems
11	2017A7TS1918G	Pranav Guruprasad	Analysis of Simultaneous Electrooculography data and Intracortical recordings using Machine Learning and Deep Learning	Professor Sujith Thomas	Computer Science and Information Systems
12	2016A8PS0322G	Arpit Verma`	Design and analysis of control system for high energy flash-lamp power supply"	Ashish Chittora	EEE
13	2017A4PS0920G	Anany Shrey Jain	Surface anomalies detectiin in materials using computer vision with multi-sensor data	Dr Varinder Singh	Mechanical
14	2016B3A70541G	Fenil Suchak	Developing Machine Learning & Econometric Pipelines	Dr. Aswini Kumar Misra	Economics
15	2017AATS0385G	Mohit Sushil Gupta	Hardware in the loop Simulator in ROS for an Underwater Vehicle	Rakesh R. Warier	Electronics and Communication
16	2017A7TS1913G	Rishikesh Vanarse	Efficient exploration of geometrically constrained environments under challenging conditions of sensing and collision free planning	Dr. Vinayak Naik	Computer Science
17	2016B4A70511G	Sarthak Agarwal	Improving recommender system's effectiveness using weighted algorithms	Prof. Neena	Mathematics

S.No	BITS ID	Name	Topic	Supervisor	Department
			and GUI	Goveas	
18	2017A3TS0315G	Harshal Deshpande	motion planning and control of aerial robots in geometrically constrained environments	Dr. Sarang Dhongdi	EEE
19	2017A1TS0414G	Aditya Rajendra Pujari	Fluid Studies on Small Animals and Carbon Sequestration	Pradeep Kumar Sow	Chemical Engineering
20	2017AAPS0371G	Ajay Subramanian	Automated detection of neuroanatomical features in gigapixel histological images	Dr. Ashish Chittora	Electrical and Electronics Engineering
21	2017AATS0277G	Pranav Mahajan	Designing safe controllers inspired by pain systems in neuroscience	Rakesh Warier	Electronics and Communications Engineering
22	2016B1A40790G	Anurag Pratap Singh	Automated Test Case Generation	Dr Rajest Mehrotra	Biological Sciences
23	2017A7TS0963G	Aditya Kapoor	Partial Reward Decoupling	Professor Sujith Thomas	Computer Science
24	2017A3PS0372G	Ojit Mehta	Airborne Collision Detection and Avoidance	Professor Sarang Dhongdi	EEE
25	2016B3A70489G	Arshia Arya	Improving and finding new refutation methods and performance evaluation methods for Causal Inference in Machine Learning	Aswini Kumar Mishra	Economics Department
26	2016B4A30442G	Shangeth Rajaa V	Speech analysis for classification of sound events	Jajati Keshari Sahoo	Mathematics
27	2017A8TS0487G	Pranay Mathur	Perception in Aerial Robotics	Dr. Abhijit Pethe	EEE
28	2016B4AA0396G	Sagar Bogadi Manjunath	Computer Vision and Image Processing	Dr. J K Sahoo	Mathematics
29	2017A3TS1900G	Anusha Sanjeev Pradhan	Study and Analysis of Storage Protocols like NVMe Fibre Protocol, iSCSI, RDMA etc	Dr Pramila Jakhar	EEE Department
30	2016B1A10618G	Adrija Chakravorty	"Development of a polymeric hydrogel-based wound healing system"	Indrani Talukdar	Biological sciences
31	2017A8TS0512G	Ganeshan Malhotra	Designing an Automated Multilingual Virtual Counselor for Young Indians	Dr. Soumyadip Bandyopadhyay	Electrical and Electronics Engineering
32	2016B5A70472G	Soundarya Krishnan	FASCIA: Artificial Intelligence for Improving Sleep Patterns	Dr. Neena Goveas	Computer Science
33	2017A3TS0334G	Rajaswa Ravindra Patil	Speech Signal Processing	Prof. Ashish Chittora	Department of Electrical & Electronics Engineering
34	2016B4A70295G	Sharan R Y	Developing and testing methodology to diagnose the convergence of Bayesian inference, and testing model quality, for use in probabilistic programming systems.	Mr Tirtharaj Dash	Computer Science & Information Systems
35	2017A4PS0442G	Kanishque Kumar	Turbulence and Flow Control	Prof. Shibu Clement	Mechanical Engineering
36	2017AAPS0228G	Rahul N Shanbhag	Control of Autonomous Vehicles over a Communication Network	Dr. Naveen Gupta	EEE
37	2016B5A30743G	Akash Chaudhary	Development of a human-in-the-loop control system for an underwater remotely operated vehicle (ROV) with large communication latency and low bandwidth.	Dr. Nitin Sharma	Electrical and Electronics Engineering
38	2017A1PS0892G	Ashutosh Vashist	The Evaluation of the Ratnagiri Refinery and Petrochemical Complex	Dr. Richa Singhal	Department of Chemical Engineering
39	2016B5A30103G	Ishaant Agarwal	Image and Signal Processing-based Analysis of fMRI scans and TLM images	Dr. Ashish Chittora	Electrical , Electronics and Instrumentation

S.No	BITS ID	Name	Topic	Supervisor	Department
					Engineering
40	2017A7TS0050G	Rahul Karajgikar	Research Of Misinformation Propagation On Online Social Networks	Sujith Thomas	Computer Science And Information Systems
41	2016B4A70448G	Gaurav Sangle	Efficient DNN execution on edge devices	Rizwan Parveen	Computer Science and Mathematics
42	2016B2A70584G	Abhishek Jain	Investigate the link between unconscious behavior and neural correlates & Impact on Pharma due to COVID-19	Veeky Baths	Chemistry
43	2017A4TS0507G	Mithun M Nair	Microfluidics and its applications	Dr Pritanshu Ranjan	Mechanical Engineering
44	2016B1A30597G	Nikhil Garg	development of memristor-based neuromorphic circuits and study machine learning applications with this hardware	Prof. Abhijit Pethe	EEE
45	2017A8PS0572G	Nipun A Garwal	Developing Scratch Collaborative tool and optimizing the network latency, better project network latency, various compressing techniques for smooth image transfer and optimization on various hardware devices like Raspberry pi, LEGO Mind storms v3 etc.	Prof. Ashish Chittora	Electronics and Instrumentation Engineering
46	2016B2A30593G	Tanmay Dixit	Detection of lesions in medical images using deep learning.	Vinayak Naik	EEE
47	2016B5A70404G	Parth Padia	Development of Software Stack for upcoming Quantum Internet	Prof. Radhika Vathsan	Physics
48	2017A7PS0960G	Ashwin Vaswani	Deep Learning for Medical Imagery	Professor Tirtharaj Dash	Department of Computer Science
49	2017AATS0312G	Gaurav Satyanath	Accelerating feature detectors for real time vision based applications	Dr Pravin Mane	EEE Department
50	2016B5A70517G	Rishab Hemant Khincha	Artificial Intelligence for human cognition and language	Prof. Neena Goveas	Computer Science
51	2016B1A80630G	Rishikesh Veer	Membrane Bioreactors using Waste based Membrane	Prof. Srikanth Mutnuri	Biological Sciences and ENI
52	2016B5A30502G	K Karthik	Quantum Algorithms for DNA Sequencing	Prof. Radhika Vathsan	Physics Department
53	2017A8TS0472G	Sharad Chitlangia	Optimization in Control, Algorithm and Navigation Systems of Autonomous Vehicles under safety standards	Anita Agrawal	EEE
54	2017A4PS0339G	Aditya Anand	Hydraulic and thermo-mechanical analysis of NBI PHTS	Ranjit S Patil	Department of Mechanical Engineering
55	2017A7TS0297G	Raghav Prasad	Virtual Reality and Neural Computation	Dr. Sujith Thomas	Computer Science and Information Systems
56	2016B4A70275G	Madhur Kalia	Time series forecasting	Prof Tarkeshwar Singh	Mathematics
57	2016B5A70566G	Lavanay Thakral	Explainable AI	Pritam Bhattacharya	CS
58	2017A7PS1919G	Amal Desai	Forensic Imaging for Art Diagnostics	Anup B Mathew	CSE
59	2017B5TS0237G	Aswin Narayanan	Spontaneous Quantum Gravity	Dr. Kinjal Banerjee	Physics
60	2016B4A80446G	Ranka Pranay Vivek	Liveness Detection	Dr. Ashish Chittora	Electronics and Instrumentation
61	2016B3A30428G	Harshit Yadav	Controller Development for Electrified Vehicles	Prof. Abhijit Pethe	EEE
62	2017AAPS0206G	Prathmesh Thorwe	Industrial automation and remote	Prof. K R Anupama	EEE

S.No	BITS ID	Name	Topic	Supervisor	Department
			monitoring Embedded systems		
63	2017A4PS0413G	Tanish Dhariyal	Some aspects of Fast Radio Bursts pertaining to Blitzar model	Abhilash Kumar Tilak	Mechanical
64	2017A7PS0135G	Advait Rane	Human-in-the-loop, interpretable, and sample-efficient reinforcement learning	Basabdatta Bhattacharya	Computer Science
65	2016B1AA0760G	Himalaya Sharma	Machine Learning for Wearable Healthcare	Dr. Ashish Chittora	Electronics and Communication Engineering
66	2016B5A30516G	G V S S Jaideep Ram	Control System Design and Application for Autonomous Under Water Vehicles	Narayan Suresh Manjarekar	Electrical and Electronics Engineering(EEE)
67	2016B3A70349G	Nishita Bhatia	Gender Segregation in Education and Its Economic Implications	Dr. Richa Shukla	Economics + CS
68	2016B5A80432G	Aakash Jeremiah	Identity tracking algorithms	Dr.Ashish Chittora	EEE/EIE
69	2015B1A10767G	Shubham Joshi	Language Acquisition In Bi-lingual Adults	Dr. Veeky Baths	Biological Sciences
70	2017A1TS0635G	Harshal Marathe	Mechanical Modelling of Screw Thread Profile using Ansys	Dr. Anirban Roy	Chemical Engineering
71	2017A4PS0918G	Tejas Uday Rane	Mechanisms and Control Systems Design for Quadrupedal Walking Robots	Dr. Pravin Singru	Mechanical Engineering
72	2016B1PS0604G	Aditi Sathe	fMRI analysis of dynamic music processing	Veeky Baths	Biological Sciences
73	2015B1A30760G	Vaibhav Kulshrestha	Isoform expression as biomarker in cancer	Professor Raviprasad Aduri	Biological Sciences and Electrical and Electronics
74	2017A8TS0488G	Shashwat Hemant Kakkad	Data Acquisition System for a Compact Cosmic Muon Tracker	Dr Ramesha C K	EEE Department
75	2016B4A80325G	Shikhar Tiwari	Improving user engagement using ML on OneScore	Himadri Mukherjee	Mathematics
76	2017A1PS0849G	Siddesh Patil	Study and analysis of process optimization techniques involved in manufacturing of industry grade silicates and domestic household products.	Sharad M Sontakke	Chemical Engineering
77	2017A3TS1903G	Nikita Agrawal	Machine to machine modelling and simulation of robotic controllers / software and loading required for future opportunities of human communication with robots	Ashish Chittora	Electrical and Electronics Engineering
78	2017A1PS0773G	Shubh Khandelwal	Study and analysis of process optimization techniques involved in manufacturing of industry grade silicates and domestic household products.	Sharad M Sontakke	Chemical Engineering
79	2017AATS1930G	Sashya Sinha	A study on automating equipment testing and the working of industrial embedded systems using the CNC taper machine.	Dr. Sudeep Baudha	ECE
80	2017A3TS1904G	Nihal Reddy Pingali	Study and Performance Analysis of Electrical Aspects of Thermal Power Plant and hence, Optimisation of Electrical Systems at the plant.	Prof. M.K Deshmukh	EEE
81	2017AATS0380G	Mukund Vinay Agarwal	Verification of Out-of-Order RISC-V Processor	Noel Prashant Ratchagar	Department of Electrical & Electronics Engineering
82	2017A4PS0461G	Kiran M S	CFD Flow Simulations for Evaluating Regional Flow and Pressure in Healthy and Asthmatic Lungs	DR PRITANSHU RANJAN	MECHANICAL
83	2016B4A30487G	Ahan M R	Predictive maintenance of IoT Systems using Machine Learning and Time Series Analysis	Ashish Chittora	Mathematics & Electrical and Electronics

S.No	BITS ID	Name	Topic	Supervisor	Department
					Engineering
84	2016B5A70471G	Khyati Jain	Neuro-symbolic approaches for Natural Language Inferencing	Dr. Neena Goveas	Computer Science
85	2017A4PS0668G	Shourya Singh	Study and Analysis of process optimization techniques involved in manufacturing of industry grade Leaf and Parabolic Springs for Commercial Vehicles.	Dr. Pritanshu Ranjan	Mechanical Engineering
86	2016B2A80564G	Mohit Bhandari	Quantum tunnelling of price, harmonic oscillator model"	Prof. R.N Behera	Chemistry
87	2016B2A40585G	Anish Sharma	Using digital automation to optimize work output	Abhilash K. Tilak	Mechanical Engineering
88	2017A1TS0894G	Mahotsav Priya	Visible-Light-Driven Valorization of Biomass Intermediates Integrated with H ₂ Production Catalyzed by composite catalyst	Saroj Sundar Baral	B.E. Chemical Engineering
89	2017A4PS0250G	Dwarkesh Suresh Shenvi Mandrekar	Biodegradable materials for polymeric usage and their mechanical properties	Dr Sharad Sontakke	Mechanical Engineering
90	2016B4TS0478G	Sarthak Rapartiwar	Spike-time dependent plasticity phenomenon in neural networks	Anushaya Mohapatra	Mathematics
91	2016B1A40768G	Piyush Raj	Crashworthiness	Dr. Kiran D. Mali	Mechanical engineering
92	2016B1A40753G	Rudraksh Vivek	Force Analysis of Biomimetic Dental Implants	Dr. D.M. Kulkarni	Mechanical Engineering
93	2017A4PS0534G	Gourav Roy	Vibration Analysis of Friction Stir Weld Joints	Dr. Kiran Dinkar Mali	Mechanical Engineering
94	2016B2A10539G	Aman singh yadav	Photocatalytic degradation of organic pollutant from wastewater	Prof. Saroj S Baral	Chemical
95	2016B2A70520G	Aman Kumar Singh	Smart Sensing using IoT Devices	Vinayak Naik	Computer Science
96	2016B4A70408G	Rushabh Sanjiv Shah	Studying the evolution of social networks using principles of text mining and graph theory	Swati Agarwal	Computer Science
97	2016B5A70484G	Sohail Suleman Zaveri	Quantum Cellular Automata and their applications to Quantum Simulations	Dr. Radhika Vathsan	Physics
98	2016B2A70536G	Ranjit Singh	Search for continuous Gravitational Waves using Deep Learning techniques	Dr Sanjay Kumar Sahay	Computer Science
99	2016B3A70347G	Gopal Gopakumar	Portfolio investment with smart beta strategies	Prof. Ritika Jaiswal	Economics
100	2016B1A70603G	Mayur Arvind	NLP models for Computational Biology	Prof. Swati Agarwal	Department of Computer Science and Information Systems
101	2016B4A70246G	Arun Girisan	Applications Of Automata Theory and Logic	A Baskar	Computer Science
102	2017A7TS0089G	Anumolu Varsha	Video Forensics	Raj Kumar Jaiswal	Computer Science
103	2017A7PS0964G	Chirag Midha	ML Techniques for recommender systems	Sujith Thomas	Computer Science
104	2016B3A10296G	Shreyans Verma	ELASTICITY OF SUBSTITUTION BETWEEN LABOR AND CAPITAL IN MANUFACTURING SECTOR IN INDIA	Dr. DEBASIS PATNAIK	DEPARTMENT OF ECONOMICS
105	2016B3A10335G	Shah Rahul Mukeshbhai	Impact of financial development on economic growth	Dr. Debasis Patnaik	Economics
106	2017A4TS0688G	Lakshay Dhingra	Design and development of frozen fuel atomization using smart materials	Dr. Devendra G Patil	Mechanical
107	2017A8PS0602G	Simran Singh	To improve and treat the Attention Deficit Hyperactivity Disorder (ADHD) symptoms using Brain Computation Interfacing	Prof. Veeky Baths & Prof. Pramila Jakhar	Department of EEE
108	2016A3TS0144G	K.B.Aditya Reddy	Design of Ground Penetrating Radar (GPR) Antenna using open source EM	Sir Ashish Chittora	Electrical and Electronics

S.No	BITS ID	Name	Topic	Supervisor	Department
			software		Engineering(EEE)
109	2017A8PS0631G	Sagar Sarbadhikary	Brain Computer Interfacing and Feature Extraction	Prof. Veeky Baths	Electronics and Instrumentation
110	2017A1TS0779G	Dev Kumar Singh	Using AI to understand deviations in synthesis of Silver nanowires	Prof Saroj S Baral	CHEMICAL
111	2017A4TS0411G	Yash Bhardwaj	Prognostics modelling for time series forecasting of Part Degradation using Machine Learning.	Dr. Varinder Singh	Mechanical
112	2017A3TS0162G	Kaushik Iyer	Vectorised GNSS SDR for Multipath/NLOS Detection and Correction	Nitin Sharma	Electrical and Electronics
113	2016B1A80736G	Singh Ashish Shailesh	The outcome of the study will be to find the best type of solar cooker models in terms of cost, cooking time, efficiency, user friendliness, etc.	Dr. Anasuya Ganguly	Biological Sciences (Thesis) + Electronics
114	2016B1A40792G	Anamitra Dey	Genome wide study of cis regulatory elements in plants	Rajesh Mehrotra	Biological Sciences
115	2016B3A40348G	Nipun vijayvargiya	influence of normalization on ranking and material selection	Ravindra singh saluja	Mechanical
116	2016B3A40392G	Vaibhav Singh	The influence of normalization in ranking and material selection.	Ravindra singh saluja	Mechanical
117	2017A1TS0725G	Tushar Damani	Hypersaline Solutions	Prof. Anirban Roy	Chemical Engineering
118	2016A4PS0281G	G Karthik Krishna	Simulation of tool wear compensation using MATLAB	G Karthikeyan	Mechanical Engineering

Hyderabad Campus

Second Semester 2019-20

1	2015A2A40618H	Pritish Dey Sarkar	Optimal 3-D printing using delivery based techniques for finite element analysis	Dr. Pavan Kumar P/ Dr. Chandu Parimi	Mechanical Engineering
2	2015A3B30281H	Arunasri Vyshnavi Challa	Home, Commercial and Industrial Automation using the Internet of things	Mr. Sandeep Kumar	EEE
3	2015B1A10828H	Piyush Soni	Lean manufacturing practice in operations of production unit	Mr. Vedant Kakarania/ Prof. Balaji Krishnamurthy	Chemical Engineering
4	2015B1A20810H	Krishna Sairam G	Mesh Segmentation generation (Computational Geometry)	Dr. Chandu Parimi/ Prof. Tathagata Ray	Civil Engineering
5	2015B1A20815H	M Vamsi Krishna	Self-healing concrete, obtaining optimum environmental parameter for microorganisms & testing healing strength of microorganisms by developing cracks	Prof. Jayati Ray Dutta/ Dr. Arkamitra Kar	Biological Sciences
6	2015B1A20825H	Pradeep Reddy Sagili	Bacteria enabled self-healing concrete	Prof. Kumar Pranav N/ Prof. V Vinayaka Ram	Biological Sciences
7	2015B1A30829H	Gande Vishal	Health informatics-Filtering of different artefacts from EEG signal using machine learning techniques	Dr. Rajesh Kumar Tripathy	EEE
8	2015B1A30832H	Prajival Gupta	Develop low cost instrument for cancer detection	Prof. Kumar Pranav N	Biological Sciences
9	2015B1AA0827H	Aakash Pillai	Image processing techniques for brain tumour segmentation	Prof. BVVSN Prabhakar Rao	EEE
10	2015B2A10806H	Shikhar Sharma	Design, synthesis, characterization and application of polyazine and metal complexes	Prof. R. Krishnan	Chemistry
11	2015B2A10808H	Ameen T. Shaikh	Development of core-shell particles through novel route and property relation	Dr. Balaji Gopalan	Chemistry
12	2015B2A20793H	Tulluri Sai Kiran	Road Safety Database Development for	Dr. Bandhan	Civil

S.No	BITS ID	Name	Topic	Supervisor	Department
			Hyderabad City Data on Geometric & Traffic Characteristics will be collected from Vulnerable locations & Statistical analysis will be done.	Bandhu M	Engineering
13	2015B2A30909H	Priyadarshi	Experiments and simulations of plasmon enhanced spectroscopy	Prof. Amit Nag	Chemistry
14	2015B2A40772H	Shubham Sawant	Data driven approach towards app inventory optimization and revenue generation / increment	Mr. Rishabh Kumar/Dr. Kundan Kumar Singh	Mechanical Engineering
15	2015B2A40797H	Apurav Gupta	Probing the strength and surface of solid materials towards heterogeneous catalysis	Prof. Sounak Roy	Chemistry
16	2015B2AA0813H	Suyash Gupta	Novel metallosupramolecular polymers for electrochromic devices	Dr. Chanchal Chakraborty	Chemistry
17	2015B2AB0708H	Undru Sri Guna Kaushik	Synthesis and performance evaluation of heterogeneous catalysts towards energy and environmental applications	Prof. Sounak Roy	Chemistry
18	2015B3A40570H	Shankar Anand Veggalam	Business and Product Management	Mr. Akshay Aedula/ Dr. Sunny Kr. Singh	Economics & Finance
19	2015B3A70531H	R. Shivani Reddy	Image Reconstruction and Deep Learning	Dr. Phaneendra Yalavarthy/ Dr. Rishi Kumar	Economics & Finance
20	2015B3A70647H	Tanmay Girish Kulkarni	Developing methods to understand the impact of interventions and building algorithms to optimize the causal effect	Mr. Amit Sharma/ Dr. Jabez Christopher	Computer Science and Information system
21	2015B3AB0582H	Pranjul Purohit	Welding of a structural components	Dr. Ravi Shanker V	Mechanical Engineering
22	2015B4A30634H	Nadeem Ahmed	Applications of algebraic graph theory using the concept of given values and laplacian matrix to solve network calculations	Prof. Michael Alphonse	Mathematics
23	2015B4A40541H	Abhilash Verma	Exploring the usage of dynamic programming to address the np-completeness of dominating set problem	Prof. Michael Alphonse	Mathematics
24	2015B4A40635H	Devyesh Shrivastava	Multi stage gear box subjected to non-stationary roads	Dr. Sabareesh GR	Mechanical Engineering
25	2015B4A70529H	Piyush R. Kalantri	Efficient algorithms that addresses the NP complete nature of dominating set problems in graphs	Prof. Michael Alphonse	Mathematics
26	2015B4A70845H	Kumar Prasun	Machine learning based optimal control of limiter functions in higher-order mesh free methods	Dr. Anil Nemali	Mathematics
27	2015B4A80656H	P. Lakshmi Suvarna	Boundary value problems for differential/difference equations	Dr. Jangan Mohan J	Mathematics
28	2015B5A20658H	Shakti Singh	Pavement engineering & Materials	Prof. Sridhar Raju	Civil Engineering
29	2015B5A40499H	Mayank Agarwal	Structure formation in universe; Using existing models and optimizing the parameters	Dr. Rahul Nigam	Physics
30	2015B5A70674H	Abhinav Kumar	Casual Inference	Dr. Gaurav Sinha/ Dr. Lov Kumar	Computer Science and Information system
31	2015B5A70675H	Yashdeep Thorat	Implementation of ROS(Robot Operating System) for smart marine vehicles and providing cloud support along with a browser-based mission control	Mr. Koay Teong Beng/ Dr. Subhrakanta Panda	Computer Science and Information system
32	2015B5A80648H	Shraman Saha	Efficiency enforcement in Fe-Electric based photovoltaic devices using ideas from photonic emission.	Prof. Kannan Ramaswamy/ Prof. Hari Hara V	Physics
33	2015B5AA0488H	Nikhil Navaratna	Hot electron generation from mesoscopic particles and their applications	Dr. M Krishnamurthy/ Dr. Rahul Nigam	Physics

S.No	BITS ID	Name	Topic	Supervisor	Department
34	2015B5AA0600H	A V S Dheeraj	Using VR devices to get bio mechanical parameter of neck	Prof. Tathagata Ray/ Dr. R Venkateswaran	EEE
35	2015B5AA0625H	Barshanabin Roy	Analysis of music using deep learning	Prof. Aruna Malapati/ Prof. P.K. Thiruvikraman	Physics
36	2015B5AB0692H	Naveen Hegde	Using Augmented Reality in Physics Laboratory	Prof. P.K. Thiruvikraman	Physics
37	2016A1TS0505H	Shreya Singh	Functional MOF based materials	Prof. Tapas Kumar M/ Dr. Satyapaul Singh A	Chemical Engineering
38	2016A1TS0665H	Kummetha Likhitha Reddy	Flexible nanostructured Surfaces	Dr. Prosenjit Sen/ Prof. Jaideep Chatterjee	Chemical Engineering
39	2016A1TS0929H	S. Rohit Sharma	Synthesis of precursor-derived ceramics for functional properties	Prof. Ravi Kumar N. V/ Prof. Karthik Chetan V	Chemical Engineering
40	2016A2TS0584H	Deshmukh Prasad Pradeep Rao	Geometric consistency evaluation of urban streets	Dr. Bandhan Bandhu M	Civil Engineering
41	2016A3TS0173H	V Srinivas	Machine learning for health care	Dr. Rajesh Kumar Tripathy	EEE
42	2016A3TS0243H	Aryan Ritwajeet Jha	Coordination strategies of distributed energy resources in load frequency control scheme of hybrid isolated microgrid	Dr. Alivelu Manga Parimi	EEE
43	2016A3TS0247H	Abhinav Anand	Design, Analysis and Optimization of the Physical layer in 5G Communications	Dr. Chandra R Murthy/ Dr. Prashant K Wali	EEE
44	2016A3TS0248H	Aditya Kunchur	Mechanisms of Memsistors	Dr. Parikshit Sahatiya	EEE
45	2016A3TS0258H	Harshavardhan Takawale	Lightweight Anomaly Detection of Malware for Embedded Systems	Prof. Siew- kei lam/ Dr. Soumya J	EEE
46	2016A3TS0265H	Suresh Nambi	Implementation of Energy efficient DNN's for edge computation	Prof. Akash Kumar/ Dr. Syed Ershed Ahmed	EEE
47	2016A3TS0283H	Srinivasan M P	Design and Development of a low cost protection circuit module	Mr. Puneet Arora/ Dr. Alivelu Manga Parimi	EEE
48	2016A4TS0264H	Indraganti VLN Parasuram	Analysis of flow between rotating and stationary discs	Prof. Jaywant H Arakeni/ Dr. Santanu Prasad Datta	Mechanical Engineering
49	2016A4TS0279H	Ameya V Haldipurkar	Numerical simulations of multi-phase flows	Dr. Gaurav Tomar/ Dr. KRC Murthy	Mechanical Engineering
50	2016A4TS0322H	Ashutosh Garudapalli	Enhancement of shape memory alloy mechanical/shape memory properties by severe plastic deformation	Prof Amit Kumar Gupta	Mechanical Engineering
51	2016A4TS0354H	Akash Menon	Synthesis of precursor-derived ceramics for functional properties	Prof. Ravikumar N.V./ Dr. Sujith R	Mechanical Engineering
52	2016A4TS0376H	Craig Michael Rocha	Non-Centrifugal Sugar	Prof. M Srinivas	Mechanical Engineering
53	2016A4TS0844H	Kanishka Ganesh	Mitigations of wind loads on low rise buildings using corner modifications and wind breaks	Dr. KRC Murthy/ Dr. Sabareesh GR	Mechanical Engineering
54	2016A5TS0735H	Nikhil Baheti	Operations and management of Pharmaceutical Products	Dr. M.Venkateswar Rao/ Dr. Balaram Ghosh	Pharmacy
55	2016A5TS0747H	Vinith Kumar Bhandari	Dopamine homeostasis and topamine receptors functionality contribution of serotonin transporter	Prof. Thomas Hummel/ Dr. Onkar Kulkarni	Pharmacy
56	2016A7TS0006H	R. Monith Sourya	Approximation Algorithms	Dr. B. Manjanna	Computer Science and Information system

S.No	BITS ID	Name	Topic	Supervisor	Department
57	2016A7TS0015H	Akella S V S Sai Kartheek	SPADE: Sandbox Perturbation Analysis of Malware	Dr. Sai Praveen Kadiyala/ Prof. N.L. Bhanu Murthy	Computer Science and Information system
58	2016A7TS0020H	Chilakala Naga Venkata Akhil	Optimized Solutions for Analysing Trade data using M L Algorithms	Mr. Rohit Maheshwari/ Prof. G. Geetha Kumari	Computer Science and Information system
59	2016A7TS0040H	Mahir Shah	Automatic Tuning of Learning Rate for Optimisation of deep neural networks	Dr. Nipun Kwatra/ Prof. Chittaranjan Hota	Computer Science and Information system
60	2016A7TS0048H	Aditya Y. Lohana	Machine learning, Internet of Things, Distributed Systems	Prof.Akash K/Mr.S Rai/ Dr. Rajib Ranjan M	Computer Science and Information system
61	2016A7TS0053H	Suraj Loungani	(High performance computing) Algorithms Differentiation of Mesh free Solution	Prof. Tathagata Ray/Dr. Anil Nemili	Computer Science and Information system
62	2016A7TS0079H	U. Sai Surya	Empirical Software Engineering and AI assisted Devops	Mr.Chandra Sekhar M/ Prof. Chittaranjan Hota	Computer Science and Information system
63	2016A7TS0091H	V. Aditya Srikanth	Conversational Query Generation	Mr. Niranjan Nayak/ Prof. Aruna Malapati	Computer Science and Information system
64	2016A7TS0095H	Kaustubh Welankar	Big Data Analytics, databases, Compilers	Dr. Bhargav Gulavani/ Dr. Paresh Saxena	Computer Science and Information system
65	2016A7TS0104H	Ellore Anish Reddy	Distributed Machine Learning	Prof. Chittaranjan Hota	Computer Science and Information system
66	2016A7TS0121H	Ashish Gupta	Software Fault Prediction Using Machine Learning	Dr. Lov Kumar/ Prof. N.L. Bhanu Murthy	Computer Science and Information system
67	2016A7TS0136H	Basu Dubey	Software Engineering, Data Science, Networking	Mr. Somjit Chatterjee/ Dr. Paresh Saxena	Computer Science and Information system
68	2016A7TS0139H	Athilesh Arputham	Control in robotics using reinforcement learning	Dr. Manik Gupta	Computer Science and Information system
69	2016A8TS0342H	Puneet Singh	Wearable electronics for biomedical applications	Dr. Saroj Mondal	EEE
70	2016A8TS0372H	Akhil Raj Baranwal	Exploiting FPGAs for reinforced deep Learning based systems	Dr. Siva Satyendra Sahoo/ Prof. Sanket Goel	EEE
71	2016A8TS0382H	Aishik Nandy	IOT based microgrid for residential application	Dr. Sudha Radhika	EEE
72	2016A8TS0833H	Kesiharjun Lokireddy	Microfluidic platforms for cell sorting into biomechanical phenotypes	Dr. Todd Sulchek/ Prof. Sanket Goel	EEE
73	2016AATS0145H	Priyash Barya	IR/Microwave plasmonics	Prof. Ambarish Ghosh/ Dr. Parishit Sahatiya	EEE
74	2016AATS0158H	Sohail Rajdev	Issues and solutions to enhance the browsing experience on the internet	Mr. Amit Kundlia/ Dr. Harish V Dixit	EEE
75	2016AATS0188H	Chamakoora Satcheel Reddy	Deep reinforcement learning for biomedical applications	Dr. Rajesh Kumar Tripathy	EEE
76	2016AATS0189H	Saristh	Viewing parameters of video processing, by using adellers to get the desired result	Dr. Syed Ershed Ahmed	EEE

S.No	BITS ID	Name	Topic	Supervisor	Department
77	2016AATS0192H	Aishwarya B Rebelly	Policy framework for technology choices	Prof. G Ramesh/ Prof. Sanket Goel	EEE
78	2016AATS0227H	Deepak Dahiya	Improvements in field of cloud computers (Azure)	Mr. Bishal Prasad/ Dr. Runa Kumari	EEE
79	2016AATS0818H	Dyuti Chakravarthy	Development & Optimizing of libraries for pipeline development in computer generated imagery	Mr. Gaurav Mathur/ Dr. Harish V Dixit	EEE
80	2016ABTS0504H	Pratijay Guha	Using neural networks to solve the increase flow problem	Dr. KRC Murthy/ Dr. Pardha Saradhi	Mechanical Engineering
81	2016B2TS0692H	Akshata R. Iyer	Organic functional materials. Finding solid state fluorescent materials for various applications	Prof. Manab Chakravarty	Chemistry
82	2016B5TS0863H	Sachin P	Question of locality in quantum gravity	Dr. Chethan Krishnan/ Dr. Prasant Samantray	Physics
SEMESTER-I 2020-21					
1	2016B1A40619H	Mayank Gupta	Digital approach to health awareness.	Prof. Suman Kapur	Biological Sciences
2	2016A1B10664H	Kritika Kasliwal	Dissecting epigenetic mechanisms of X-chromosome inactivation	Dr. Sandeep Kalantry/ Prof. Kumar Pranav N	Biological Sciences
3	2016B4A20522H	Gautam Mishra	Structural Dynamics of Non Structural Elements	Dr. Chandu Parimi	Civil Engineering
4	2017A2PS0529H	VVNS Shashank	Numerical Analysis of phase change material incorporated roof sealing compound for passive cooling in buildings	Prof. V Vinayaka Ram/ Dr. Parameshwaran R	Civil Engineering
5	2017A2PS0929H	T Devi Sreya	Application of Micro-modelling for Seismic behaviour of masonry structures	Dr. Mohan S C/ Prof. Sridhar Raju	Civil Engineering
6	2017A2TS0947H	KN Vaishnavi	Microplastics in Wastewater Treatment Plants	Dr. Murari R R Varma/ Prof. P Sankar Ganesh	Civil Engineering
7	2017A2TS0987H	P Swetha	Simulation of Tyre – Pavement Interaction using FEM software	Dr. Chandu Parimi/ Prof. Sridhar Raju	Civil Engineering
8	2017A2TS1023H	N Siva Nagendra Babu	Development of simulation models for laboratory setup of cement and concrete specimens using COSMOL to find correlations between degree of hydration and strength characteristics	Dr. Arkamitra Kar	Civil Engineering
9	2017A2TS1137H	G Varun	Seismic Torsional Response of plan asymmetric infill wall buildings	Dr. Mohan S C	Civil Engineering
10	2016B1A20945H	Haritya Shah	Developing Analysis Tools for evaluating traditional structural systems	Dr. Sanjay Chikermane/ Dr. Arkamitra Kar	Civil Engineering
11	2017A2TS0958H	Gaurav Sarda	Studies on Developing Equivalent Top-down Load-Settlement Response of Pile Foundations using Bi-directional Load Testing Results	Prof. S Murty Dasaka/ Dr. Anasua Guharay	Civil Engineering
12	2017A2TS1009H	Shantanu Chandan	Influence of Non Commercial Vehicular traffic proportion on Lane Distribution Factors on highways through video based field observations	Prof. V. Vinayaka Ram	Civil Engineering
13	2017A2TS1046H	Aryan Singh Chandel	Simulation of crack propagation and healing in bacterial concrete	Dr. Arkamitra Kar	Civil Engineering
14	2016B1A10671H	Navinchandra Venkatarama Puppala	To study the application of Nanocellulose and modified forms of Nanocellulose.	Dr. D Purnima/ Dr. Gireesha T M	Chemical Engineering
15	2017A1TS1400H	Shubhani Paliwal	Lattice Boltzmann modelling to study the effect of Gas-Liquid distributions in Anodic Porous Transport Layer to the performance of PEM electrolysers	Dr. Vikranth Kumar S	Chemical Engineering
16	2017A1TS0964H	Karan Grover	Business Development, Product Analytics, Customer Acquisition &	Mr. Kush Jain/ Dr. Ved Prakash M	Chemical Engineering

S.No	BITS ID	Name	Topic	Supervisor	Department
			Partnership.		
17	2017A1TS1138H	Bale Ashwin Anand	Predicting phase behaviour of polymer using molecular simulation and machine Learning	Mr. Tarak Patra/ Dr. Satyapaul Singh A	Chemical Engineering
18	2017A1TS1382H	Patel Omeet Nileshbhai	Molecular Simulations of CO ₂ /N ₂ Separation in nanoporous material.	Mr. Peng Bai/ Dr. Vikranth Kumar S	Chemical Engineering
19	2016B2A70688H	Shristy Kapoor	Applying rigorous machine learning frame works to improve VLSI design processes	Dr. Mysore Sriram/ Prof. Manab Chakravarty	Chemistry
20	2016B4A70675H	Shivaank Agarwal	Using Computer Vision Techniques for Waste Classification	Prof. Ravindra Gudi/ Dr. Paresh Saxena	Computer Science and Information system
21	2017A7TS0184H	Krut Patel	Enabling Analytics Queries on Petabyte-Scale Data	Dr. Bhargav Gulavani/ Dr. Paresh Saxena	Computer Science and Information system
22	2016B3A70237H	Shreeya Jain	Facial Emotion Detection using Computer Vision	Dr. Adarsh Pyarelal/ Dr. Jabez Christopher	Computer Science and Information system
23	2016B3A30415H	Gubba Abhishek	Inequality in health indicators of India	Dr. Rishi Kumar	Economics & Finance
24	2016B3A40453H	Tanishk Milind Deoghare	What motivates banks to use derivatives: Evidence from India	Dr. Thota Nagaraju	Economics & Finance
25	2016B3A30385H	Khyati Agarwal	Engineering and Market of Virtual Board Games	Dr. Manish Kaushal/ Dr. Rishi Kumar	Economics & Finance
26	2016B3A70491H	Srividya A	The thesis will revolve around the different aspects of Economic development of India. Empirical evidence based research will be conducted with an aim of publication	Dr. Soham Sahoo/ Dr. Rishi Kumar	Economics & Finance
27	2017AATS0307H	M. Saisaranya	Flexible antennas for wireless sensor applications.	Dr. Sourav Nandi/ Dr. Parikshit Sahatiya	EEE
28	2017A8TS1348H	Prathamesh Saraf	Robotic Manipulator: Modelling, Simulation, and Control	Dr. R N Ponnalagu	EEE
29	2016B2A30683H	K G Sankalp	Fabrication of 2D materials based flexible nanoelectronic devices and their applications	Dr. Parikshit Sahatiya	EEE
30	2017A3TS0602H	Shreyansh Jain	Emotion Recognition from Multi-Channel EEG Signal using CRNN	Dr. Rajesh K Tripaty	EEE
31	2017A3TS0565H	Neil Shah	Venture Capital Research in Clean Energy Startups	Dr. Nivedita Sinha/ Dr. Sudha Radhika	EEE
32	2017AATS0448H	Joel Varughese	Application of learning theory in Cyber physical systems	Dr. Gopal Krishna K M	EEE
33	2017A3TS0374H	Jasvith Raj Basani	Quantum Nonlinear Optics of Machine Learning Accelerators	Prof. Dirk Englund & Dr. Stefan Krastanov/ Prof. Sanket Goel	EEE
34	2017A3TS0487H	Rohan Panda	Transfer learning based illness classification using deep learning and rf MRI data	Dr. Russell Greiner/ Dr. Rajesh K Tripathy	EEE
35	2017A3TS0488H	Manan Gupta	Explore the possibilities of using ROS2 and uROS for underwater and surface vehicles	Mr. Koay Teong Beng/ Dr. Alivelu Manga P	EEE
36	2017A3TS0587H	Nirmit Deshpande	Review of in situ and operando methods for energy storage and conversion, with a focus on materials for batteries	Prof. Yuzhang Li/ Dr. Parikshit Sahatiya	EEE
37	2016B3A30450H	Tarun Garg	Developing and using knowledge graphs along with Deep Learning Algorithms to improve the information extraction process from clinical or health-related text	Dr. Amit Sheth/ Dr Surya Shankar Dan	EEE

S.No	BITS ID	Name	Topic	Supervisor	Department
38	2016B4A70519H	Harivallabha Rangarajan	GPU Parallelizable Automatic Differentiation of a in-house Meshfree Solver, in Julia	Dr. Anil Nemili	Mathematics
39	2016B4AA0515H	Harshit Agarwal	Machine Learning	Dr. Lov Kumar/ Dr. Debopam Chakraborty	Mathematics
40	2016B4A10513H	T Rahul Raju	I would like to pursue my thesis work in the field of cosmology relating to the mathematical models of Einstein's theory of general relativity and modified gravity.	Prof. P.K. Sahoo	Mathematics
41	2016B4AA0498H	Vaibhav Bhasin	Working on Recurrent Neural Networks and NLP. Taking a large dataset of text streams belonging to a certain topic and analysing the patterns	Prof. V. Haragopal	Mathematics
42	2016B4A80535H	Archana S	3D reconstruction of humans from 2D image supervision.	Prof. Aljosa Smolic/ Dr. Manish Kumar	Mathematics
43	2017A4TS0375H	Urjit Lad	Thermal Coolant System Design and Energy Management of Li-ion Battery Pack using a Phase-change Material	Prof. Jeevan Jaidi	Mechanical Engineering
44	2017A4TS0707H	Arjun Singh	Quantum kinetic modelling of reacting rarefied hypersonic flow over backward facing step	Dr. KRC Murthy	Mechanical Engineering
45	2017A4TS0674H	Mohammed Azizur Rehman	Optimization based approach for motion planning from UAV imagery	Dr. Arshad Javed/ Prof. YVD Rao	Mechanical Engineering
46	2017A4TS0216H	S Aditya Karthik	Modelling and Simulation of Computational Thermo-Fluid Dynamics related to Rarefied Gas Flows	Dr. Manuel Torrilhon/ Dr. KRC Murthy	Mechanical Engineering
47	2017A4TS0480H	Amrith K	Design and assembly of mini excavator and conceptualisation of E.V. based mini excavator	Mr. Bharat Anantha/Dr. Kurra Suresh	Mechanical Engineering
48	2017ABTS1332H	Shardul Tamane	Operations management strategy for streamlining of operational process along with study of operations research papers and innovative supply chain papers	Mr. Ramakrishna Yeeramalli/ Dr. Ravi Shankar V	Mechanical Engineering
49	2016A5TS0728H	Chaiti Chatterjee	Value creation in mergers & acquisitions deals involving pharmaceutical industries in India and the subsequent response of the consumers.	Dr. Balam Ghosh/ Dr. Nivedita Sinha	Pharmacy
50	2016B5A10604H	Himanshu Achra	Nanoplasmonics	Prof. Amit Nag/ Prof. Kannan Ramaswamy	Physics
51	2016B5A30468H	Nikhil Gupta	Mathematical Physics	Dr. Shashideep Gutti	Physics
52	2016B5A70579H	Vishwangi Shah	Astronomy	Prof. Sarmistha Banik	Physics
53	2016B5A80570H	Amit Mishra	Cosmology	Dr. Rahul Nigam	Physics

List of Research Publications in SCOPUS indexed journals

Pilani Campus

1. G. Lakshmi, Shilpi Garg, Neera Kapoor, "BOOK REVIEW: PIERCING POWER IS MORE THAN THE HUMAN POWER ", International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume.8, Issue 4, pp.2406-2407, April 2020
2. G. Lakshmi, Shilpi Garg, World Malaria Day – a Good Time to Remember COVID-19 Isn't the Only Crisis; The Wire, Science, Health, 25 April 2020
3. Niveditha D, Jasoria M, Narayan J, Majumder S, Mukherjee S, Chowdhury R & Chowdhury S. Common and Unique microRNAs in Multiple Carcinomas Regulate Similar Network of Pathways to Mediate Cancer Progression. (2020) 10:2331.
4. Chaudhary J, Mittal V, Mishra S, Daiya A, Chowdhury R, Laskar IR, and Roy RK, A New AIE Active Halochromic White Light Emissive Molecule: Combined Experimental and Theoretical Study. DOI: 10.1021/acs.jpcc.0c01067 • Publication Date (Web): 27 May 2020
5. Sandhu M, Jha P. Paul AT, Singh RP. Jha PN (2020): Evaluation of biphenyl- and polychlorinated-biphenyl (PCB) degrading *Rhodococcus* sp. MAPN-1 on growth of *Morus alba* by pot study, International Journal of Phytoremediation, DOI: 10.1080/15226514.2020.1784
6. Agarwal, DS, Singh RP, Jha PN, Sakhuja R. (2020). Fabrication of deoxycholic acid tethered α -cyanostilbenes as smart low molecular weight gelators and AIEE probes for bio-imaging. *Steroids* 160: 108659. doi.org/10.1016/j.steroids.2020.108659
7. Khan S, Paravastu P, Jha PN, Marathe SM (2020). Elucidating the pathogenic potential of *Enterobacter cloacae* SBP-8 using *Caenorhabditis elegans* as a model host. *Microbial Pathogenesis*, 148: 104449. <https://doi.org/10.1016/j.micpath.2020.104449>.
8. Anusha.S.M, Sivanesh. N.E, Deepa P.R, Surianarayanan M. (2020). Understanding the biocalorimetric and respirometric behaviour of co-culture (*R. eutropha*, *P. putida* and *A. vinelandii*) in poly (3-hydroxybutyrate) batch production. *Biochemical Engineering Journal*. 155, 107334.
9. Anusha S.M, Sivanesh N.E, Hariram. P, Leelaram. S, Ankitha. R, Vignesh. S, Deepa P.R, Surianarayanan M. (2020). Biokinetics of fed-batch production of poly (3-hydroxybutyrate) using microbial co-culture. *Appl Microbiol Biotechnol.* ;104(3):1077-1095.
10. Rapallia VK, Banerjee S, Khan S, Jha PN, Gupta G, Dua K, Hasnain MS, Nayak AK, Dubey SK, Singhvi G. (2021). QbD-driven formulation development and evaluation of topical hydrogel containing ketoconazole loaded cubosomes. *Materials Science and Engineering: C*, 119: 111548 (will be in print version of Feb 21)
11. Satyam Srivastava, B. Vani & Shashikant Sadistap 2020 Machine-vision based handheld embedded system to extract quality parameters of citrus cultivars. *Journal of Food Measurement and Characterization* Volume 14, pages 2746–2759.
12. Srivastava, S., Vani, B. & Sadistap, S. Handheld, smartphone-based spectrometer for rapid and nondestructive testing of citrus cultivars. *Journal of Food Measurement and Characterization* (2020): In press
13. Deepa PR, Nalini V, Surianarayanan M, Krishnakumar S. (2021). Towards safer non-volatile tissue fixatives: Evaluation of choline-based ionic liquids for fixing ocular tissues. *Ecotoxicol Environ Saf.* 2020 Dec 19; 209:111777. doi: 10.1016/j.ecoenv.2020.111777. Epub ahead of print. PMID: 33352431.
14. Subhra Dash, Anirudha K Sahu, Abhilasha Srivastava, Rajdeep Chowdhury, Sudeshna Mukherjee (Nov. 2020). Exploring the extensive crosstalk between the antagonistic cytokines- TGF- β and TNF- α in regulating cancer pathogenesis. *Cytokine* 2020 Nov 3;155348. doi: 10.1016/j.cyto.2020.155348."
15. Pareek, V., Bhargava, A. and Panwar, J. 2020. Biomimetic approach for multifarious synthesis of nanoparticles using metal tolerant fungi: A mechanistic perspective. *Materials Science and Engineering: B*, 262: 114771-114778.
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Journal Publications

S.No	Authors	Article Title	Journal Name	Vol_No	Pages
1	Bidkar A.P., Sanpui P., Ghosh S.S.	Transferrin-Conjugated Red Blood Cell Membrane-Coated Poly(lactic-co-glycolic acid) Nanoparticles for the Delivery of Doxorubicin and Methylene Blue	ACS Applied Nano Materials	3	3807-3819
2	Sreeja Rajendran., Mary Lourde Regeena	Testability Analysis and its Application to Hardware Security	International Journal of Circuits and Electronics	5	1 - 11
3	Ariane Ollier-malaterre., Mahima Raina., Kamlesh Singh	Happily Exhausted: Work Family Dynamics in India	Occupational Health Science	4	191-211
4	Mahima Raina, Eunae Cho, Kamlesh Singh	Toward contextual understanding: antecedents of work-family interface in India	South Asian Journal of Business Studies	9	
5	Sai Mahaan Gannavarapu, Addepalli Pranay	SUSTAINABLE GREEN VENTURE	International Journal of Engineering Applied Sciences and Technology	5	277-279
6	Satchit Chatterji, Aayush Desai, Aditya Dwarkesh, Anushree Ganesh, Ameya Kunder, Pulkit	A Highschooler's Guide to GeV-Range Electromagnetism	The Physics Educator	2	1-17

S.No	Authors	Article Title	Journal Name	Vol_No	Pages
	Malhotra, Roshni Sahoo, Jinal Shah, Kiranbhaskar Velmurugan, Markus Joos, Cristóvão Beirão Da Cruz E Silva and Gianfranco Morello				
7	Nand Kumar, Vishal Naranje & Sachin Salunkhe	Cement strength prediction using cloud-based machine learning techniques	Journal of Structural Integrity and Maintenance	5	244-251
8	Jani Babu Shaik., Sonal Singhal., Nilesh Goel	Analysis of SRAM metrics for data dependent BTI degradation and process variability	Integration	72	148-162
9	Sevasti-Melissa Nolas, Christos Varvantakis & Vinnarasan Aruldoss	Political activism across the life course	PAULUS: Revista de Comunicação da FAPCOM	4	41 -56
10	Eldhose Iype, Sadhya Gulati	Understanding the asymmetric spread and case fatality rate (CFR) for COVID-19 among countries	Medrxiv		1-9
11	Raja Muthalagu & Subeen Jain	Improved KASUMI block cipher for GSM-based mobile networks	Journal of Cyber Security Technology		
12	Tirth Lakhani, Vilas H. Gaidhane	An Efficient Thermoelectric Energy Harvesting System	International conference on Modelling, Simulation and Intelligent Computing		590 - 597
13	Upadhyaya P., Kumar S., Reddy J.N., Lacy T.E., Jr.	Multiscale modeling of strength and failure behavior of carbon nanostructure reinforced epoxy composite adhesives in bonded systems	European Journal of Mechanics, A/Solids	80	-
14	Tapan Kumar Datta	A New Green Efficiency-Based Carbon Taxing Policy and Its Effects on a Production-Inventory System with Random Carbon Emissions and Green Investment	Advances in Operations Research	-	1-13
15	Sreeja Rajendran and Mary Lourde Regeena	Sensitivity analysis of testability parameters for secure IC design	IET Computers and Digital Techniques	14	158 -165
16	Philip M.M., Natarajan K., Ramanathan A., Balakrishnan V.	Composite pattern to handle variation points in software architectural design of evolving application systems	IET Software	14	98 -105
17	Milu Mary Philip., Nishank Singhal., Raagashree Ravi., Vijayakumar Balakrishnan	A Quantitative Approach to Analyze Modifiability in Software Architectural Design of Agile Application Systems	Information Technology and Control	49	249 -259
18	Mungekar A., Solanki Y., Swarnalatha R.	Augmentation of a SCADA based firewall against foreign hacking devices	International Journal of Electrical and Computer Engineering	10	1359 -1366
19	Gupta D., Parikh A., Swarnalatha R.	Integrated healthcare monitoring device for obese adults using internet of things (IoT)	International Journal of Electrical and Computer Engineering	10	1239 -1247
20	Kesar M Kothari., Udayakumar Rajamanickam., Ram Karthikeyan., Vishweshwar S., Nikitha Raj	Modeling of the Manifold Configuration for Maximum Efficiency in a Hydraulic Machine	International Journal of Fluid Machinery and Systems	13	136-149
21	Shazia Hasan, Ameya K.Kulakarni, Sebamayee Parija, P.K. Dash	A systematic review on detection and estimation algorithms of EEG signal for epilepsy	International Journal of Medical Engineering and Informatics	-	-
22	Neethu Elizabeth Michael, Shazia Hasan	Virtual Inertia Support in the microgrid, its research challenges and its technology potentials in	International Journal of Power Electronics	-	-

S.No	Authors	Article Title	Journal Name	Vol_No	Pages
		recent years			
23	Gireeshan M.G., Shankar D.D., Azhakath A.S.	Feature reduced blind steganalysis using DCT and spatial transform on JPEG images with and without cross validation using ensemble classifiers	Journal of Ambient Intelligence and Humanized Computing	-	-
24	B. Vivek &Prishati Raychowdhury	Soil–Structure Interaction Study on 3D SMRFs of Indo-Gangetic Plain Using Resonant Vibration Tests	Journal of Earthquake Engineering	-	1-23
25	NEERAJA PADMAN, R SWARNALATHA, VARSHA VENKATESH, NEELES KUMAR	TELEDIAGNOSIS OF PARKINSON'S DISEASE SYMPTOM SEVERITY USING H&Y SCALE	Journal of Engineering Science and Technology	15	1466 -1480
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27	Mani Cherish; Karthikeyan, R; Davim, J Paulo.	A REVIEW ON AUSTENITIC STAINLESS STEEL-BASED DISSIMILAR METAL WELDING USING GAS TUNGSTEN ARC WELDING	Journal of Manufacturing Technology Research	12	65-82
28	Rafsa Koyadeen Tharammal , Anand Kumar, A. R. Abdul Rajak, and Vilas Haridas Gaidhane	Theoretical Investigation of Design Methodology, Optimized Molecular Geometries, and Electronic Properties of Benzene- Based Single Molecular Switch with Metal Nanoelectrodes	Journal of Nanomaterials	-	-
29	Jyothi Yadav , Amol Prakash Pawar, Yadav Kacharu Nagare, Eldhose lype, Krishnan Rangan, Joji Ohshita, Dalip Kumar, and Indresh Kumar*	Direct Amine-Catalyzed Enantioselective Synthesis of Pentacyclic Dibenzo[b, f][1,4]oxazepine/Thiazepine-Fused Isoquinuclidines along with DFT Calculations	Journal of Organic Chemistry	-	-
30	Ranjit Singh, Shazia Hasan	Comparative Study on Load Frequency Control of a Single Microgrid Coupled with Thermal Power Plant Using Fuzzy and PID Controllers	Lecture Notes in Electrical Engineering	659	19-29
31	Shailendra Saraf., Swarnalat Saraf., Sunil Kumar Dubey., K K Lakshmi., Kowthavarapu Venkata Krishna., Mukta Agrawal., Gautam Singhvi., Ranendra Narayan Saha., Rahul Shukla., Amit Alexander	Insulin mediated novel therapies for the treatment of Alzheimer's disease	Life Sciences	-	-
32	S. Kannan ,H. A. Kishawy,S. Pervaiz,K. Thomas,R. Karthikeyan &Ramanathan Arunachalam	Machining of novel AA7075 foams containing thin-walled ceramic bubbles	Materials and Manufacturing Processes	-	1-10
33	Suhel Ahmad Khan., Kaleem Raza Kazmi., Damrongsak Yambangwai., Watcharaporn Cholamjiak	A hybrid projective method for solving system of equilibrium problems with demicontractive mappings applicable in image restoration problems	Mathematical Methods in the Applied Sciences	-	-
34	Julia Tholath Jose., Adhir Baran Chattopadhyay	Mathematical Formulation of Feedback Linearizing Control of	Mathematical Problems in Engineering	2020	1-10

S.No	Authors	Article Title	Journal Name	Vol_No	Pages
		Doubly Fed Induction Generator Including Magnetic Saturation Effects			
35	Raavee Kadam., Srinivasa A Rao., Waheed Kareem Abdul., Shazi Shah Jabeen	Diversity climate perceptions and its impact on multicultural team innovation and performance	Measuring Business Excellence	-	-
36	Nanda A., Jana S K., K T., Wangdi T., Sharma P., Banerjee P., Mainak Dutta., Chaudhury K	Cytokines, Angiogenesis, and Extracellular Matrix Degradation are Augmented by Oxidative Stress in Endometriosis	Annals of Laboratory Medicine	40	390-397
37	Vyasraj Manakari, Sathish Kannan, Gururaj Parande, Mrityunjay Doddamani, Soumya Columbus, Priya Sudha K, S. Vincent and Manoj Gupta	In-Vitro Degradation of Hollow Silica Reinforced Magnesium Syntactic Foams in Different Simulated Body Fluids for Biomedical Applications	Metals	10	1-13
38	Sengan Sudhakar, P Kanmani, K Amudha, PVishnu Raja, Anil Kumar Dubey, A Razia Sulthana, V Subramaniaswamy, V Priya	Network Embedding Architecture using Laplace Regularization-Non-Negative Matrix Factorization for Virtualization	Microprocessors and Microsystems	-	-
39	Shaleen Bengani, Angel Arul Jothi J. & Vadivel S.	Automatic segmentation of optic disc in retinal fundus images using semi-supervised deep learning	Multimedia Tools and Applications	-	1-26
40	Deepa D. Shankar & Adresya Suresh Azhakath	Minor blind feature based Steganalysis for calibrated JPEG images with cross validation and classification using SVM and SVM-PSO	Multimedia Tools and Applications	-	1-20
41	Choudhary S., Yadav J., Mamta., Pawar A P., Vanaparathi S., Mir N A., Eldhose Iype., Sharma R., Kant R., Kumar I	Sequential multicomponent site-selective synthesis of 4-iodo and 5-iodopyrrole-3-carboxaldehydes from a common set of starting materials by tuning the conditions	Organic and Biomolecular Chemistry	-	--
42	Vijaya Gajanan, Buddhavarapu, Angel Arul Jothi J	An experimental study on classification of thyroid histopathology images using transfer learning	Pattern Recognition Letters	140	1-9
43	Kaleem Raza Kazmi., Watcharaporn Cholamjiak., Hemen Dutta., Suhel Ahmad Khan	Convergence analysis for combination of equilibrium problems and k-nonspreading set-valued mappings	Proyecciones	39	599-619
44	Gorantla S., Waghule T., Rapalli V K., Singh P P., Sunil Kumar Dubey., Saha R N., Gautam Singhvi	Advanced hydrogels based drug delivery systems for ophthalmic delivery	Recent Patents on Drug Delivery and Formulation	14	-
45	Damrongsak Yambangwai., Watcharaporn Cholamjiak., Kaleem Raza Kazmi., Suhel Ahmad Khan	Strong convergence analysis of common variational inclusion problems involving an inertial parallel monotone hybrid method for a novel application to image restoration	Revista de la Real Academia de Ciencias Exactas, Fisicas y Naturales - Serie A: Matematicas	114	1-20
46	J. Rajevenceltha & Vilas H. Gaidhane	A novel approach for image focus measure	Signal, Image and Video Processing	-	1-9
47	Razia Sulthana Abdul Kareem., Maulika Gupta., Shruthi	Improvising the performance of image-based recommendation system using convolution neural	Soft Computing	-	1-14

S.No	Authors	Article Title	Journal Name	Vol_No	Pages
	Subramanian., Sakina Mirza	networks and deep learning			
48	Mahmood A., Rapalli V.K., Waghule T., Gorantla S., Dubey S.K., Saha R.N., Singhvi G.	UV spectrophotometric method for simultaneous estimation of betamethasone valerate and tazarotene with absorption factor method: Application for in-vitro and ex-vivo characterization of lipidic nanocarriers for topical delivery	Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy	235	-
49	Gorantla S., Singhvi G., Rapalli V.K., Waghule T., Dubey S.K., Saha R.N.	Targeted drug-delivery systems in the treatment of rheumatoid arthritis: recent advancement and clinical status	Therapeutic delivery	11	269-284
50	Siddhanth Hejmady., Gautam Singhvi., Ranendra Narayan Saha., Sunil Kumar Dubey	Regulatory aspects in process development and scale-up of nanopharmaceuticals	Therapeutic delivery	-	-
51	Youssef Mobarak., Fahd Alharbi., Nithyananthan Kannan., Sunil Thomas	Enhanced data communication models for real-time power system monitoring in a distributed platform	Transactions on Emerging Telecommunications Technologies	-	-
52	Mattara Chalill Subin, Abhilasha Singh, Venkatesan Kalaichelvi, Ramanujam Karthikeyan, and Chinnapalaniandi Periasamy	Design and Robustness Analysis of Intelligent Controllers for Commercial Greenhouse	Mechanical Sciences	11	299-316
53	Dutta M., Singh B., Joshi M., Das D., Subramani E., Maan M., Jana S.K., Sharma U., Das S., Dasgupta S., Ray C.D., Chakravarty B., Chaudhury K.	Author Correction: Metabolomics reveals perturbations in endometrium and serum of minimal and mild endometriosis (Scientific Reports, (2018), 8, 1, (6466), 10.1038/s41598-018-23954-7)	Scientific Reports	10	-
54	Drishti Dinesh Bhagchandani, Rishi Pramod Babu, Jayesh M. Sonawane, Namita Khanna, Soumya Pandit, Dipak A. Jadhav, Santimoy Khilari and Ram Prasad	A Comprehensive Understanding of Electro-Fermentation	Fermentation	6	1-31
55	Thinking with feeling: Children's emotional orientations to public life Vinnarasan Aruldoss, Sevasti-Melissa Nolas, Christos Varvantakis	Thinking with Feeling: Children's Emotional Orientations to Public Life	Childhood	-	-
56	Mahima Raina, Eunae Cho, Kamlesh Singh	Towards Contextual Understanding: Antecedents of Work-Family Interface in India	Materials Today: Proceedings	28	852-855
57	R.Udayakumar, N.K.Miller Jothi, Saurav Saboo, Naseef Sadhik	Turbocharging in ceramic coated engines using Rankine cycle for automotive use – An inceptive study	Materials Today: Proceedings	28	991-997
58	Subin Mattara Chalill R Karthikeyan	Upgradation of Conventional Commercial Greenhouse Using Climate Control Module to Reduce Energy Consumption	International Journal of Engineering Research and Technology	13	1709-1723
59	Udayakumar Rajamanickam., Yasho Vinay Pipada	Impact of Mixed Flow Turbines on the Efficiency of Automotive Turbocharger Applications	International Journal of Mechanical Engineering and Robotics Research	9	791-796

S.No	Authors	Article Title	Journal Name	Vol_No	Pages
60	Somasundaram R., Arumugam S., Sood N.	Salt stress-responsive protein interaction in hordeum vulgare	Walailak Journal of Science and Technology	17	285-292
61	K Nithya., Amartya Das Sharma., Vijayakumar Balakrishnan	A Framework for Storage and Retrieval of Distributed Vector Graphics Objects	International Journal of Advanced Science and Technology	29	681-695
62	K. Nithya, P. Vidyadhari, P. Padmanabham, B. Vijayakumar	Design Considerations for Storage and Content-Based Retrieval of Distributed Music Audio Objects	International Journal of Advanced Science and Technology	29	11195-11204
63	K. Rathina, C. Senthamil Selvi, M. Umadevi, S. Karthiyayini, Ramalatha Marimuthu, and R. Mahalakshmi	Thermo physical and spectroscopic studies on aqueous mixtures of PVP with inorganic salts	AIP Conference Proceedings	2270	-
64	Yogesh Prabhu, S Vincent, S Manulal, Adithya Nair, Jatin Bhatt	Cu-Zr-Ti-Al Metallic Glass: Thermodynamic prediction, Synthesis, and Biocorrosion Studies	SSRN Electronic Journal		1-3
65	Amol Prakash Pawar, Jyothi Yadav, Nisar Ahmad Mir, Eldhose lype, Krishnan Rangan, Sumati Anthal, Rajni Kantd and Indresh Kumar	Direct catalytic synthesis of β -(C3)-substituted pyrroles: a complementary addition to the Paal-Knorr reaction	Chemical Communications	-	-
66	Mukesh Singh Tomar , Shashank Khurana	Estimating Pyrolysis Kinetics Parameters of Wooden Pallets Commonly Used in Goods Transport Vehicles	Chemical Data Collections	30	100539
67	Kun Chen., P Velmurugan., Adhir Baran Chattopadhyay	Rigorous Mathematical Steps for Sensitivity Analysis of High Impedance Ground Fault Detection in Power Distribution Systems	Cogent Engineering	7	1-16
68	Perumal Velmurugan & Adhir Baran Chattopadhyay , N. Prabakaran	Sensitivity analysis of a single phase to ground fault system in connection with high impedance faults: A case study	Cogent Engineering	7	-
69	A Akshai., Aisha Abdul Raouf., Rajib Ghosh Chaudhuri	Importance of interfacial and rheological properties in the suppression of uniform deposition to coffee ring pattern of zinc oxide nanofluids in the presence of anionic surfactants	Colloid and Polymer Science	-	1-8
70	Muthalagu R., Bolimera A., Kalaichelvi V.	Lane detection technique based on perspective transformation and histogram analysis for self-driving cars	Computers and Electrical Engineering	85	-
71	Raja Muthalagu., Anudeepsekhar Bolimera., Kalaichelvi Venkatesan	Lane detection technique based on perspective transformation and histogram analysis for self-driving cars	Computers and Electrical Engineering	85	-
72	Sunil K. Dubey, Monika Jindal, Shakti Nagpal, Ranendra N. Saha, Gautam Singhvi, Amit Anand, Kowthavarapu V. Krishna	A Systematic Review on Analytical Methods to Determine Chiral and Achiral Forms of Venlafaxine and its Metabolite O-desmethylvenlafaxine	Current Pharmaceutical Analysis	16	474 - 486
73	Milu Mary Philip , Amrutha Seshadri , and B. Vijayakumar	Microservices Centric Architectural Model for Handling Data Stream Oriented Applications	Cybernetics and Information Technologies	20	32 -44
74	T R Koyadeen., A Kumar	Design of Single Molecule Aromatic Molecular Switches With Metal Electrodes-A Computational	Digest Journal of Nanomaterials and	15	447-458

S.No	Authors	Article Title	Journal Name	Vol_No	Pages
		Approach	Biostructures		
75	Syed F Faisal., Abdul R Beig., Sunil Thomas	Time Domain Particle Swarm Optimization of PI Controllers for Bidirectional VSC HVDC Light System	Energies	13	1-15

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Pilani Campus

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List of Papers presented in various conference/ seminar by faculty members during 2020

Pilani Campus

i) National:

1. Prof. Shilpi Garg delivered an invited talk on " Deciphering the importance of Fe-S cluster biogenesis pathway in asexual and sexual stages of Plasmodium" at the National Workshop on Skill based entomology (NWSBE) held from January 27-29, 2020 at Department of Zoology, University of Rajasthan Jaipur.
2. Rawat S., Mittal R.K., Satapathy A (2020). "Experimental Study on Waste Tire Chips-Reinforced Sand using Cyclic Plate Load Test", Proceedings of Indian Geotechnical Conference 2020, at Andhra University College of Engineering, Visakhapatnam, during December 17-19, 2020.
3. Gupta R (2020). "Water sustainability: 5 trillion-dollar economy", Administrative Staff College of India in partnership with the Research and Innovation Circle of Hyderabad (RICH) and Government of Telangana; INK@WASH (Innovations and New Knowledge in Water, Sanitation & Hygiene), 30-31 Jan., 2020.
4. A K Pani attended and presented a paper at 2nd International Conference on Data, Engineering and Applications (IDEA), 2020 held at RGPV, Bhopal.
5. Prof. Ram Kinkar Roy Chaired a session in the international conference titled 'Structure and Dynamics of Molecular and Condensed Matter Systems (ICSD-2020)', organized by IISER Kolkata in Puri, March 1-3, 2020.
6. Indranil Misra, Mukesh Kumar Rohil, S. Manthira Moorthi and Debajyoti Dhar, "SPRINT: Spectra Preserving Reflectance Image Fusion Technique for Landsat-8 OLI Panchromatic and Resourcesat-2A LISS-3 Multispectral Data", ISRS-ISG National Symposium on Remote Sensing for Environmental Monitoring & Climate Change Assessment: Opportunities and Challenges (ISRSNS 2020), December 18-19, 2020, SAC-ISRO, Ahmedabad, India.
7. Dr. Rahul Arora has attended three days' National conference (online) on "Financial Implications of COVID-19 on India with special reference to Punjab" from 03-05 June 2020 organized by Gujranwala Guru Nanak Khalsa College, Ludhiana, Punjab. India.
8. Dr. Rahul Arora has attended three days' National Level Workshop on "Structure Equation Modelling using AMOS" from 24-26 August 2020 held in a virtual mode by Department of Statistics, KC College, Mumbai, India
9. Dr. Rahul Arora has attended one-day national webinar on "Naya Kshitij: NEP 2020" held on November 7, 2020 organized by Teaching Learning Centre, BITS Pilani, Pilani Campus, Rajasthan. India.
10. "Millimeter Wave Wireless System Modeling with Best Channel Selection Policy," Tooba M. S., Kartik Shrivastava, B. Sainath, To appear in IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS) (WiE track), IIIT, New Delhi, Dec. 2020.
11. "Interference-Constrained Power Adaptive Decode-and-Forward Relaying Policy: Design and Performance Analysis," Rahul Sharma, B. Sainath, To appear in IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), IIIT, New Delhi, Dec. 2020.
12. "A Comparative Error Performance Study of Power Adaptive Regenerative Relaying Policy, and Benchmark Relaying Policies," Rahul Sharma, B. Sainath, To appear in 17th IEEE India Council International Conference INDICON Conference, Netaji Subhas University of Technology (NUST), New Delhi, Dec. 2020.
13. "Green Satellite Communication Link Design, Optimization, and Performance Analysis," Nishant Gupta, Sainath Bitragunta, To appear in 7th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), MNNIT, Prayagraj, Nov. 2020.
14. "Student Feedback Data Analytics for Smart Teaching and Learning," Sainath Bitragunta, K. B. Ravi Teja, presented at the International Conference on Best Teaching Practices for Engaged Student Learning, BITS Goa campus, Feb. 13-15, 2020.
15. Premsai Regalla and Praveen Kumar A V, Application of a Cylindrical Dielectric Resonator as an Angular Displacement Sensor, 17th edition of the International Symposium on Antennas and Propagation (APSYM2020), Cochin, Kerala, India (presented).
16. Abhas Singh, Gurram Mahanth Kumar, and Abhijit Asati, "Controller Architecture for Memory BIST Algorithms" IEEE International Conference on Electrical, Electronics and Computer Science, (SCEECS 2020), MANIT Bhopal, 22-23 February 2020.
17. Prateek Sikka, Abhijit Asati and Chandra Shekhar, " High-Speed and Area-Efficient Sobel edge Detector on FPGA for Artificial Intelligence and Machine Learning Applications" International Conference on Automation, Signal Processing, Instrumentation and Control (ICASIC 2020), Vellore Institute of Technology, Vellore, 27-28 February 2020.

18. Sunita Panda, Samiksha Sharma and Abhijit Asati, "Integrated Clock Gating Analysis of TG Based D Flip-Flop for Different Technology Nodes," VLSI, Communication and Signal Processing (VCAS 2020), Virtual Format, 9-11 October 2020.
19. Prateek Sikka, Abhijit R Asati and Chandra Shekhar, "Low Area, High Throughput Field Programmable Gate Array Implementation of Microprocessor without Interlocked Pipeline Stages" VLSI, Communication and Signal Processing (VCAS 2020), Virtual Format, 9-11 October 2020.
20. Sunita Panda, Samiksha Sharma, and Abhijit Asati, "Clock Gating Analysis of TG Based D Flip-Flop for Different Technology Nodes," UPCON-2020, Virtual Format, 27-29 November 2020.
21. Prateek Sikka, Abhijit R Asati and Chandra Shekhar, "Area-optimal FPGA implementation of the YOLO v2 algorithm using High-Level Synthesis Low Area," UPCON 2020, Virtual Format, 27-29 November 2020
22. Sandeep Joshi, B. R. Manoj, and S. P. Dash, "Buffer-Aided AF cooperative relaying network with NOMA transmission scheme," accepted for publication in Proc. IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Delhi, India, Dec. 14-17, 2020.
23. V. Hassija, V. Gupta, V. Chamola and S. Kanhare, "A Blockchain-based- Framework for Energy Trading between Solar Powered Base Stations and Grid", ACM MobiHoc 2020 (online mode)
24. Praveen Kumar Sharma, Navneet Gupta, and Plamen I. Dankov, "Wideband Transmission Line Characterization of Polydimethylsiloxane (PDMS) as a Wearable Antenna Substrate", 6th IEEE-Int. Conf. On Electronics Computing and Communication Technologies (IEEE-CONECCT 2020), Bangalore, page 1298-1301, July 2-4 2020.
25. Sujan Yenuganti, "Performance Enhancement in Stainless steel Pressure Sensor", in proceedings of International Conference on Modelling, Simulation and Intelligent Computing (MoSICom-2020), January 29-31, 2020, BITS Pilani, Dubai campus, Dubai.
26. Poonam Poonia, Pawan K. Ajmera, Vijayendra Shende, Palmprint Recognition using Robust Template Matching, Procedia Computer Science, Volume 167, 2020, Pages 727-736, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2020.03.338>.
27. P. Poonia, O. G. Deshmukh and P. K. Ajmera, "Adaptive Quality Enhancement Fingerprint Analysis," 2020 3rd International Conference on Emerging Technologies in Computer Engineering: Machine Learning and Internet of Things (ICETCE), Jaipur, India, 2020, pp. 149-153, doi: 10.1109/ICETCE48199.2020.9091760.
28. "High Alpha Maneuvering with a Laterally Asymmetric Fighter Aircraft", Khanna A. and Mukherjee B.K., IEEE International Conference on Power Instrumentation Control and Computing, Thrissur, Kerala, December 2020.
29. "Real-Time Air Quality Estimation from Station Data Using Extended Fractional Kalman Filter", by Mukherjee B.K. and Metia S., International Conference on Modelling, Simulation and Intelligent Computing, BITS Pilani Dubai Campus, Dubai, January 2020.
30. Akhilesh K Mishra, Puneet Mishra, and H.D. Mathur, "Robust Non-Integer Control of a Nonlinear Two-Area Interconnected Power System subjected to Large Parametric Variations," 2020 Proceedings of International Conference on Communication and Artificial Intelligence - ICCAI 2020, Mathura, Sept 17-18, 2020. (to be published in V. Goyal, M. Gupta, A. Trivedi, M. L. Kolhe (eds.), Lecture Notes in Networks and Systems, Springer).
31. Akhilesh K Mishra, Puneet Mishra, and H.D. Mathur, "Fractional Order Load Frequency control of a Two-Area Interconnected Power System with Uncertain Actuator Nonlinearities," 2020 Proceedings of International Conference on Communication and Artificial Intelligence - ICCAI 2020, Mathura, Sept 17-18, 2020. (to be published in V. Goyal, M. Gupta, A. Trivedi, M. L. Kolhe (eds.), Lecture Notes in Networks and Systems, Springer).
32. Akhilesh K Mishra and Puneet Mishra, "Load Frequency control of a Non-linear Power System via Demand Response Control Strategy Based Fractional Order Fuzzy Controller," 21st National Power Systems Conference (NPSC 2020), IIT Gandhinagar, Gujrat, Dec 17-19, 2020.
33. Anusha Kumar and Puneet Mishra, "Analysis of an Adaptive Fuzzy Control Scheme: Application to a Lower Limb Exoskeleton," 2020 IEEE INDICON, Delhi, Dec 11-13, 2020.
34. Kanika, Nitin Chaturvedi, and S. Gurunayanan, "Logic in Memory Design using Spin Hall Effect Assisted Magnetic Tunnel Junction" at 33rd International Conference on VLSI Design & The 19th International Conference on Embedded Design (VLSID 2020), Jan 4-8, Bengaluru, 2020.
35. Gupta R, Rastogi, A, Shenoy, M V, Sridhar, S, Gupta A, "Quantitative Analysis of Crime using GIS for Crime against women", 6th World Conference on Women's Studies (WCWS 2020), 27th -28th July 2020.
36. HP Agrawal, H O Bansal, and Y S Sisodia, "Development of an Intelligent POD Controller to Mitigate Power Oscillations", IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC), VNIT, Nagpur, India, Sep 25-26, 2020.

37. Sangeeta Sharma and Arpan Bumb, "Marketing at the Bottom of the Pyramid: Overcoming Challenges through MICMAC Analysis". Conference on Managing during Turbulent Times (During and Beyond Covid-19) at ITM Business School , Kharghar Navi Mumbai on 25 September 2020.
38. Poonam Vyas and Sangeeta Sharma, "Communication Barriers Faced by Tribal Secondary School Students in Rajasthan". National Conference on Sustainable Development Goals: The way forward towards quality education, gender equality, affordable and clean energy in India at MNIT Jaipur from 10-11 September, 2020.
39. Sangeeta Sharma, "Strengthening the ties: SIP for Japanese delegates to bolster culture exchange". National Conference on Sustainable Development Goals: The way forward towards quality education, gender equality, affordable and clean energy in India at MNIT Jaipur from 10-11 September, 2020.
40. Shrija, Srinivaan and Sushila Shekhawat. Where are they? Position of Women in Law Enforcement in the Online National Conference on Sustainable Development Goals jointly organized by Department of Humanities and Social Sciences, MNIT Jaipur and National Institute of Technology, Uttarakhand in academic collaboration with The Indian Econometric Society, New Delhi on 10 – 11 September, 2020.
41. Das, Madhurima "Responsible Parenting: Theories, Praxis and COVID." National Thermal Power Corporation (NTPC), Khargone (India), May 2020.
42. Sailaja Nandigama and Kumar Sankar Bhattacharya. "Does Responsibilization of Forest Dependent People Lead to Better Forest Management? A Comparative Qualitative Case Study of the Politics of Forest Rights Recognition in two States of India.". Jaipur National University, The National Seminar on Tribal Development, Jaipur 11th January, 2020.
43. Aayushi Malhotra and Sailaja Nandigama. "Revisiting the mutual reciprocity of human-ecological systems: Integrating extensive agriculture and transhumant pastoralism in the North Indian states of India." Jaipur National University, The National Seminar on Tribal Development, Jaipur 11th January, 2020.
44. Mayuresh Vijay Bhise and Sailaja Nandigama. "Tribal Development: Experiences, Problems and Challenges." Jaipur National University, The National Seminar on Tribal Development, Jaipur 11th January, 2020.
45. Divyum Sharma , Workshop on Additive Combinatorics, ICTS Bengaluru, Feb 24-29, 2020
46. Rakhee , Short-term online course on Optimization Theory, Methods and Applications, IIT Roorkee (online), Aug 18-20, 2020.
47. Online STTP on Flow, Energy and Combustion, December 21-25, 2020, Organized by SVNIT Surat, Dr. Aneesh AM.
48. Dr. Jayashree Mahesh of Department of Management participated in Academy of Management Discoveries Workshop by Prof. Peter Bamberger, INDAM, Indian Institute of Management, Tiruchirappalli on January 02, 2020.
49. Jayashree Mahesh & Anil K. Bhat, 'An Interpretive-Research Insight into Values-Schema of Generation Z and its Implication for Employee Engagement'. Paper presented at the 6th Biennial Conference of the Indian Academy of Management (INDAM) Architecting Indian Management Scholarship in The Era of Disruption, held at Indian Institute of Management Tiruchirappalli, January 2-4, 2020.
50. Unnikrishnan P M, Jyoti Tikoria & Arun Kumar Agariya (2020) "Business Excellence in Indian SMEs: Issues and Challenges", Published in proceedings of International Conference on Globalizing Indian Thought held in IIM-Kozhikode, during 16-18 January, 2020, pp. 44-50.
51. Dr. Jayashree Mahesh of Department of Management participated in the 'International Conference on Best Teaching Practices for Engaged Student Learning' organized by Teaching Learning Centre (TLC) in collaboration with the three campuses of TLC at BITS Pilani, KK Birla Goa Campus between 12 -15 February, 2020.
52. Sharma, N. & Dutta, N. 2020. "Technology in Omnichannel Retailing: Exploring Agenda for Future Research" in the Pacific Asia Conference on Information Systems (PACIS) organized by the Association for Information Systems (AIS) virtually in Dubai from Jun 20, 2020 to Jun 24, 2020 (PACIS 2020 Proceedings. 26), available at AIS Electronic Library (AISeL). <https://aisel.aisnet.org/pacis2020/26>.
53. Dutta, N., & Sharma, A. 2020. "Literature Review on Showrooming: Exploring Future Direction of Research" in the 2020 AMA Summer Academic Conference (Summer AMA) organized by American Marketing Association, virtually (Originally planned at San Francisco, California, United States) from Aug 18, 2020 to Aug 20, 2020 (ISBN-13: 978-0-87757-008-0), Vol. 31, pp. 393-395.
54. Naim, M. F. (2020). Interplay of resonant leadership and employee wellbeing in digital economy: Towards a conceptual model. In Proceedings of International Conference of Sustainability and Equity Digital Society, (23-25 November, 2020).

55. Sheikhar, Chander and Matai, Rajesh (2020). "The linkages between Spare-parts Management and Maintenance Management in Army Supply Chain of Vehicles" in International Conference on Evolution in Manufacturing (ICEM 2020), MNIT Jaipur, December 10-12, 2020.
56. J., Krishna Manasvia and Matai, Rajesh (2020). "Agri-fresh Supply Chain Management: A Systematic Literature Review" in International Conference on Evolution in Manufacturing (ICEM 2020), MNIT Jaipur, December 10-12, 2020.
57. Joshi, Aman K. and Matai, Rajesh (2020). "Cloud computing adoption in Indian MSME manufacturing sector: A Study and Future agenda" in International Conference on Evolution in Manufacturing (ICEM 2020), MNIT Jaipur, December 10-12, 2020.
58. Hari Om Bansal and Praveen Goyal (2020), "Enablers and Barriers of Electric Vehicle in India: A Review", IEE International Symposium on Sustainable Energy, Signal processing & Cyber Security, Organized by Department of Electrical & Electronics Engineering School of Engineering & Technology, GIET University, Gunpur, India. 16-17 December 2020.
59. Leela Rani and Avinash Gautam (2020), Using Market Basket Analysis for a Retail Consumer Cooperative, presented at 6th International Management Conference on "Advances in Management through Research, Innovation & Technology (AMRIT)" from 16-18 December 2020 (held virtually).
60. Dr. Achint Nigam participated in startup and entrepreneurship at BITS Pilani, 27-28 February 2020.
61. Yadav, N. (2020), "Case Method as an Experiential Learning Tool for Management Courses", International Conference on Best Teaching Practices for Engaged Student Learning, Organized by Teaching Learning Center, Goa, India February 13-15, 2020.
62. Dr. Achint Nigam participated in Design Thinking workshop by Dr. Pavan Soni at BITS Pilani – 10-18 June 2020.
63. Dr. Jayashree Mahesh of Department of Management participated in the "The Republic of Letters' -A virtual conference for the best minds in learning to reboot and redesign higher education in India, June 24-26, 2020 organized by Ashoka University and Harappa Education.
64. Dutta, N. & Bhat, A. 2020. "Use of Social Media in Higher Education: A Systematic Literature Review" in the 4th International Marketing Conference on Marketing, Technology & Society (ICMTS 2020) organized by Indian Institute of Management Kozhikode (IIM-K) at IIM-K campus from Dec 07, 2020 to Dec 09, 2020.
65. Sharma, N. & Dutta, N. 2020. "Technology for Omni-Channel Retailing: A Systematic Literature Review" in the 4th International Marketing Conference on Marketing, Technology & Society (ICMTS 2020) organized by Indian Institute of Management Kozhikode (IIM-K) at IIM-K campus from Dec 07, 2020 to Dec 09, 2020.
66. Banoth Karan Kumar, Faheem, Suraj Pyarelal Gupta, K.V.G. Chandrashekar, Murugesan Sankaranarayanan, presented a paper, "In-silico target identification of novel anti-leishmanial β -carboline analogues" in Indian Society for Chemists and Biologists Conference, from January 21-24, 2020 at Nirma Institute of Pharmacy International Conference, Ahmedabad.
67. Faheem, Suraj Pyarelal Gupta, Banoth Karan Kumar, K.V.G. Chandrashekar, Murugesan Sankaranarayanan, presented a paper, "Design and In-Silico study of novel Isatin analogues as potential anti-HIV agents with extended activity against mutant strains" in Indian Society for Chemists and Biologists Conference, from January 21-24, 2020 at Nirma Institute of Pharmacy International Conference, Ahmedabad.
68. Suraj Pyarelal Gupta, Faheem, Banoth Karan Kumar, Murugesan Sankaranarayanan, presented a paper, "In Silico Target Identification Study of Novel Anti-Leishmanial Agents" in Indian Society for Chemists and Biologists Conference, from January 21-24, 2020 at Nirma Institute of Pharmacy International Conference, Ahmedabad.
69. Adinarayana Nandikolla, Singireddi Srinivasarao, Shashidhar Nizalapur, Sankaranarayanan Murugesan and Kondapalli Venkata Gowri Chandra Sekhar, presented a paper, "Design, synthesis and biological evaluation of 2-aminobenzimidazoles as Quorum Sensing inhibitors in Pseudomonas aeruginosa" in Indian Society for Chemists and Biologists Conference, from January 21-24, 2020 at Nirma Institute of Pharmacy International Conference, Ahmedabad.
70. Richa Shrivastava attended Hands-on Training Program for Biopharmaceutical Product Development, from February 03-07, 2020 at ICT Mumbai.
71. Gautam Singhvi presented a paper, "BCS and IVIVC for pharmaceutical product development" in A Two-Day Workshop On: Pharmacokinetic & Pharmacodynamic Modeling and Simulation, from at BITS Pilani, Pilani Campus. 24-25th February 2020.
72. Gautam Singhvi attended a One Week Online Short-Term Course on "Advances in Chemical, Biochemical and Allied Industries", from November 05-09, 2020 (Virtual).
73. Gautam Singhvi attended a conference on Nutraceuticals: Building Consumer Confidence with Scientific Reasoning and Evidence, on September 30, 2020 (Virtual).

74. Gautam Singhvi attended a conference on Naya Kshitij: NEP 2020 for Higher Education Implementation, Preparedness, Challenges and Way-Forward, on November 07, 2020 (Virtual).
75. Murali M Pandey attended a Virtual Conference on Regulatory Aspects and Intellectual Property Rights in Pharmaceuticals on November 28, 2020 (Virtual).

ii) International:

1. Bhanot, V., Fadanavis, S.V., Shobham and Panwar, J. 2020. Can Similarities Between Plastics and Cuticular Wax Facilitate the myco-degradation of Plastics. In: "ASM Microbe 2020", Chicago, Illinois, USA. June 18-22, 2020 (Online).
2. Prof AK Das participated in the Vaibhav Summit themed 'Tuberculosis, Malaria & Leishmaniasis', wherein he was the Panel Moderator for the 'Malaria session'. For the Global Summit of NRI Researchers called Vaishvik Bhartiya Vaigyanik (Vaibhav) Summit, BITS Pilani was selected as one of the champion institutes to conduct the Vaibhav Summit on infectious diseases under the Pharmaceuticals and Biotechnology vertical.
3. Misra, T., Tare, M., Jha, P.N. (2020). Investigating the role of bacterial amyloids in biofilm formation and pathogenesis in-vivo. 5th Asia Pacific Drosophila Research Conference, Pune, India."
4. Narwal, S., Rai, A., Tare, M. (2020). Testing neuroprotective potentials of an Ayurvedic compound in Drosophila melanogaster model of Parkinson's Disease" 5th Asia Pacific Drosophila Research Conference, Pune, India."
5. Prof. PR Deepa attended an International Conference, Chem Bio 2020, organized online by IISER-Tirupati. The conference included eminent speakers from research labs and industry from India and abroad, in the frontier areas of Biological Sciences.
6. Prof. AK Das participated in panel discussion in Virtual keystone Symposium Event: The Malaria Endgame, held on April 22, 2020.
7. Prof. AK Das participated in JIO web talk on 'Internationalization of higher education in the post COVID19 era: Challenges and Opportunities for India' by Dr. Allan E. Goodman, President & CEO, Institute of International Education and Dr. Francisco Marmolejo, Education Advisor, Chairperson's Office, Qatar Foundation & former Lead, Tertiary Education, World Bank – India held on 14 may 2020.
8. Tare, M., Gogia, N., Anuradha, C.V., Singh, A. (2020). A ubiquitin ligase, cul-4 regulate Retinal Differentiation in developing Drosophila eye. 5th Asia Pacific Drosophila Research Conference, Pune, India".
9. Shah B., Chaurasia D. and Singh A. P (2020). "Wastewater allocation and pricing model for the efficient functioning of CETP serving a textile industrial cluster", The 3rd International Conference on Trends and Recent Advances in Civil Engineering, TRACE 2020 – Online 20th – 21st August 2020, Noida, India.
10. Shimpi V., Sivasubramanianand M. V. R., and Singh S.B (2020). "Field Measurement and Analytical Modeling of Masonry Arch Skew Bridges", International conference on Structural Analysis of Historical Structures, Barcelona.
11. Tyagi G., Singhal A., Routroy S., Bhunia D., Lahoti M., and Manish V. S (2020). "A Review on Sustainable Utilization of Industrial Wastes in Radiation Shielding Concrete", 3rd ITCS conference, NITTTTR Chandigarh, 19-21st February, 2020.
12. Tyagi G., Singhal A., Routroy S., and Bhunia D (2020). "A critical review on the utilization of Electric Arc Furnace Slag: Application, Challenges and Prospects", 2nd CRSIDE (ASCE) conference, Kolkata India, 2-4th March, 2020.
13. Bhaskar J. K., and Bhunia D (2020). "Fortification of Masonry Infill Walls Susceptible to Earthquakes", 2nd CRSIDE (ASCE) conference, Kolkata India, 2-4th March, 2020.
14. Gupta D., and Lahoti M (2020). "A Review on Application of Phase Change Material (PCM) for Energy Efficient Infrastructure", 2nd CRSIDE (ASCE) conference, Kolkata India, 2-4th March, 2020.
15. Vidyarthi A., and Lahoti M (2020). "A Review on Application of FTIR Spectroscopy in the Characterization of Geopolymers", 2nd CRSIDE (ASCE) conference, Kolkata India, 2-4th March, 2020.
16. Godhat P., Agarwala U., Shah K., Bajpai R., and Lahoti M (2020). "Utilization of Copper Tailings and Marble Dust Wastes to Produce Economical and Environmentally Friendly Concrete", 2nd CRSIDE (ASCE) conference, Kolkata India, 2-4th March, 2020.
17. Singhal A., Singh A., and Gupta R (2020). "3D Prediction of Pollutant Fluoride in Semi-Arid Region for a Sustainable Planning", Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies" (CRSIDE2020) Kolkata, March 2-4, 2020.
18. Khan F. M., and Gupta R (2020). "R scherichia coli (E. coli) as an indicator of fecal contamination", The 3rd International Conference on Sustainable Development of Water and Environment (ICSDWE2020), Inha University, South Korea, 13th - 14th January 2020.

19. Gupta R (2020). "Global Water Management: Green Methods", 4th edition of VBRI "Translational Research & Innovation Symposium" with the theme on Sustainable technologies for healthcare and environment, 10th February, 2020 at VBRI Innovation Centre, New Delhi.
20. Gupta R., and Singhal A (2020). "3D Prediction of Pollutant Fluoride in Semi-Arid Region for a Sustainable Planning", Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies" (CRSIDE2020) Kolkata, March 2-4, 2020.
21. Gupta R (2020). "A Multi-Sustainable Rainwater Harvesting for Safe Drinking Water", Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies" (CRSIDE2020) Kolkata, March 2-4, 2020.
22. Gupta R (2020). "Comparison of Different Spatial Interpolation Techniques to Thematic Mapping of Socio Economic Causes of Crime against Women", 2020 Systems and Information Engineering Design Symposium (SIEDS), Charlottesville, VA, USA, 2020, pp. 1-6, DOI: 10.1109/SIEDS49339.2020.9106690.
23. Gupta R., Kumar G., and Raya R (2020). "Application of ANN for Sustainability Index", 4th SEE SDEWES Conference on Sustainable development of Energy, water and Environment Systems, June 28 – July 3 2020 in Sarajevo, Bosnia and Herzegovina 2020.
24. Chaurasia D., Vidyarthi A., Shah B., and Gupta R (2020). "Structured dialogue for Scenario Development and Strategy Selection for Water Challenges in Dynamic Cities", 4th SEE SDEWES Conference on Sustainable development of Energy, water and Environment Systems, June 28 – July 3 2020 in Sarajevo, Bosnia and Herzegovina 2020.
25. Gupta R., Rastogi A., Shenoy M. V., Sridhar S., and Gupta A (2020). "Quantitative Analysis of Crime using GIS for Crime against Women", Overcoming Obstacles to Women's Subordination: Socialization, Law, and Structural Inequalities'; The 6th World conference on Women's studies 2020; 27th-29th July 2020, Colombo Srilanka.
26. Sajiith G., Gupta R., Charde M (2020). "Reduction of thermal discomfort and energy consumption: An AI approach", 15th SDEWES Conference on Sustainable development of Energy, Water and Environment Systems, Sept. 1-5 2020 in Cologne, Germany 2020.
27. Dr. Somak Chatterjee attended "Water Challenges post COVID-19", conducted from 7th -28th May,2020 by IIT Madras and ICCW, Madras.
28. A. Mehta, H. Sinha, P. Narang and M. Mandal, HIDEGAN: A Hyperspectral-guided Image Dehazing GAN, CVPR Workshops, USA, June 2020.
29. Anirudh Srinivasan, Sundaresan Raman, Early Blight Identification in Tomato Leaves Using Deep Learning, International Conference on Contemporary Computing and Applications, Feb 2020, AKTU, Lucknow, India.
30. Sundaresan Raman, Manoj Kannan, Demonstrating Key Concepts through Student-participated Classroom Activities in Computer Programming Course, Evidence based Teaching and Learning, Lilly Conference, Austin, TX Jan 2020.
31. Subham Kumar, Gaurang Bansal, Virendra Singh Shekhawat, "A Machine Learning Approach for Traffic Flow Provisioning in Software Defined Networks", The 34th International Conference on Information Networking (ICOIN 2020) January 7-10, 2020, Barcelona, Spain
32. Ritu Arora, Anand Wani, Ankur Vineet, Bhavik Dhandhalya, Yashvardhan Sharma, Sanjay Goel, "Continuous Conflict Prediction during Collaborative Software Development: A step-before Continuous Integration", Proceedings of the 3rd International Conference on Software Engineering and Information Management, ICSIM '20, ACM Publications, Sydney NSW Australia 12-15 January, pp. 105-109, 2020.
33. Harsh Sinha, Sakshi Kalra, and Yashvardhan Sharma, "Text-Convolutional Neural Networks for Fake News Detection in Tweets", 8th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2020), National Institute of Technology Karnataka, Surathkal, Karnataka, India, January 4 - 5, pp. 81-90, 2020.
34. Tarun Kumar and Yashvardhan Sharma, "Character aware Models with Similarity Learning for Metaphor Detection", The Second Workshop on Figurative Language Processing FigLang 2020, The 58th Annual Meeting of the Association for Computational Linguistics (ACL) Fig-Lang@ACL 2020 pp.116-125, July 9-10, 2020.
35. Naman Deep Srivastava, Sakshi Kalra and Yashvardhan Sharma, "Combating Online Hate: A Comparative Study on Identification of Hate Speech and Offensive Content in Social Media Text", 2020 IEEE Recent Advances in Intelligent Computational Systems (RAICS), IEEE, 3-5 December 2020.
36. Vishal Gupta, "Blended SPOC Teaching and Learning Model for Computer Programming Course: Insights and Defeating Challenges", 2020 International Conference on Engineering, Technology and Education (TALE2020).
37. Rathee S., Haribabu K., Patel P., Bhatia A., Gandhi U. (2020) Analysis and Performance Evaluation of Different Methods to Achieve Way-Point Enforcement in Hybrid SDN. In: Barolli L., Amato F., Moscato F.,

- Enokido T., Takizawa M. (eds) Web, Artificial Intelligence and Network Applications. WAINA 2020. Advances in Intelligent Systems and Computing, vol 1150. Springer, Cham. https://doi.org/10.1007/978-3-030-44038-1_18.
38. Indranil Misra, Mukesh Kumar Rohil, S. Manthira Moorthi and Debajyoti Dhar, "Mars Surface Multi-Decadal Change Detection using ISRO's Mars Color Camera (MCC) and Viking Orbiter images", 5th IAPR International Conference on Computer Vision & Image Processing (CVIP 2020), December 4-6, 2020, IIIT Allahabad, India.
 39. K. K. Sreelakshmi, J. Jennifer Ranjani, "A Non-Invasive approach for Driver Drowsiness Detection using Convolutional Neural Networks", Proceedings of the 8th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2020), NITK Surathkal, Jan 2020, published in Evolution in Computational Intelligence (Part of the Advances in Intelligent Systems and Computing book series), Springer, vol. 1176, pp. 135 – 143, 2020.
 40. Rajesh Kumar, "An attack tree template based on feature diagram hierarchy", 6th International Conference on dependability in sensors, cloud and bigdata systems and applications (DependSys 2020), 14 - 16 December 2020, Fiji .
 41. Rajesh Kumar, Siddhant Singh, Rohan Kela, "A quantitative risk analysis framework for advanced persistent threats", 13th International Symposium on Foundations & Practice of Security, Montreal, Canada, 1-2-3 December 2020.
 42. Dr. Rahul Arora has attended seven days' workshop on "Basics of Data Science using Python" from 15-21 June 2020 held in a virtual mode by FsCongress International Congress on Social Science, Ankara, Turkey and Blue Forskning International Research Society, India.
 43. Dr. Rahul Arora has attended two days' International webinar on "Smart Cities: Beyond the Pandemics" from 10-11 July 2020 organized by BITS Pilani, Pilani Campus, Rajasthan. India.
 44. Dr. Rahul Arora has attended two days' International workshop on "Frontier Analysis with DEA" from 06-07 August 2020 held in a virtual mode by Department of Economics, Panjab University, Chandigarh. India.
 45. Dr. Rahul Arora has attended two days' International conference on "Virtual International Conference on Circular Economy: Responsible Management for Sustainability and Circularity" from 14-15 December 2020 organized by University of Bradford, United Kingdom & Indian Institute of Management (IIM) Jammu, India.
 46. "STPAP: Source Transmit Power Adaptation Policy for Collaborative Wireless Systems," Vedit Jha, Sainath Bitragunta, To appear in TENCON Conference, OSAKA, JAPAN, Nov. 2020.
 47. "Positioning Outage Probability Analysis for Navigation Satellite Communication over Fading Channels," Sainath Bitragunta, To appear in TENCON Conference, OSAKA, JAPAN, Nov. 2020.
 48. "Spectrally Efficient Cooperative Visible Light Communication with Adaptive Power Sharing for a Generalized System," Umang Garg, Nithin Rahav J. K, B. Sainath, 29th Wireless and Optical Communications Conference (WOCC), Newark, NJ, USA, Jun. 2020.
 49. V. Hassija, A. Patel and V. Chamola, "Police FIR Registration and Tracking Using Consortium Blockchain", MOSICOM, Dubai, Jan 2020.
 50. D. Jaswanth, S. P. Dash, and Sandeep Joshi, "Optimal coverage analysis of a cellular device-to-device communication network," accepted for publication in Proc. IEEE 92nd Vehicular Technology Conference (VTC2020—Fall), Victoria, B.C., Canada, Oct. 4-7, 2020.
 51. Keshav. Raheja, Rohit Goel, and Abhijit Asati," An Improved DVFS Circuit & Error Correction Technique," Congress on Intelligent Systems (CIS 2020), World Conference Virtual Format, 4-6, September 2020.
 52. A. Rustagi, V. Chamola, and D. Singh, "RoadNurse: A Cloud Based Accident Detection and Emergency Relief Response Infrastructure", MOSICOM, Dubai, Jan 2020.
 53. V. Hassija, V. Saxena and V. Chamola "A Blockchain-based Framework for Drone-Mounted Base Stations in Tactile Internet Environment", IEEE INFOCOM, Toronto, Canada, Feb 2020.
 54. G. Bansal and V. Chamola, "Lightweight Authentication Protocol for Inter Base Station Communication in Heterogeneous Networks", IEEE INFOCOM, Toronto, Canada, Feb 2020.
 55. V. Hassija, V. Gupta, V. Chamola, and G.S.S. Chalapathi, "A Blockchain-based Framework for Secure Data Offloading in Tactile Internet Environment", IEEE IWCMC 2020, Limassol, Cyprus, June 2020.
 56. V. Hassija, V. Gupta, V. Chamola, and G.S.S. Chalapathi, "A Framework for Secure Vehicular Network using Advanced Blockchain", IEEE IWCMC 2020, Limassol, Cyprus, June 2020.
 57. Abhishek Joshi and Rahul Singhal, Hexagonal Monopole Antenna with Modified Ground Plane for Sub-6 GHz Communication Applications, 2020 Asia-Pacific Microwave Conference (APMC 2020) virtually in Hong Kong, 8 - 11 December 2020.

58. Ashish Kumar Verma and Rahul Singhal, Comparative Study of Translated Cross Dipole and Square Loop Frequency Selective Surfaces for Band Stop Characteristics in X-Band, 2020 Asia-Pacific Microwave Conference (APMC 2020) virtually in Hong Kong, 8 - 11 December 2020.
59. Himanshu Purohit, Pawan K. Ajmera, Multimodal Multilevel Fusion of Face Ear Iris with Multiple Classifications. In: Goel N., Hasan S., Kalaichelvi V. (eds) Modelling, Simulation, and Intelligent Computing. MoSICom 2020. Lecture Notes in Electrical Engineering, vol 659, pp 345-355, 2020. Springer, Singapore. https://doi.org/10.1007/978-981-15-4775-1_37.
60. Kartik Wardhan and S.M. Zafaruddin, "Simplified Performance Analysis of OWC system Over Atmospheric Turbulence with Pointing Errors", in the proceedings of 2020 IEEE 92nd Vehicular Technology Conference VTC2020-fall, Nov 2020, Victoria, BC Canada.
61. Pranay Bhardwaj and S.M. Zafaruddin, "Performance of Dual-Hop Relaying for THz-RF Wireless Link", to be presented at 2021 IEEE 93rd Vehicular Technology Conference VTC2021-Spring, 25-28 April, Helsinki, Finland.
62. P. Arora, and S. Shukla, "Self-referenced integrated plasmonic device based on engineered periodic nanostructures for sensing applications," SPIE Photonics West-2020, San Francisco, California (USA).
63. Alka Agrawal, Vishal Goyal, Puneet Mishra, "Study of Performance of Ant Bee Colony Optimized Fuzzy PID Controller to Control Two-Link Robotic Manipulator with Payload," 2020 Proceedings of Modelling, Simulation and Intelligent Computing (MoSICom 2020), Dubai, Jan 29-31, 2020, (DOI: 10.1007/978-981-15-4775-1_56).
64. Akshay Joshi and Anantha Krishna Chintanpalli "Level-dependent changes in concurrent vowel scores using the multi-layer perceptron", International Conference on Modeling, Simulation, and Intelligent Computing, BITS Pilani, Dubai, Jan 29-31 2020.
65. Akul Malhotra and Anantha Krishna Chintanpalli "A Real-Time Wavelet Filtering for ECG Baseline Wandering Removal", International Conference on Artificial Intelligence and Signal Processing, Fortune Murali Park, Vijayawada, Jan 10-12 2020.
66. T. Gakhar, A. Hazra, TiO₂-GO Field-Effect Transistors for Amplified Ethanol Sensing, IEEE International IoT, Electronics, and Mechatronics Conference (IEMTRONICS), 9-12th September 2020 at Vancouver, Canada
67. HP Agrawal, H O Bansal, and Y S Sisodia, "Power System Stability Optimization using Differential Evolution Tuned SSSC", IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC), VNIT, Nagpur, India, Sep 25-26, 2020.
68. A Gupta, P Jaiswal, HO Bansal, and R Kumar, "Modeling and analysis of V2G scheme: a Concept in Smart Grid", International Conference on Emerging Trends in Communication, Control and Computing, Lakshmangarh, India, Feb 21-22, 2020.
69. P Kumar K and H O Bansal, "Commercial sustainability of Vehicle-to-Grid Concept: An Overview", International Conference on Emerging Trends in Communication, Control and Computing, Lakshmangarh, India, Feb 21-22, 2020.
70. Kanika Monga, Nitin Chaturvedi, S Gurunaryanan, "Design of a Low Power 1T-1MTJ Non-Volatile SRAM Cell with Half-Select Free Operation" presented at 17th IEEE India Council International Conference (INDICON 2020).
71. Kanika Monga, Lakshaya Maheshwari, Nitin Chaturvedi, S Gurunaryanan, "Twin- Coupled Sense Amplifier to improve margin in 1T-1MTJ based MRAM array" presented at 24th International Symposium on VLSI Design and Test, (VDAT-2020).
72. KV Singh and HO Bansal, "PSIM based Simulation and Hardware Implementation of 1-Phase and 3-phase Shunt Active Filter Based on p-q Theory", International Conference on Emerging Trends in Communication, Control and Computing, Lakshmangarh, India, Feb 21-22, 2020.
73. Sisir Yadav, Ashish Patel, and Hitesh Datt Mathur, "Comparison of power losses for different control strategies of UPQC", in 2020 9th Power India International Conference (PIICON), IEEE, 2020, Murthal, India.
74. Sisir Yadav, Ashish Patel, and Hitesh Datt Mathur, "Comparison of power losses between UPQC and UPQC-DG", in 2020 17th IEEE India Council International Conference (INDICON), IEEE, 2020, New Delhi, India.
75. Satish Kumar Rai, H.D. Mathur, and Shazia Hasan, "Converter Efficiency Improvement of Islanded DC Microgrid with Converter Array", In the proceedings of International Conference on Modelling, Simulation & Intelligent Computing (MoSICom 2020), January 29-31, 2020, Dubai, UAE.
76. Sangeeta Sharma and Arpan Bumb, "Creativity in Advertising: Developing a model for willingness and believability." International Conference on Technology and Business Management (ICTBM-20) in Los Angeles, USA, from 12-13 June, 2020. Conference proceeding at <http://www.ictbm.org/ictbm20/ICTBM20CD/pb.pdf>

77. Sangeeta Sharma and Arpan Bumb, "Depiction of culture through advertising." 13th Global Studies Conference at Concordia University, Montreal, Canada, from 4-5 June 2020. More details at <https://cgscholar.com/community/communityprofiles/global-studies/communityupdates/120696>.
78. Sangeeta Sharma and Arpan Bumb, "Portrayal of Women and Children in Advertising-Review and Analysis". 4th International Marketing Conference on Marketing, Technology and Society at IIM Kozhikode, Kozhikode from 7-9 December 2020.
79. Kumar Neeraj Sachdev, "A Philosophical Perspective of Value-Oriented Conduct of Educators in Higher Education," online presentation at Seoul - International Conference on Social Sciences & Humanities (ICSSH), sponsored by Eurasia Research and organized by Social Science and Humanities Research Association (SSHRA) at Nine Tree Premier Hotel, Myeongdong, Seoul, South Korea during May 20-21, 2020 (Keynote Speaker)
80. Kumar Neeraj Sachdev, "An Account of Philosophical and Ethical Thinking in the Current Century," Online Presentation at 22nd International Conference on "Ethical Thinking: Past and Present (ETPP 2020/22)," sponsored by Institute of Ethics and Bioethics, University of Presov, Slovakia and Civic Association "Ethica" at Slovakia during October 15-16, 2020
81. Kumar Neeraj Sachdev, "An Analysis of an Ethical Conflict in Seller-Buyer Relationship in the Marketplace: A Philosophical Perspective," International Conference on Research in Business (ICRB 2020) on "Together Towards Tomorrow: Tapping the Tempo" held at India International Centre, New Delhi, India on February 16, 2020 (Best Paper Award)
82. Tanu Shukla, V. S. Nirban and Deepanjana Chakraborty, "Accountability for Quality Education", International Conference on Multi-Disciplinary Research Studies and Education, 29th-30th April, 2020, Kuala Lumpur, Malaysia
83. V. S. Nirban, Tanu Shukla, Divya Dosaya and Mounika P. Vavilala, "Role of Life Skills in Education for Sustainable Development", Education Beyond the Human (Comparative and International Education Society), 22nd-26th March, 2020, Miami, USA
84. Mounika P. Vavilala and Tanu Shukla, Well-being & School Engagement of Students at Secondary Level through Capability Approach, HDCA Conference, Jun 29-July 3, 2020, Auckland, New Zealand
85. Tanu Shukla, Madhurima Das and V. S. Nirban. "Evincing Gender Ecology in Indian Science Higher Education", International Conference on Gender and Sexuality, Colombo, Sri Lanka. during 15th-16th October 2020.
86. Sailaja Nandigama, Kumar Sankar Bhattacharya. Aayushi Malhotra, & Mayuresh Vijay Bhise. "Disappearing Spaces for Active Community Participation in Forest Management: A Comparative Study of Forest Rights Act Implementation in India". Paper presented at the FLARE Network (USA) Twitter Conference organized by the University of Michigan, USA held during 26-29 October, 2020.
87. Trilok Mathur , Virtual Global Congress on Sustainability for Growth and Development, Nilai University Malaysia and Galgotias University, India (online), July 18, 2020
88. Shivi Agarwal, Virtual Global Congress on Sustainability for Growth and Development, Nilai University Malaysia and Galgotias University, India (online), July 18, 2020
89. Krishnendra Shekhawat, NINTH INTERNATIONAL CONFERENCE ON DESIGN COMPUTING AND COGNITION (DCC'20), Georgia Institute of Technology, Atlanta, USA (online) Dec 15, 2020
90. Krishnendra Shekhawat, 25th International Conference of the Association for Computer-Aided Architectural Design Research in Asia, Faculty of Architecture Chulalongkorn University (online) Aug 5, 2020
91. Jitender Kumar, International Conference in Algebraic Graph Theory and Applications, Presidency University, KOLKATA (online) Nov 21-22, 2020
92. Jitender Kumar, International Conference on Number Theory and Discrete Mathematics, Ramanujan Mathematical Society (online) Dec 11-14, 2020
93. Ashish Tiwari, International Conference on Membrane Process Modeling, Gubkin Russian State University of Oil and Gas, Moscow, Russia (online) Dec 3-4, 2020.
94. MacKenzie Kellen and Deepak Saxena (2020), "Calm my Headspace: Motivations and barriers for adoption and usage of meditation apps during times of crisis", in Proceedings of the 20th International Conference on Electronic Business (ICEB 2020) held in University of Hong Kong, Hong Kong, during December 5-6, 2020.
95. Sharma N and Gaikwad AB, presented an E Poster, "Hyperglycemia-associated acute kidney injury increases the susceptibility towards neurological dysfunction: Role of Angiotensin II Type 2 Receptor and Angiotensin-converting Enzyme 2" in 57th ERA-EDTA Congress-Fully virtual-2020, from 06-09 June 2020 held at Virtual, Milan, Italy.

96. Sharma N and Gaikwad AB, presented a paper, "Ischemic renal injury-associated cardiac dysfunction in diabetic and non-diabetic rats: Role of depressor arm of RAS" in International Conference of Cardiovascular Sciences-2020 (ICCS-2020), from 21-23 February 2020 held at DPSRU-New Delhi, India.
97. Sankrityayan H, Malek V, Sharma N, Gaikwad AB, presented a paper, "Simultaneous inhibition of Nephrylsin and activation of ACE2 prevented diabetic cardiomyopathy" in International Conference of Cardiovascular Sciences-2020 (ICCS-2020), from 21-23 February 2020 held at DPSRU-New Delhi, India.
98. Hemant R Jadhav attended International Conference on Drug Discovery ICDD-2020, from 29 February- 3 March 2020 held at BITS Pilani, Hyderabad Campus.
99. Rajeev Taliyan attended International Conference of Cardiovascular Sciences-2020 (ICCS-2020), from 21-23 February 2020 held at DPSRU-New Delhi, India.
100. Rajeev Taliyan presented a paper, "Exploring the Synergistic Potential if Rosiglitazone and Suberanilohydroxamic Acid in a Mouse Model of Alzheimer Disease" in Advance in Alzheimer and Parkinson Disease: 2nd AAT-AD/PD™, from 01-05 April 2020 held at Vienna, Austria (Virtual).
101. Aniruddha Roy presented a paper, "Docetaxel and disulfiram loaded tumor extracellular pH-responsive nanocarrier for targeting cancer stem cells" in Vancouver Nanomedicine Day 2020, on 17 September, 2020 at University of British Columbia, Canada (Virtual).
102. Komal Daipule, Mallika Alvala, Banoth Karan Kumar, Murugesan Sankaranarayanan, Yong-Tang Zheng presented a paper, "In-vitro anti-HIV evaluation of novel amide and ether conjugates of 2, 3-diaryl-1, 3-thiazolidin-4-ones" in International Conference on Drug Discovery ICDD-2020, from 29 February - 3 March 2020 held at BITS Pilani, Hyderabad Campus.
103. Shivani Pola, Ramesh Ummani, Banoth Karan Kuma, Murugesan Sankaranarayanan, Achaiah Garlapati presented a paper, "Design, Synthesis, In-Silico Studies and Screening of Novel Chalcones and Their Pyrazoline Derivatives against Mycobacterium Tuberculosis" in International Conference on Drug Discovery ICDD-2020, from 29 February- 3 March 2020 held at BITS Pilani, Hyderabad Campus.
104. Banoth Karan Kumar, Faheem, Kondapalli Venkata Gowri Chandra Sekhar, Murugesan Sankaranarayanan presented a paper "Preliminary investigation of drug repurposing as a direction towards anti-Leishmanial drug discovery", in International Conference on Drug Discovery ICDD-2020, from 29 February- 3 March 2020 held at BITS Pilani, Hyderabad Campus.
105. Atish T. Paul attended International Conference on Drug Discovery ICDD-2020, from 29 February- 3 March 2020 held at BITS Pilani, Hyderabad Campus.
106. Rajeev Taliyan attended 5-days International e-Workshop on Good Clinical Practices & Health Economics, from 17-21 December 2020.
107. Swathi Konda, Murugesan Sankaranarayanan, Chaithanya Marapureddy and Karan Kumar Banoth presented a poster, "Synthesis, anti-inflammatory activity and in-silico studies of some new 3-((P-dimethylamino)-benzylidene hydrazinylidene)-1,3-dihydro-2H-indol-2-one derivatives" in Genetics, Geriatrics and Neurodegenerative Diseases Research (GeNeDis) 2020, Heraklion, Crete, Greece, from 8 -10 October 2020 at IEEE World Congress (Virtual).
108. Sandeep Sundriyal attended "2nd Research Workshop", organized by IPCD BITS-Pilani and Hiroshima University, on 20th November, 2020 (Virtual).
109. Prof. Navin Singh attended a SPARC workshop on DNA bubble formation: From Physics to Biological functions at Department of Physics, Banaras Hindu University, Varanasi (14-20 February, 2020).
110. Dr. Kaushar Vaidya presented a paper (Oral presentation) on Blue Straggler Populations of Open Clusters using Gaia DR2, at the Gaia Symposium: DR2 and Beyond organized by Indian Institute of Astrophysics in the online mode during November 2-6, 2020.
111. Ms. Aditi Mandal (co-authors: D. Sébilleau, R. Choubisa, S. Tricot) presented a paper (Oral presentation) on Brief description of Plasmon excitation within multiple scattering approach in Photoemission energy loss spectroscopy, in an International workshop and conference on Evolution of Electronic Structure Theory and Experimental Realization (EESTER 2020), jointly organized by SRMIST KTR (India), IIT Madras (India) and Uppsala University (Sweden), December 14 – 18, 2020.
112. Ms. Aditi Mandal (co-authors: D. Sébilleau, V. Kochetov, R. Choubisa, S. Tricot) presented a paper (Oral presentation) on Plasmon modelling in core-level photoemission within multiple scattering approach in 735th WE-Heraeus-Seminar on Exploring Quantum Many-Body Physics with Ultracold Atoms and Molecules, December 14 – 18, 2020.
113. On-grid system evaluation for EV charging stations using renewable sources of energy, 2020 IEEE International Power and Renewable Energy Conference organized by College of Engineering Karunagappally, Kollam, Kerala, Oct 30-31 and Nov 1, 2020., Rohan George Thomas, Saraswat, S.K., Rastogi Arpit, Digalwar, A. K.
114. Development of Assessment Model for Selection of Sustainable Energy Source in India: Hybrid Fuzzy MCDM Approach, International Conference on Intelligent and Fuzzy Systems (INFUS-2020), Held

- during 20-22 July 2020 at Istanbul, Turkey, pp. 649-657. Saraswat, S. K., Digalwar, A. K. and Yadav, S.S.
115. Development of a Shape Aware Path Planning Algorithm for a Mobile Robot, IEEE International Conference on Emerging Trends in Communication, Control and Computing (ICONC3 2020), Feb-21-22nd, Mody University Laxamangarh, India., Das, S. K., Dash, S. & Rout, B. K.
 116. Vibration Suppression Strategies for Non deformable Mettallic Strip for Robotic Assembly Operations, IEEE International Conference on Emerging Trends in Communication, Control and Computing (ICONC3 2020), Feb-21-22nd, Mody University Laxamangarh, India., Jalendra Chetan, Rout, B. K.
 117. Complete Scene Parsing for Autonomous Navigation in Unstructured Environments, 3rd IEEE International Conference on Intelligent Autonomous Systems 2020, Feb 26-29th, NTU Singapore., Anirudh S. Chakravarthy, Honnesh Rohmetra, Divyam Goel, Harshan Baskar, Prateek Garg, Rout B.K.
 118. Hyper parameter optimization on Viola Jones algorithm for gesture recognition, International conference on Modelling, Simulation and Intelligent Computing, (MoSICom) 2020, Jan 29-31, 2020, BITS Pilani Dubai Campus., Pande Aditya, Rout B.K. and Das S.K.
 119. Residual Vibration Suppression of Non-deformable Object for Robot-Assisted Assembly Operation Using Vision Sensor, Congress on Intelligent Systems, Sep 4-5, 2020, Jalendra Chetan, Rout B.K., Marathe, A.M.
 120. Modelling of Energy Consumption for Milling of Circular Geometry, 28th CIRP Conference on Life Cycle Engineering (accepted), S. S. Pawar, T. C. Bera, K. S. Sangwan.
 121. Solution for e-waste collection: vehicle routing optimization, International Conference on Industrial and Manufacturing Systems (CIMS - 2020), NIT Jalandhar, Punjab, INDIA (Accepted) Shailender Singh, Malhar Tidke, Mani Sankar Dasgupta and Srikanta Routroy.
 122. Developing cold chain for Indian Surimi supply chain, 6th IIR Conference on Sustainability and the cold chain, Nantes, France (Accepted), Farook Abdullah Sultan, Srikanta Routroy, MS Dasgupta, Souvik Bhattacharyya, Maitri Thakur, and Kristina N. Widell
 123. Six Sigma Enablers for Incoming Material Quality Improvement and their interaction in Supplier Domain for Indian Manufacturing Scenario, CoMSO2020: International Conference on Modeling, Simulations and Optimizations, NIT Silchar, India, August 3-5, 2020. Sudeep Pradhan, Ravi Reosekar and Srikanta Routroy.
 124. A critical review on the utilization of electric arc furnace slag: Applications, challenges and future prospects”, Second ASCE India Conference on “Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020)”, Kolkata, March 02-04, 2020., Gaurav Tyagi and Anupam Singhal, Srikanta Routroy, and Dipendu Bhunia.
 125. A Review on Sustainable Utilization of Industrial Wastes as Aggregates in Radiation Shielding Concrete, 3rd International Conference on Innovative Technologies for Clean and Sustainable Development, 19-21 February 2020, Chandigarh, India, Gaurav Tyagi and Anupam Singhal, Srikanta Routroy, Dipendu Bhunia Mukund Lahoti, Veluri S Manish.
 126. Performance evaluation of a multi-evaporator NH3-CO2 cascade refrigeration system with IHX for seafood processing industry, 14th IIR-Gustav Lorentzen Conference on Natural Refrigerants, Kyoto, Japan 2020, Santosh Kumar Saini, Mani Sankar Dasgupta, Kristina N. Widell, Souvik Bhattacharyya.
 127. Effect of motive nozzle exit position in a R-744 two phase ejector, 1st online international conference on recent advances in computational and experimental mechanics, ICRACEM 2020, IIT Kharagpur, Kapil Dev Choudhary, Mani Sankar Dasgupta, Shyam Sundar Yadav.
 128. Indo-German Center for Sustainable Manufacturing: A Collaboration Between Birla Institute of Technology and Science Pilani and Technische Universität Braunschweig, In: Sangwan K., Herrmann C. (eds) Enhancing Future Skills and Entrepreneurship. Sustainable Production, Life Cycle Engineering and Management. Springer, Cham. https://doi.org/10.1007/978-3-030-44248-4_1, Uhlig B., Leiden A., Sangwan K.S., Herrmann C.
 129. Sustainability Assessment of Sanitary Ware Supply Chain Using Life Cycle Assessment Framework—A Case Study, In: Sangwan K., Herrmann C. (eds) Enhancing Future Skills and Entrepreneurship. Sustainable Production, Life Cycle Engineering and Management. Springer, Cham. pp. 167-179. https://doi.org/10.1007/978-3-030-44248-4_17, Sangwan K.S., Choudhary K., Agarwal S.
 130. A Comparative Analysis of Surface Roughness Prediction Models Using Soft Computing Techniques, In: Sangwan K., Herrmann C. (eds) Enhancing Future Skills and Entrepreneurship. Sustainable Production, Life Cycle Engineering and Management. Springer, Cham. pp. 149-155. https://doi.org/10.1007/978-3-030-44248-4_15, Garg G.K., Pawanr S., Sangwan K.S.
 131. Development of an Electric-Load Intelligence System for Component Level Disaggregation to Improve Energy Efficiency of Machine Tools, In: Sangwan K., Herrmann C. (eds) Enhancing Future Skills and Entrepreneurship. Sustainable Production, Life Cycle Engineering and Management. Springer, Cham. pp. 117-129. https://doi.org/10.1007/978-3-030-44248-4_12, Sihag N., Sangwan K.S.

132. Continuous Kaizen Implementation to Improve Leanness: A Case Study of Indian Automotive Assembly Line, In: Sangwan K., Herrmann C. (eds) Enhancing Future Skills and Entrepreneurship. Sustainable Production, Life Cycle Engineering and Management. Springer, Cham. pp. 51-69. https://doi.org/10.1007/978-3-030-44248-4_6, Sangwa N.R., Sangwan K.S.
133. Lean Manufacturing Implementation in Ceramic Industry: A Case Study, In: Sangwan K., Herrmann C. (eds) Enhancing Future Skills and Entrepreneurship. Sustainable Production, Life Cycle Engineering and Management. Springer, Cham. pp 21-29. https://doi.org/10.1007/978-3-030-44248-4_3, Bhamu J., Bhadu J., Sangwan K.S.
134. Readiness self-assessment of cement industry for sustainable manufacturing implementation: a case study of India, *Procedia CIRP*, 90, 449-454. <https://doi.org/10.1016/j.procir.2020.02.042>, Vikrant Bhakar, Kuldip Singh Sangwan, Abhijeet K Digalwar.
135. Development of the Transversal Competencies in Learning Factories, *Procedia Manufacturing* 45, 349-354. <https://doi.org/10.1016/j.promfg.2020.04.031>, Devika, P Raj, A Venugopal, B Thiede, C Herrmann, KS Sangwan.
136. Integrating virtual and physical production processes in learning factories, *Procedia Manufacturing* 45, 121-127. <https://doi.org/10.1016/j.promfg.2020.04.082>, L Büth, M Juraschek, KS Sangwan, C Herrmann, S Thiede

K K Birla Goa Campus

i) National:

1. Vandana Tomar, Panchsheela Nogia, Namitha Nayak, Rajesh Mehrotra and Sandhya Mehrotra Plant Genetics and Genomics Conference, 23-24 January 2020, Organised by SRM Institute of Science and Technology, Chennai, Tamilnadu
2. MALABIKA BISWAS, AVIJIT DAS, NATIONAL SEMINAR ON ADVANCEMENT OF BIOLOGY IN THE 21ST CENTURY (February 28-29, 2020) ;Visva-Bharati, Santiniketan, Organised by Department of Zoology, Visva-Bharati, Santiniketan.
3. Samit Chattopadhyay - Conducted two days Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit as a collaborative initiative between India and other countries worldwide, Samit Chattopadhyay and D Sriram
4. Samit Chattopadhyay - Chair a plenary session in the virtual conference on 20-21 November 2020: 'Current Trends and Challenges in Plant Biochemistry
5. Sumit Biswas - Aquatic Ecosystem: Prospect and future challenges on 18-19 July 2020 Organised by Presidency University, Kolkata
6. Veeky Baths - Chaired a session on Bilingualism and cognition : Recent developments, Organised by: Society for Neurochemistry, INDIA SNCI – December 2020
7. Veeky Baths - 34th Annual Conference, Society for Neurochemistry, INDIA SNCI – December 2020, Organised by: Society for Neurochemistry, INDIA
8. Rehan Deshmukh, S. Bhand, & Utpal Roy - Royal Society Chemistry Tokyo International Conference 2020 (RSC-TIC2020): Optical Biosensing and Devices. 15th-16th December 2020. Tokyo, Japan, Organised by: Royal Soc. of Chemistry
9. Swetha R, M. Madhuri & Utpal Roy - National Virtual Conference on Current Trends and Challenges in Plant Biochemistry and Biotechnology (CTCPBB). 20-21 Nov' 2020, Organised by: Society for Plant Biochemistry and Biotechnology (SPBB), New Delhi and BITS Pilani-K.K.Birla Goa Campus
10. Vijayashree Nayak - International Conference on Nano Science and Technology (ICONSAT-2020), Biswa Bangla Convention Center, Kolkata, March 5-7,2020
11. Meenal Kowshik - International Symposium on Material Sciences and Innovation for Sustainable Society' Goa on August 26 and 27, 2020.Organised by: Dhempe College of Arts and Science and Govt. College, Khandola.
12. Raghu Nath Behera* and Nisheal Michael Kaleya, "Computational study of some diselenide-based glutathione peroxidase mimics: Effect of E...N (E = Se/Te) intramolecular interaction and E–E bond strength", International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2020), National Institute of Technology, Jalandhar, Punjab, India, Feb 13-14, 2020
13. Dilawar Singh Sisodiya and Dr. Anjan Chattopadhyay "A computational investigation on the role of nitro group in quenching the fluorescence of some highly fluorescent molecules through analysis of the non-radiative decay paths" at the 57th Annual Convention of Chemists & RTCS-2020, organized by Indian Chemical Society, December 26-29, 2020. (Oral presentation by Mr. Dilawar Singh Sisodiya).
14. D. Maarisetty, S. Mohanta, A. K. Sahoo, P. Mohapatra and S. S. Baral, Synthesis, Characterization and Photocatalytic activity of TiO₂-rGO-ZnS nano composites, International Conference on Water, Energy, and Environmental Sustainability (WEES2020), NIT Durgapur, 13th to 15th January, 2020

15. P.K Sow, Frugal designs for affordable science: design of low cost goniometer system for wettability studies, Advances in Chemical Engineering and Science (ACES - 2020), 28-29 February 2020, IISER Bhopal, M.P. India.
16. R. Singhal, "Freestanding Nanofiber Electrodes for Supercapacitors", National Conference on Advances in Chemical Engineering & Science (ACES-2020), IISER Bhopal, 2020.
17. S. Radhakanth, R. Singhal, "Electrospun Manganese Oxide Nanoparticles decorated Carbon Nanofibers as Electrodes for Supercapacitors", International Conference on Electrochemistry in Industry, Health & Environment (EIHE-2020), BARC, Mumbai, 2020.
18. Ishita, R. Singhal, "Porous Multi-Channel Carbon Nanofiber Electrodes for High Performance Supercapacitors using Waste Expanded Polystyrene", International Conference on Electrochemistry in Industry, Health & Environment (EIHE-2020), BARC, Mumbai, 2020.
19. Lubna Muzamil Rehman, Tushar Damani, Tanmay Garg, Vaibhav Sridhar, Vibhor Mittal, Anirban Roy "Analysis of Thermo-acoustical parameters of Hypersaline solutions for applications in Osmotic Power Generation Technologies", International Conference On Advances In Chemical Engineering, AdChE-2020 (Delivered Oral Presentation - Lubna)
- A. Meshram, S. M. Sontakke, Synthesis, characterization and water stability test for Ni-Ce-Zr trimetallic metal organic framework, ICMS-2020, Tripura University, India (Mar., 2020)
20. D. Saxena, A.A. Meshram, S. M. Sontakke, Production of 5-hydroxymethylfurfural from glucose and sucrose using hydrothermally synthesized metal organic frameworks as catalyst, ACES-2020, IISER, Bhopal, India (Feb., 2020)
21. Amina F.#, Amol Deshpande, Effect of metal/metal oxide loading on the heat transfer performance of Unmixed Combustion (UMC) based air heating system, International conference on Advances on Chemical Science and Petroleum Engineering – 2020 (ACAPE – 2020), February 22 – 24, 2020 (Paper ID: P137)
22. Amol Deshpande#, Amina F., Pseudo-homogeneous modeling and CFD simulation of unmixed combustion (UMC) based packed bed reactor for water heating application, International conference on Advances in Chemical Engineering – 2020 (AdChE – 2020), UPES Dehradun, India, February 5 – 7, 2020 (Paper: AdChE/MSO-Paper/0961) [Received the best paper award at the conference]
- A. Moses K & S. S. Baral, A new one step method for synthesis of dark TiO₂ for photocatalytic hydrogen production, ICMS conference, Agartala, Tripura, March 2020.
23. D. Maarisetty, S. Mohanta, A. K. Sahoo, P. Mohapatra and S. S. Baral, Synthesis, Characterization and Photocatalytic activity of TiO₂-rGO-ZnS nano composites, International Conference on Water, Energy, and Environmental Sustainability (WEES2020), NIT Durgapur, 13 th to 15 th January, 2020.
24. Tarkeshwar Singh delivered an invited talk on Application of Some Domination Parameters of Graphs, National Webinar on Applications of Mathematics and Contemporary use of its Scientific & Technical Terminology in Hindi (AM-CUSTT-H-2020), jointly organized by Commission for Scientific and Technical Terminology, MHRD, Govt. of India, India and School of Computational and Integrative Sciences, JNU, New Delhi, during, June 14-16, 2020.
25. NilakDatta. "Orwell's 'Doublethink' as Post-Industrial Post-Truth".International Seminar on " A Century in Retrospect: Literary Signposts and Watersheds of the Last Hundred Years." Organized by Department of English.Shoolini University, Himachal Pradesh, May 18-22. 2020.(Virtual Conference Presentation.)
26. Rajiv K Chaturvedi "Climate Change in the Himalayan region", Himalaya International Conference, IISc, Bangalore (Oct, 2020)
27. R. P. Pradhan- Department of Political Science and IQAC, Dwijendralal College International webinar on "Regional (Dis)agreement : Rhetoric Or Reality? Looking Through the Lens of Recent Sino-Indian Skirmishes" on 05th Aug. 2020.
28. R. P. Pradhan- "Covid-19 Effect On Higher Education in India: The New Normal Dynamics", Key Note address at the National Webinar on Higher Education in Earra of Covid-19 Pandemic: Challenges & opportunities", Dept. of Education, Indira Gandhi Govt. College, Tezu, Arunachal Pradesh, 11 June 2020.
29. R. P. Pradhan- "Covid-19 Impact on Global Order: Thucydides Trap or Great Convergence", Key Note Address at the Online International Workshop, Dept. of Political Science, Kumar Bhaskar Varma Sanskrit & Ancient Studies University, Nalabari, Assam, 05-12 July 2020.
30. Comparing and contrasting Peri-urbanization in Kolkata: A study of eastern and the southern fringers of the city, International Conference on Planning Sustainable Regions: The Social- Economic-Ecological Triad Amity University, Kolkata, February 13-15, 2020 organized by Regional Science association, India.
31. Naik,Sankalp, Prasad, Ch.V.V.S.N.V, (2020): Understanding Risk and Risk Management, Anvesh-2020 Doctoral Research Conference In Management, Institute of Management, NIRMA University, November 26-27, 2020.

32. Prasad, Ch.V.V.S.N.V., & Durgaprasad, A. V. S. (2020) Supply Chain Coordination and Managing Supply chain Risks and Uncertainties, 7th AIMS International Conference on Management, IIM Kozhikode,, Jan 2-4, 2020
33. Shukla, R. (2020). Presented a paper titled "Incentive to Innovate and Market structure" at the 2nd Rajagiri Conference on Economics and Finance (RCEF 2020).

ii) International:

1. Veeky Baths- Organised an online I-Brain Mini Symposium in cognitive neuroscience, sponsored by I-Brain Erasmus project on 12th December 2020- Organised by Institute for Cognitive Neuroscience, Higher School of Economics (Moscow, Russia) in collaboration with the Group for Neural Theory, EcoleNormaleSupérieure (Paris, France) and BITS Pilani (Goa Campus, India) Prof. Veeky led the data issues in cognitive neuroscience track
2. Veeky Baths - CTiCPS (Current Trends in Cyber-Physical Systems) 2020 online seminar co-organized by BITS Pilani, India and Telecom Paris, France
3. Modified Hind Ubbelohde Approach for Predicting Viscosity of Binary and Multicomponent Liquid Mixtures, Ranjan Dey and Sanyukta Jain, THERMAM 2020, Institute of Technical Thermodynamics, University of Rostock, Germany, 15th October 2020.
4. Density, Ultrasonic velocity, Viscosity, Refractive Index and Surface Tension of aqueous Choline Chloride with Electrolyte Solutions, Aditi Prabhune, Ranjan Dey, Institute of Technical Thermodynamics, THERMAM 2020, Universty of Rostock, Rostock, 15th October , 2020
5. Mechanochemical Synthesis and Derivatization of Heterocycles, Mainak Banerjee International Conference on Organometallics and Catalysis (ICOC2020). Hotel Holiday Inn, Goa. International 7-10 March, 2020 Invited Speaker NO
6. Mechanochemical C-H Bond Activation of Heterocycles: To Explore the Scope for 1st Row Transitional Metals Dharmendra Das, Amrita Chatterjee and Mainak Banerjee International Conference on Organometallics and Catalysis (ICOC2020). Hotel Holiday Inn, Goa. International 7-10 March, 2020 POSTER NO
7. SYNTHESIS OF AIE ACTIVE NIR FLUORESCENT PROBES - THEIR PHOTOPHYSICAL STUDIES AND POTENTIAL APPLICATIONS IN IMAGING AND SENSING Akhil A. Bhosle, Sharanabasava D. Hiremath, Amrita Chatterjee* and Mainak Banerjee* 15th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Mumbai, India, International January 5-9, 2020 POSTER NO
8. Quantum dot-cucurbituril-tetraphenylethylene: A three component assembly-disassembly based supramolecular sensor for spermine and spermidine Viraj G. Naik, Mainak Banerjee and Amrita Chatterjee 15th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Mumbai, India, International January 5-9, 2020 POSTER NO
9. CDs-MnO₂ BASED TURN-ON FLUORESCENT ASSAY FOR RAPID AND SENSITIVE DETECTION OF Escherichia coli Sharanabasava D. Hiremath, Mainak Banerjee* and Amrita Chatterjee*15th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020) Mumbai, India International January 5-9, 2020 POSTER NO
10. Dr. Roy attended the full agenda of the DST & ACS Virtual Workshop, 30th October, 2020 organized by DST & ACS.
11. Dr. Roy attended the webinar by Nobel laureate Prof. M. Stanley Whittingham hosted by IIT Delhi on 17th September, 2020.
12. Dr. Roy attended one day webinar on "Peptide nucleic acids (PNA): How to make them enter cells?" by Prof. Krishna N. Ganesh on 2nd September organized by National Institute of Pharmaceutical Education and Research (NIPER)- Ahmedabad.
13. Dr. Roy attended ACS Science Talk: Virtual Lecture Series throughout the 2020 year organized by ACS.
14. Dr. Roy attended ACS Webinar on "Fundamental of Effective Scientific Writing: Manuscript and Grant" on 6th June, 2020 organized by ACS.
15. Manjuri Kumar, Sidhali U. Parsekar, Priyanka Velankanni and Aditya P. Koley: Design and development of Cu(II)/Zn(II) complexes containing carbohydrazone ligand to study DNA and protein interaction as well as in vitro anticancer activity. **GORDON RESEARCH CONFERENCES** frontiers of science : Status: accepted by the conference chair and invited to present a poster at the 2020 meeting of Metals in Medicine, a highly prestigious Conference, which will be held at **Proctor Academy, NH United States** from June 28 - July 3, **2020**. Meeting: Metals in Medicine Gordon Research Conference, Dates: June 28, 2020 - July 03, 2020, Location: Proctor Academy in Andover, NH United States
16. Sontakkke, S.M., Prabhudesai, V., Kowsalya, B., Environmental applications of hydrothermally synthesized UiO-66 metal organic frameworks, in: Proceedings of MC-14, RSC, Birmingham, UK (Jul 2019).

17. A. Meshram, S. M. Sontakke, S. Mascarenhas, A. Ganguly, Precipitation of Silica from drinking water in CKDu affected areas of Canacona district, Goa, India: A simple, quick and economic method, in: Proceedings of IWA Water and Development Congress & Exhibition, Colombo, Sri Lanka, (Dec 2019)
18. P. Sai Pavan Kalyan, **Amol Deshpande**[#], CFD Simulation of fuel/flue gas section of the fire-tube steam boiler system, Proceedings of the 6th World Congress on Mechanical, Chemical, and Material Engineering (**MCM'20**) [7th International conference on Heat Transfer and Fluid Flow (**HTFF'20**)], Virtual Conference (originally expected to held at Prague, Czech Republic), August 16 – 18, 2020 (DOI: 10.11159/htff20.178) [**Indexed by Google scholar and Scopus**]
19. Abhiraj Hinge,Pranav Garg,Neena Goveas. Image Processing for UAV Using Deep Convolutional Encoder–Decoder Networks with Symmetric Skip Connections on a System on Chip (SoC), International Conference on Intelligent Computing and Smart Communication 2019, DOI: ISBN 978-981-15-0633-8, 1009-1015, 2020, Springer, Singapore (Short) (Networks)
20. Mouli Rastogi,Syed Afshan Ali,Mrinal Rawat,Lovekesh Vig,Puneet Agarwal,Gautam Shroff,Ashwin Srinivasan. Information Extraction from Document Images via FCA based Template Detection and Knowledge Graph Rule Induction, 2020 IEEE/CVF Conference on Computer Vision and Pattern Recognition, CVPR Workshops 2020, 2377-2385, 2020, Seattle, WA, USA (Long) (Core A, Data Science)
22. S Giridher,A Gupta,S Jaiswal,Vinayak Naik. Predicting Human Response in Feature Binding Experiment Using EEG Data, Networked Healthcare Technology (NetHealth'20), 2020, India (Short) (SCI, Networks)
23. K Phokela,Vinayak Naik. Use of Smartphone's Headset Microphone to Estimate the Rate of Respiration, Networked Healthcare Technology (NetHealth'20), 2020, India (Short) (SCI, Networks)
24. Sharan Ranjit S,Raj K Jaiswal. Single Image Intrinsic Decomposition Using Transfer Learning, 12th International Conference on Machine Learning and Computing, 418-425, 2020, China (Long) (Others, Data Science)
25. Aman Kumar Singh,Raj K Jaiswal. DDoSify: Server Workload Migration During DDOS Attack In NFV, 9th International Conference on Software and Computer Applications, 364-369, 2020, Malaysia (Long) (Others, Networks)
26. Rajaswa Patil,Somesh Singh,Swati Agarwal. BPGC at SemEval-2020 Task 11: Propaganda Detection in News Articles with Multi-Granularity Knowledge Sharing and Linguistic Features based Ensemble Learning, 14th International Workshop on Semantic Evaluation, Co-located with 28th International Conference on Computational Linguistics (COLING), 2020, Barcelona, Spain (Long) (Core A, Data Science)
27. Swati Agarwal,Rahul Thakur,Utkarsh Yadav,Hemant Rathore. Socio-Cellular Network: A Novel Social Assisted Cellular Communication Paradigm, The 91st Vehicular Technology Conference: VTC2020-Spring, DOI: <https://ieeexplore.ieee.org/document/9129642>, 2020, Antwerp, Belgium (Long) (Core B, Networks)
28. Sujith Thomas,Aditya Kapoor,Narayanan Srinivasan. Effect of a colour-based descriptor and stimuli presentation mode in unsupervised categorization, Proceedings of the 42nd Annual Conference of the Cognitive Science Society (p. 3531), 3531, 2020, Toronto, Canada. (Poster) (Core A, Data Science)
29. P Sharma,D Gosain,H Sagar,C Kumar,A Dogra,Vinayak Naik,H Acharya,S Chakravarty. SiegeBreaker: An SDN Based Practical Decoy Routing System, Privacy Enhancing Technologies Symposium, 2020, Canada (Long) (Core B, Networks)
30. Sujith Thomas,Narayanan Srinivasan. Better learning of partially diagnostic features leads to less unidimensional categorization in supervised category learning, Proceedings of the 42nd Annual Conference of the Cognitive Science Society (pp. 3444--3450), 3444--3450, 2020, Toronto, Canada (Short) (Core A, Data Science)
31. Rachit Rastogi,Ritika Jaiswal,Raj K Jaiswal. Renewable Energy Firm's Performance Analysis Using Machine Learning Approach, Procedia Computer Science, Elsevier, 500-507, 2020, Belgium (Long) (SCI, Data Science)
32. Sharan Yalburgi,Tirtharaj Dash,Ramya Hebbalaguppe,Srinidhi Hegde,Ashwin Srinivasan. An Empirical Study of Iterative Knowledge Distillation for Neural Network Compression, European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning, DOI: ISBN 978-2-87587-074-2, 217-222, 2020, Bruges, Belgium (Core B, Data Science)
33. Soundarya Krishnan,Rishab Khincha,Lovekesh Vig,Tirtharaj Dash,Ashwin Srinivasan. A Case Study of Transfer of Lesion-Knowledge, MICCAI-International Workshop on Medical Image Learning with Less Labels and Imperfect Data, DOI: https://doi.org/10.1007/978-3-030-61166-8_15, 138-145, 2020, Lima, Peru (Long) (Data Science)
34. Dheryta Jaisinghani,Naman Gupta,Mukulika Maity,Vinayak Naik. Adaptive WiFi: A Dynamic Protocol for IoT Nodes in Challenged WiFi Network Conditions, International Conference on Mobile Ad-Hoc and Smart Systems, 2020, India (Long) (Core B, Networks)

35. Bhavye Jain, Kaustubh Trivedi, Swati Agarwal, Rahul Thakur. MeshSOS: An IoT Based Emergency Response System, In 54th The Hawaii International Conference on System Sciences, 2020, Hawaii (Long) (Core A, Systems)
36. Shourya Shukla, Rahul Thakur, Swati Agarwal. Distributed Vehicular Dynamic Spectrum Access for Platooning Environments., IEEE 92nd Vehicular Technology Conference VTC Spring, 2020, Helsinki, Finland (Long) (Core B, Networks).
37. Mascarenhas E., Nalband S., Fredo A.R.J. and Prince A.A., (2020) 'Analysis and Classification of Vibroarthrographic Signals using Tuneable 'Q' Wavelet Transform,' 7th International Conference on Signal Processing and Integrated Networks (SPIN2020), pp. 65-70, February 27-28, Noida, India, IEEE.
38. K. Bandla, A. Hari, Sourabh Sethi Krishnan & D. Pal, "Design of High Speed and Low Offset SR Latch Based Dynamic Comparator", IEEE Tensymp, 5-7 June 2010, Dhaka, Bangladesh, Listed in IEEE Xplore
39. K. Bandla, A. Hari Krishnan & D. Pal, "New Topology of Low Power, High Speed and Area Efficient Dynamic-Latch Comparator for SAR-ADC's", IEEE 2020-ITCE, 8-9 February 2020, Mövenpick Resort Aswan, Egypt, Listed in IEEE Xplore
40. Akhilesh G. Naik, Debarshi Deka & D. Pal, "ASIC Implementation of High-Speed Adaptive Recursive Karatsuba Multiplier with Square-Root-Carry-Select-Adder", 11th IEEE LASCAS, 25-28 Feb. 2020, San Jose, Costa Rica, Listed in IEEE Xplore
41. Sudeep Baudha, Manish Varun Yadav and Ishita Shrivastav, "A novel approach for compact antenna with parasitic elements aimed at ultra-wideband applications," 14th European Conference on Antennas and Propagation (EuCAP 2020), Copenhagen (Denmark), March 15-20, 2020. <https://doi.org/10.23919/EuCAP48036.2020.9135503>
42. Balajee R S and Sudeep Baudha, "Planar Antenna with Rectangular Parasitic Patch and Strip for Ultra-wideband Applications," International Symposium on Antennas and Propagation, India, 2020
43. Joshi A, Dhongdi S, Kumar S, Anupama KR. Simulation of Multi-UAV Ad-Hoc Network for Disaster Monitoring Applications. In 2020 International Conference on Information Networking (ICOIN) 2020 Jan 7 (pp. 690-695). IEEE.
44. Ansa Shermin S., Malhotra A., Dhongdi S., "TSP Algorithm for Optimum Path Formulation of AUV for Data Collection in Underwater Acoustic Sensor Network." In Proceedings of Fifth International Congress on Information and Communication Technology. ICICT 2020. Advances in Intelligent Systems and Computing, vol 1183. Springer, Singapore. https://doi.org/10.1007/978-981-15-5856-6_16
45. VV Khairnar, CK Ramesha, LJ Gudino, A Survey on Beamwidth Reconfigurable Antennas, International conference on Modelling, Simulation and Intelligent Computing, (MoSiCom 2020).
46. Verma and A. Pethe, "Modelling and Analysis of Multi-Junction Photovoltaic Cells", IEEE INDICON, December 2020
47. Aakash Gupta, Ankit Kalra and Hrishikesh S. Sonalikar, A Wide Band Square Loop Circuit Analog Absorber with Low Periodicity, IEEE International Conference on Advanced Communication Technologies and Signal Processing (IEEE ACTS 2020), 4-6 December 2020, NIT Silchar, India.
48. Romesh Srivastava, Aparna Parameswaran and H. S. Sonalikar, On Design of Airborne Radomes with Brent's Method for Radiation Pattern Peak detection, 4th International Conference on Optical & Wireless Technologies (OWT 2020), 3-4 October 2020, MNIT Jaipur, India, Springer.
49. Aniruddh Dwarkanath, Anita Agrawal, "Ultrasonic Guided Waves for Structural Health Monitoring Applications", 2020 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Vol , I , B 1-E 7
50. R. D. Govenker, A. Y. Phatak, R. Bajpai and N. Gupta, "Outage Analysis of mmWave Integrated Device-to-Device Communication System under Nakagami Fading Channel," in National Conference on Communications (NCC) , Kharagpur, India, 2020, pp. 1-6.
51. Kaur, S. Kaushik, R. Bajpai, N. Gupta, "Performance Analysis of Millimeter-Wave Based Device-to-Device Communications System", in Proceedings of International Conference on Telecommunications, Indonesia, 2020.
52. R. Shanbhag, R. Bajpai, N. Gupta, A. Kumar, "Performance Analysis of Multi-Armed Bandit Based Resource Allocation Algorithms for D2D Communication Systems", in Proceedings of International Conference on Telecommunications, Indonesia, 2020.
53. Khokar, R. Bajpai, N. Gupta, "Best User Selection for NOMA-aided Full-duplex Cooperative D2D Communications System" in Proceedings of International Conference on Telecommunications, Indonesia, 2020.
54. R. Bajpai, A. Kulkarni, G. Malhotra, N. Gupta, "Outage Analysis of OFDMA Based NOMA Aided Full-Duplex Cooperative D2D System", in Proceedings of International Conference on Telecommunications, Indonesia, 2020.

55. Kumar, J. Eldho, S. Pandey, R. Bajpai, N. Gupta, " Outage Analysis of D2D based Ultra-reliable Low latency Communication System under Nakagami-m Fading Channel", accepted in proceedings of IEEE ANTS 2020, Delhi, India.
56. S Mishra, R. Bajpai, N. Gupta, V.K. Singh, " Machine Learning and Caching based Efficient Data Retrieval Framework", accepted in proceedings of IEEE ANTS 2020, Delhi, India.
57. R. Bajpai, K. Nawandar, S. Nag, N. Gupta, "Outage Analysis of Millimeter Wave Assisted Full-Duplex Cooperative D2D communications System with Non-orthogonal Multiple Access", accepted in proceedings of IEEE ANTS 2020, Delhi, India.
58. N. Gupta, R. Bajpai, A. Kumar, V.A. Bohara, "Multiuser Hybrid Cooperative Device-to-Device Communications System with Best User Selection" accepted for proceeding in IEEE WCNC 2021, Nanjing, China, April 2021.
59. Ashish Chittora, Swati V. Yadav, , " A Compact Circular Waveguide Polarizer with Higher Order Mode Excitation" , IEEE CONECCT 2020 Conference, Bangalore, July 2020.
60. Swati V. Yadav, Ashish Chittora, "A Compact High Power UWB TEM Horn Antenna" , IEEE CONECCT 2020 Conference, Bangalore, July 2020.
61. Ravishankar P. Desai and Narayan S. Manjarekar "Design of Diving System Controller for an Autonomous Underwater Vehicle" 2020 First IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC) held in Visvesvaraya National Institute of Technology, Nagpur, M.S., India during 25th to 26th September 2020.
62. Ravishankar P. Desai and Narayan S. Manjarekar "Controller Design for Decoupled Model of an Autonomous Underwater Vehicle" 2020 First IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC) held in Visvesvaraya National Institute of Technology, Nagpur, M.S., India during 25th to 26th September 2020.
63. Ravishankar P. Desai and Narayan S. Manjarekar "Design of Robust Depth Controller for an AUV with Disturbance" 2020 IEEE 17th India Council International Conference (INDICON), held in Netaji Subhas University of Technology Dwarka Sector-3, Dwarka, Delhi, 110078, India during 11th to 13th December 2020.
64. R. Kadlimatti, "Good Code Sets via Coprime Powers," 2020 IEEE International Radar Conference (RADAR), Washington, DC, USA, 2020, pp. 262-267.
65. R. Kadlimatti, "Good Code Sets Based on Triangular Chirps with Signed Segments and Different Slopes," 2020 IEEE International Radar Conference (RADAR), Washington, DC, USA, 2020, pp. 280-285.
66. N. Chordas-Ewell, K. Xu, R. Kadlimatti, A. T. Fam, J. H. Choi, "Vibrating Antenna Doppler Radar," to be published in the proceedings of the 17th European Radar Conference, 2020.
67. K.A.Geetha. "A Study of Caste and Social Hierarchy within the Devadasi System"at the 6thWorld Conference on Women Studies organized by TIIKM and Bridge Water State University , July 2020
68. Cheruvalath, R., Manalo, I. and Ayabe, H. 2020. "Planning as a metacognitive strategy, diagram use, and th of moral reasoning" at SIG 8 Meets SIG 16 Dresden 2020 in DGUV Congress, Dresden, Germany
69. NilakDatta. " Masculine Nationalism and the American Frontier: Sight-marking Literature on Daniel Boone in the Long Nineteenth Century". International Conference on *Tourist Imaginaries and Mobility in the United States*. University of Versailles Saint-Quentin en Yvelines, Guyancourt, France. February6-7 2020)
70. NilakDatta. "Tourist vs. Traveler: The Legacy of Mark Twain's The Innocents Abroad (1869)". Mini Melow 2020.INTERNATIONAL CONFERENCE ONFOUR HUNDRED YEARS OF AMERICAN LITERATURE: BACK TO THE BASICS. 20th International Conference.Hosted by Shoolini University. (October9-11 2020)..)
71. Tarkeshwar Singh attended and chaired a session in 6th India-Taiwan Conference on Discrete Mathematics (ITCDM-2019), at Department of Mathematical Sciences, IIT-BHU, Varanasi, during Nov.15-18, 2019.
72. Tarkeshwar Singh chaired a paper presentation session in Four-Day online National Conference on Pure and Applied Mathematics(NCPAM-20202) organized by Department of Mathematics, KLS Gogte Institute of Technology, Belagavi, during August 11-14, 2020.
73. Tarkeshwar Singh chaired two sessions on (k,d)-Skolem Graceful Graphs, in International Conference on Recent Trends in Mathematics to Graphs, Networks and Petri Nets (ICRTMA-GPN-2020) at School of Computational and Integrative Sciences, JNU, New Delhi, during July 20-24, 2020.
74. P. Danumjaya attended the 5th International Conference on Numerical Analysis and Optimization, Sultan Qaboos (NAOV-2020), University, Muscat, Oman January 6-9, 2020.
75. Manoj Pandey presented a paper entitled "Evolution of contact and weak discontinuity waves in two phase drift flux model" at AUS-ICMS 2020, American University of Sharjah, UAE.

76. Abhilash K Tilak, Ranjit S Patil, "Two-phase numerical simulation of the effect of hybrid nanofluid on the performance of microchannel heat sink", 8th International and 47th National Conference on Fluid Mechanics and Fluid Power (FMFP 2020), IIT Guwahati, 9-11th December 2020.
77. Rajavamsi Gangipamula, Pritanshu Ranjan, Ranjit S Patil, "Hydraulic Noise Reduction in a Volute Pump Using Source Modification - A Test Data Correlation and Numerical Simulation Approach", 8th International and 47th National Conference on Fluid Mechanics and Fluid Power (FMFP 2020), IIT Guwahati, 9-11th December 2020.
78. Patil, M., Singh V., Regalla, S.P., Gupta, A.K., Bera, T.C., Simhachalam, B. and Srinivasa, K., (2020). Parametric optimization of the generation of the porous layer for lubrication in tube drawing process. International Conference on Aspects of Materials Science and Engineering (ICAMSE 2020), PU, Chandigarh. May 29-30, 2020.
79. Bhagat, K. R., Ranjan, P. (2020, July). Flow past a heated rotating horizontal cylinder in cross-flow. In AIP Conference Proceedings (Vol. 2248, No. 1, p. 050004). AIP Publishing LLC. <https://doi.org/10.1063/5.0013235>
80. Koppa Shivanna, N, Ranjan, P, Clement, S. "Numerical Investigation of a Square Back Vehicle Equipped With a Single Cavity and Multi-Cavity." Proceedings of the ASME 2020 ASME. <https://doi.org/10.1115/FEDSM2020-20213>.
81. Nikhil S. Mane, Vadiraj Hemadri "Effect of surfactant and nanoparticle materials on the stability and properties of CuO-water and Fe₃O₄ water nanofluids" ASME 2020 Heat Transfer Summer Conference <https://doi.org/10.1115/HT2020-9034>
82. Mane, SN, Hemadri, VA. Study of the effect of preparation parameters on thermal conductivity of metal oxide nanofluids using Taguchi method. 8th Eur. Conf. Ren. Energy Sys. 24-25 August 2020, Istanbul, Turkey.
83. Prasad, Ch.V.V.S.N.V., Naik, Sankalp (2020): Benefits of Enterprise Risk Management: A Systematic Review of Literature, 11th Global Conference on Business and Social Science, Bangkok, Thailand, December 11-12, 2020.
84. Prasad, Ch.V.V.S.N.V., Prabhdesai, R., Sinha, A., Bhat, A. (2020): Determining the Impact Entrepreneurial Orientation on SME Alliance Formation, International Conference on Economics and Finance, BITS Pilani, K K Birla Goa Campus, January 23-25, 2020.
85. Shukla, R. Paper titled "Sources of Finance and In-house R&D: A Study of electronic firms in India" accepted for presentation at 34th Eurasia Business and Economics Society (EBES) Conference - Athens, Greece on January 6th, 7th, and 8th, 2021.
86. Sheetal Thomas, Mridula Goel Anmol Agarwal and Asadali Abbas Hazariwala "Application of Machine Learning to Analyse Handwriting Features of Neuroticism" in 2nd International Conference on Data Science, Machine Learning & Applications (ICDSMLA) (05-06 December, 2020) organized by Springer Conference, Pune, India.
87. Sheetal Thomas, Mridula Goel "Identifying Mutual Fund Investment Behaviour Using Handwriting Analysis" in 1st International Conference on Behavioural Economics and Finance (16-18 December, 2020) organised jointly by Institute of Public Enterprise (IPE) and India Behavioural Economics Network (IBEN).
88. Bhand U. and Goel M. (2020) "Commercialization of Life Sciences Technologies in Indian Academic Institutions: Challenges and Mechanisms", International Conference on Economics and Finance (ICEF 2020), BITS Pilani, K. K. Birla Goa Campus, January 23-25, 2020.
89. R.L., Manogna and Mishra, A.K. (2020), "Can the FMCG stock market investors hedge the risk in Agricultural Commodity markets? Empirical evidence from India", 2nd International Conference on Economics and Finance, ICEF-2020, organized by BITS Goa & University of Missouri, January 23rd to 25th 2020, India.
90. Sinha, A.K., Mishra, A.K. and R.L., Manogna (2020), "Performance of small firms and the determinants of research and development investment in India: A panel data analysis", 2nd International Conference on Entrepreneurship & Family Business, ICEFB-2020, organized by IIT Bombay & G. Brint Ryan College of Business, January 9th to 11th 2020, India.
91. Aswini Kumar Mishra, Pratyush Pradhan, Divya Revankar (2020): Eliciting Time, Risk and Social preferences: Experimental Evidence from India, International Conference on Economics and Finance, BITS Pilani, K K Birla Goa Campus, January 23-25, 2020.
92. R.L., Manogna and Mishra, A.K. (2020), "Financialization of Indian Agricultural Commodities: The Case of Index Investments", 9th International Conference on Futures and Other Derivatives, ICFOF-2020, organized by Fudan University and Beihang University, December 4th to 5th 2020, Zhuhai, China.
93. Sinha, A. K., Mishra, A. K., & Manogna, R. L. (2020) ". Examining the Performance of MSME firms in India: An Empirical Analysis at Industry Level", The 2nd International Conference on Economics & Finance. At:

Hyderabad Campus

1. Sujith R., Workshop on Materials Characterization, ARCI Hyderabad (Online), ARCI Hyderabad, 27 November 2020,
2. Dr. Nitin Kotkunde., SMF 2020 Conference on Sheet Metal Forming, SMFRA IIT Bombay, 18-19 December 2020,
3. Dr. Praveen has participated in an FDP on Advanced Multivariate Data Analytics from 17-08-2020 to 21-08-2020, organized by IIM Visakhapatnam.
4. Dr. Praveen has participated in the workshop on "SPSS Applications in Data Analysis from 28-07-2020 to 06-08-2020 organized by Education Committee of PHD Chamber of Commerce and Industry, New Delhi.
5. Panduranga, K., Koley, S., 2020. Wave Interaction with Inverse T-Shaped porous Floating Breakwater, The 3rd International Conference on Frontiers in Industrial and Applied Mathematics, NIT Jamshedpur, 21-22 December, 2020.
6. Dr. Pratyusha has attended a seminar, "On n-Dimensional Voyage" on National Mathematics Day 22nd Dec, 2020.
7. Dr. Pratyusha has attended Summer School of Math on Lie Groups and Lie Algebras in July, 2020.
8. Dr. Manish has presented a paper on "A secure RGB image encryption algorithm in optimized virtual planet domain" in Indo-French Seminar on Optimization, Variational Analysis, and Applications during February 2-4, 2020, sponsored by the IFCPAR/CEFIPRA, at the Department of Mathematics, Institute of Science, Banaras Hindu University, Varanasi, India.
9. Dr. Manish has presented a paper through Microsoft team on "A review on medical encryption techniques" in the 2nd International Conference on Machine Learning and Intelligent Systems (MLIS 2020) during October 25-28, 2020, Organized in Seoul, Korea.
10. Dr. Manish has attended online through google meet "International Workshop on Sampling and Approximation Theory" (IWSAT-2020) during December 10-11, 2020, Organized by Department of Mathematics, SSN College of Engineering, Chennai, India.
11. Rupanshu Soi, Nischay Ram Mamidi, Elliott Slaughter, Kumar Prasun, Anil Nemili and SM Deshpande, An implicitly parallel meshfree solver in Regent. In: 2020 IEEE/ACM 3rd Annual Parallel Applications Workshop: Alternatives to MPI+X (PAW-ATM), Virtual Event, November 09-19, 2020.
12. Koley, S., Trivedi, K., Water waves interaction with poroelastic plate floating over undulated bottom topography, Mathematics of Sea Ice and Ice Sheets 2020, The University of Newcastle, Australia, 09-12 November, 2020.
13. Koley, S., Panduranga, K., Energy balance relations for flow through thick porous structures, 43rd International Conference on Boundary Elements and other Mesh Reduction Methods, Embry-Riddle Aeronautical University, Daytona, USA, 07-09 December, 2020.
14. Dr. Pratyusha is attending an ongoing seminar on Commutative Algebra. This is a biweekly online seminar series by researchers from across the world. It is held every Tuesday and Friday since April, 2020.
15. Nirmal J. Biomaterials role in achieving optimum therapeutics for the back of the eye diseases. Hiroshima University, Japan and BITS Pilani, Hyderabad Campus, 2nd Joint Workshop, 20th November 2020.
16. Akash Chaurasiya attended International Conference On Drug Discovery 2020 (ICDD 2020), BITS-Hyderabad, 29 Feb - 2 Mar 2020.
17. Yogeewari P., Organizing Committee member and speaker on the topic Discovery of Drug Candidates for Brain Cancer: Challenges and Target Based Strategy at the Pharmaceutical Education and Research Challenges for Emerging Prospects and Trends' PERCEPT-2020 during 13-14 March, 2014 at Osmania University, Hyderabad.
18. Jaspreet Kalra, Deepika Dasari, Audesh Bhat and Arti Dhar on "Selective Inhibition of PKR ameliorates hypertensive nephropathy and aortic remodeling in L-NAME treated rats" at ISN World Congress of Nephrology 2020, Abu Dhabi, UAE on March 26-29th March, 2020.
19. Vandana K, Bollareddy Srivarsha Reddy, Jaspreet Kalra, Gurdhari Roy, Deepika Dasari, Vamsi Krishna Venuganti and Arti Dhar on "5 Flurouracil and Etodolac Co-Encapsulated Liposomes for Targeted Drug Delivery: A Novel Strategy into Nanomedicine Based Combinational Chemotherapy for Breast and Ovarian Cancers" at International Conference on Drug Discovery (ICDD) 2020, BITS Pilani Hyderabad on February 19-20, 2020.
20. Jaspreet Kalra, Mangali Suresh Babu, Audesh Bhat, Kirtikumar Jadhav and Arti Dhar on "Selective Inhibition of PKR Improves Vascular Inflammation and Remodelling in High Fructose Treated Primary

Vascular Smooth Muscle Cells” at Global Health Summit, ICONICA 2020, Punjab University, Chandigarh, India on March 16-17 at Panjab University, Chandigarh, India.

21. S. Banik: Invited talk in Advances in Astroparticle Physics and Cosmology (AAPCOS)-2020 at Saha Institute of Nuclear Physics, Kolkata, January 2020.
22. Longitudinal and transverse surface plasmon resonance enhanced upconversion in nanopillar shaped geometries, Avi Mathur, Abhishek, Jasvith Basani, and Kannan Ramaswamy, META 2021 (Abstract accepted).
23. Engineering plasmon enhanced up-conversion via Transformation Optics, Abhishek, Avi Mathur, Jasvith Basani, and Kannan Ramaswamy, META 2021 (Abstract accepted).
24. Infinite chain model for a quantitative understanding of Faraday rotation in superparamagnetic Magnetite based ferrofluids, Hemanth K Narsetti, Nikhil Navaratna, Waseem Ahmad Wani, Dinabandhu Patra, Balaji Gopalan, Kannan Ramaswamy, ICONN 21 (Abstract accepted).
25. Prof. Aranya bhuti Bhattacharjee attended Quantum 2020 held virtually from 19–22 October 2020.
26. Swastik Bhattacharya: 31st IAGRG Meet, IIT Gandhinagar, December, Presented my paper in a talk.
27. Prof. Meenakshi attended discussion meeting on Experimental program of PTTS (Physics Training and Talent Search) at IISER, Pune on 4 - 5 November, 2020.
28. Dr. Anhiti Patnaik, “How to Convert your Dissertation into a Book,” Academic Workshop conducted by Yoda Press, Delhi, 19 June 2020
29. Dr. Lavanya Suresh, “A Search for Ecological Alternatives: A Case Study of the Politics of Water and Scarcity in Andhra Pradesh, India”, Conference on Collective Action in The 21st Century: Reimagining The Public And The State organized by the Department of International Relations and Governance Studies, Shiv Nadar University from 21st to 23rd October 2020.
30. Dr. Lavanya Suresh, “Environmental Justice: A Political Ecology Perspective” at the The Environment & the Indian Constitution series organised by NALSAR, Hyderabad on 4th March, 2020
31. Shilpaa Anand, “Historicizing Disability in India: Conceptual and Methodological Concerns”: presented on 23rd July 2020 at an international workshop titled *Dilemmas of Difference: Research Perspectives on Gender, Body Politics and Ethics* organized by Vasanta College for Women, affiliated to Benaras Hindu University (20-25 July 2020).
32. Dr. Swati Alok presented a paper *Does A Country With Highest Facebook Users Behave Differently Online? -Finding the Effects of Personality Traits on Facebook Behaviour among Students in India*, at the 1st Rajagiri Management Conference (RMC 2020), held in Kochi, October 2020.
33. Dr. Nivedita Sinha presented a paper *Investor reaction to Bank consolidation in India* at the 4th Annual Economics Conference organized by Sarla Anil Modi School of Economics, NMIMS, Mumbai in collaboration with The Indian Econometric Society (TIES), 7 th March 2020.
34. Dr. Nivedita Sinha presented a paper *Investor reaction to Bank consolidation in India* at the 38th Annual Conference of Indian Association for Research in National Income and Wealth, New Delhi ((Virtual platform), Jointly Organized by RBI and Ministry of Statistics & Program Implementation, Government of India, 26-27th September 2020.
35. Dr. Nivedita Sinha & Saandra Nandakumar presented a paper *Impact of RBI’s COVID-19 policy measures on Banks* at the research seminar organized by National Institute of Securities Markets (NISM) in collaboration with The Indian Econometric Society (TIES), 26-27 th August 2020.
36. Dr. Nivedita Sinha & Saandra Nandakumar presented a paper *Borrower’s response to Bank consolidation in India* at the 1st Rajagiri Management Conference, organized by Rajagiri Business School, Rajagiri College of Social Sciences in collaboration with Victoria University of Wellington, New Zealand, held at Kochi India (virtual platform), 15th -16 th October 2020.
37. Dr. Nivedita Sinha & Neil M. Shah presented a paper *Venture Capital Investment in the Renewable energy sector in India* presented at the 2nd Rajagiri Conference on Economics and Finance 2020, organized by Rajagiri Business School and Rajagiri College of Social Sciences (Autonomous), Kochi in association with The Indian Econometric Society (TIES) and the University of Economics, Ho Chi Minh City (UEH) on 5th and 6th November 2020.
38. Dr. Nivedita Sinha was invited to be the Session Chair, at the 1 st Rajagiri Management Conference, organized by Rajagiri Business School, Rajagiri College of Social Sciences in collaboration with Victoria University of Wellington, New Zealand, held at Kochi India (virtual platform), 15th -16th October 2020.
39. Dr Nivedita Sinha's co-authored paper with Prof. Ravi Anshuman and Srijith Mohanan titled "Investment Efficiency or Tunnelling: Evidence from Indian Business Groups" was presented at F&A Brown bag seminar 2020, organized by IIM Bangalore

40. Dr. Thota Nagaraju presented a paper *The cyclical behavior of Indian banking sector capital buffers* at the 56th Annual Conference of The Indian Econometric Society held at Madurai Kamaraj University, Madurai, during 8th-10th January, 2020.
41. Dr. C H Yaganti delivered lecture on *Simultaneous Equations and Vector Autoregression* at 56th TIES Preconference workshop on Time series Econometrics", Madurai Kamraj University, 5-6th January 2020.
42. Sanjay M & Dr. C H Yaganti presented paper on the topic *Heterogeneity of Cash Markets at Physical Delivery Points and the Hedging Effectiveness of Agricultural Commodity Futures in India – Lessons for Contract Optimization* at SEBI-NISM Conference on Changing Landscape of Securities Market during January 22-24, 2020.
43. Karuna B, Dr. C H Yaganti & Dr. Mini Thomas presented a paper on the topic *India's Demographic Dividend – The Working-age Youth Conundrum* at 56th TIES Preconference workshop on Time series Econometrics", Madurai Kamraj University, 5-6th January 2020.
44. Dr. C H Yaganti served as Resource person for the topic on Multivariate Time series Econometric Models - Four days online workshop on Econometrics Models: Theory and Practice, organized by Department of International Business, Alagappa University, during 13th – 16th October, 2020.
45. Karuna B, Dr. C H Yaganti & Dr. Mini Thomas presented a paper on the topic *Determinants of India's Youth Unemployment in the Millennials Milieu* 2nd RCEF jointly organized by Rajagiri Business School and Rajagiri College of Social Sciences (Autonomous), Kochi in association with The Indian Econometric Society (TIES) and the University of Economics, Ho Chi Minh City (UEH) on 5th and 6th November 2020.
46. Dr. Rishi Kumar presented a paper titled "Opportunities and challenges in urban low-income households' savings behavior" held during Dec 8-Dec 11, 2020 at the Household Finance Roundtable, Dvara Research held virtually.
47. Paper "Determinants of Impact of Natural Disaster in SAARC Countries" (Bincy George, Sudatta Banerjee & Rishi Kumar) presented by Ms. Bincy George in 2nd Rajagiri Conference on Economics and Finance organized by Rajagiri Business School in association with The Indian Econometric Society (TIES) and the University of Economics, Ho Chi Minh City (UEH), November 05-06, 2020.
48. Paper "Determinants of Impact of Natural Disaster in SAARC Countries" (Bincy George, Sudatta Banerjee & Rishi Kumar) presented by Ms. Bincy George in 56th Annual Conference of the Indian Econometric Society (TIES), at Madurai Kamaraj University, Madurai, Tamil Nadu, January 8-10, 2020.
49. K Sumithra attended a Half-day virtual meeting on Theoretical Chemistry at condensed phases (28 September, 2020) organized by BARC and IIT Bombay, 28th September, 2020.
50. Sahithi and K. Sumithra poster: Band gap engineering in intrinsically doped bilayer graphene. National Conference on Frontiers in Medicinal Chemistry and Nanochemistry, Directorate of Higher Education, Government of Goa, 14th and 15th February 2020. (Poster).
51. K Sumithra attended Three Days Virtual lecture workshop on "Simulation and modeling in Chemistry" from 2nd to 4th December 2020 Sponsored by Indian Academy of Science, Bengaluru, organized by NIT Surathkal.
52. K Sumithra attended Global Meet organized by BITS, October, 2020.
53. Dr Amit Kumar Panda participated in TEQIP-III sponsored online Faculty Development Program (FDP) on "Signal Processing Application" held from 21st to 25th September 2020 organized by the Department of Instrumentation & Electronics Engineering, College of Engineering Technology (Autonomous), Bhubaneswar, Odisha.
54. N. Adinarayana, S. Srinivarao, N. Sridhar, S. Murugesan, and K. V. G. Chandra Sekhar. Design, synthesis and biological evaluation of 2-aminobenzimidazoles as Quorum Sensing inhibitors in *Pseudomonas aeruginosa*. 26th Indian Society for Chemists and Biologists Conference jointly organized with 5th Nirma Institute of Pharmacy International Conference, Ahmadabad, 22nd-24th January 2020.
55. Karankumar, Faheem, G. Surajpyarelal, S. Murugesan, and K. V. G. Chandra Sekhar. In-silico target identification study of novel anti-leishmanial β -carboline agents. 26th Indian Society for Chemists and Biologists Conference jointly organized with 5th Nirma Institute of Pharmacy International Conference, Ahmadabad, 22nd-24th January 2020.
56. Faheem, G. Surajpyarelal, B. Karankumar, S. Murugesan, and K. V. G. Chandra Sekhar. In-silico target identification study of novel anti-leishmanial agents. 26th Indian Society for Chemists and Biologists Conference jointly organized with 5th Nirma Institute of Pharmacy International Conference, Ahmadabad, 22nd-24th January 2020.
57. Almas Shamaila Mohammed, Aniket Balapure, Mahammed Nanne Khaja, Ramakrishnan Ganesan and Jayati Ray Dutta, Naked-eye detection of Hepatitis C viral RNA from clinical samples - Virtual conference in CCMB, HySci-2020, 17-18 Dec, 2020, India.
58. Almas Shamaila Mohammed, Aniket Balapure, Mahammed Nanne Khaja, Ramakrishnan Ganesan and Jayati Ray Dutta, Biosensing of Hepatitis C Viral RNA from Clinical specimens - National Virtual Conference

- on 'Current Trends and Challenges in Plant Biochemistry and Biotechnology', 20-21 Nov, 2020, BITS-Goa, India.
59. Dr. Chanchal chakraborty, presented at SAIS Symposium 2020 (webinar), Organized by the School of Applied and Interdisciplinary Sciences, IACS, Kolkata India. 04-05 December, 2020
 60. Single crystal XRD structural studies of nickel complexes of 1,10-phenanthroline and isophthalic acid, Sabitha D., Krishnan Rangan, National Symposium on Convergence of Chemistry & Materials (CCM 2019), December, 2019, BITS-Pilani Hyderabad Campus, Hyderabad.
 61. *Crystal structure and spectroscopic studies of phendione and its cobalt complex*, Ravallika Aluri, Krishnan Rangan, National Symposium on Convergence of Chemistry & Materials (CCM 2019), December, 2019, BITS-Pilani Hyderabad Campus, Hyderabad.
 62. *Towards rational design of functional KLVFF based amyloid material for toxic metal binding*, Aishwarya Natarajan, Ramakrishna Vadrevu, Krishnan Rangan, National Symposium on Convergence of Chemistry & Materials (CCM 2019), December, 2019, BITS-Pilani Hyderabad Campus, Hyderabad.
 63. Ruchi Jain Dey; Keystone Symposia eSymposia meeting eSymposia | Tuberculosis: Science Aimed at Ending the Epidemic from December 2-4, 2020. (International, Attended)
 64. Ruchi Jain Dey, Harnessing Mucosal Immunity towards Improved resistance against Tuberculosis "Ramalingaswami Re-entry Fellowship Programme Conclave-2020". 14-17th December, 2020 (Invited Speaker)
 65. Ruchi Jain Dey, The Second Joint Workshop of BITS-Pilani and Hiroshima University will be held on Friday, 20th November 2020. (Attended)
 66. Ruchi Jain Dey, Webinar "The tale of blind men and the elephant: Multiple modal approach to combat tuberculosis" Ruchi Jain Dey; Online Cross campus webinar symposia organized by BITS Pilani, Pilani, National Webinar, 17th July 2020, (Invited speaker)
 67. Ruchi Jain Dey, National Webinar: "Challenges to combat the unseen enemy – COVID-19". Ruchi Jain Dey. Online webinar organized in association with Microbiology Department, Kasturba Gandhi Degree & PG College for Women, West Marredpally, Secunderabad-26. National Webinar, 30th, May 2020 (Invited speaker)
 68. Ruchi Jain Dey, Seminars in Pediatric Immunology, IAP Kozhikode, Department of Pediatrics GMC Kozhikode, CSIR Institute of Genomics and Integrative Biology & Foundation for Primary Immunodeficiency Disease, November and December 2020, every Friday (Attended)
 69. N Anand, P Sankar Ganesh, 2020. Physicochemical characterization of leachate emanating from young and legacy municipal solid waste landfills, International EConference on Frontiers in Industrial Biotechnology (ICFIBT2020), Tamil Nadu, p. 91.
 70. Debkumar Chakraborty, N Anand, P. Sankar Ganesh, 2020. Enhanced anaerobic digestion of food waste employing grass clipping as buffering agent National conference on Bioprospecting and Biotechnology (HAPTEN 2020). Tamil Nadu.
 71. N Anand, Srinjoy Roy, P. Sankar Ganesh, 2020. Studies on anaerobic co-digestion of landfill leachate with domestic septage and sewage sludge, National conference on Bioprospecting and Biotechnology (HAPTEN 2020). Tamil Nadu.
 72. Gireesha Mohannath, Neha Priyadarshini, Gargi Prasad S. and Muralikrishna Ramgopal Bioinformatic analysis of 45S ribosomal RNA (rRNA) genes from plants to humans: Inbix-2020, International Conference on Bioinformatics, Dec. 4-5, 2020.
 73. Gireesha Mohannath, Gargi Prasad S., Aveepsha Bera, Snigdha Ghosh, Raman M. Sundaram, C.N. Neeraja, and Channakeshava Chikkaputtaiah. Epigenomic manipulation of crop plants for trait improvement. Current Trends and Challenges in Plant Biochemistry and Biotechnology, Nov. 20-21, 2020.
 74. Aveepsha Bera, Snigdha Ghosh, Gargi Prasad S., Muralikrishna Ramgopal and Gireesha Mohannath. Chromatin Assembly Factor-1 (CAF-1) plays a role in ribosomal RNA gene regulation and in maintaining genomic stability in Arabidopsis thaliana. Current Trends and Challenges in Plant Biochemistry and Biotechnology, Nov. 20-21, 2020.
 75. Gargi Prasad S., Aveepsha Bera, T.S. Abirami and Gireesha Mohannath. Different mutant alleles of Histone Deacetylase 6 (hda6) have different effects on rRNA genome instability in Arabidopsis thaliana. Current Trends and Challenges in Plant Biochemistry and Biotechnology, Nov. 20-21, 2020.
 76. Gireesha Mohannath. rDNA genomic instability-mediated dysregulation of rRNA genes in epigenetic mutants of Arabidopsis" in online conference BIO@BITS-2020, BITS Pilani, India, July 16-18, 2020
 77. Almas Shamaila Mohammed, Aniket Balapure, Mahammed Nanne Khaja, Ramakrishnan Ganesan and Jayati Ray Dutta, Biosensing of Hepatitis C Viral RNA from Clinical specimens - National Virtual Conference on 'Current Trends and Challenges in Plant Biochemistry and Biotechnology', 20-21 Nov, 2020, BITS-Goa, India.

78. Narayana Penta & Jayati Ray Dutta, 'Production of *Shigella flexneri* polysaccharide and its conjugation with CRM197 protein as potential vaccine candidate' - National Virtual Conference on 'Current Trends and Challenges in Plant Biochemistry and Biotechnology', 20-21 Nov, 2020, BITS-Goa, India.
79. Almas Shamaila Mohammed, Aniket Balapure, Mahammed Nanne Khaja, Ramakrishnan Ganesan and Jayati Ray Dutta, Naked-eye detection of Hepatitis C viral RNA from clinical samples - Virtual conference in CCMB, HySci-2020, 17-18 Dec, 2020, India.
80. Narayana Penta & Jayati Ray Dutta, A potential vaccine candidate: *Shigella flexneri* polysaccharide and CRM197 protein conjugates - Virtual conference in CCMB, HySci-2020, 17-18 Dec, 2020, India.
81. Manjari SKV, Sanjana Srinivas, Sathwik P G and Komal P* (* Corresponding author, 2020) Abstract published as conference proceedings; Vitamin D intake enhances Vitamin D receptor expression in the striatum and rescues memory and motor dysfunction in mouse model Huntington's disease, 3rd Macquarie Neurodegeneration meeting, Macquarie University, Australia, poster.
82. Manjari SKV, Sanjana Srinivas, Sathwik P G and Komal P* (*Corresponding author, 2020); Abstract published as conference proceedings; Vitamin D intake enhances Vitamin D receptor expression in the striatum and rescues memory and motor dysfunction in mouse model Huntington's disease, 38th Annual Conference of Indian Academy of Neurosciences (IAN) October 5 – 7, University of Hyderabad, Abstr, Hyderabad, Telangana, India, poster.
83. Manjari SKV, Sanjana Srinivas, Sathwik P G and Pragya Komal* (Corresponding author); Abstract published as conference proceedings;" Vitamin D3 supplement rescues motor disability in 3-nitropropionic acid induced mouse model of Huntington's disease, "First Annual Meeting of Georgian Center for Neuroscience Research (GCNR-2020), Tbilisi, Georgia.
84. Manjari SKV and Pragya Komal* (Corresponding author); Abstract published as conference proceedings;" 34th annual meeting of society for neurochemistry India, (SNCI); University of Hyderabad; 12th December 2020; Therapeutic Effects of Vitamin D Supplementation in Mouse Model of Huntington's Disease.
85. Sridev Mohapatra. Oral presentation on "Conditional Pathogenesis: Understanding Why Potentially Beneficial Rhizobacteria turn Pathogenic under certain Environmental Conditions" at Current Trends and Challenges in Plant Biochemistry and Biotechnology organized by Indian Society for Plant Biochemistry and Biotechnology at BITS-Pilani Goa Campus on 20th and 21st November, 2020.
86. Shuvadeep Maity Attended 12th Annual Meeting of Proteomics Scoecity, India (PSI), International Virtual Symposium on "Integrated Omics Approach in Health & Agriculture", 22nd to 24th Nov 2020, CSIR-NCL, Pune, India.
87. Shuvadeep Maity, Disi an, Justin Rendleman, Dylan Iannitelli, Joseph Espiritu, Victoria Paradise, Kapil Ramachandran, Esteban Mazzoni, Christine Vogel. Poster presentation in NEURODEGENERATIVE DISEASES: BIOLOGY & THERAPEUTICS Virtual Meeting Wednesday, December 2 – Friday, December 4, 2020, CSHL, USA.
88. Shuvadeep Maity Attended "MoE – STARS Workshop on Grant Writing (December 7 – 12, 2020)" organized by Scheme for Transformational and Advanced Research in Sciences (STARS), managed by Indian Institute of Science (IISc), Bangalore, India.
89. Anuhya Anne, K. Naga Mohan. Somatic mutations associated with oral leukoplakia. Indo-US Workshop on Human diversity and disparities. CSIR-CCMB, Hyderabad. January 16-18, 2020.
90. Fairy Emmanuel Desai, K. Naga Mohan. Workshop on Evaluation of Male infertility HySci 2020. Lush fertility centre, Hyderabad, CSIR-CCMB, Hyderabad. March 15, 2020.
91. Sonal Saxena, DNMT1 overexpression results in dysregulation of multiple genes associated with neurological disorders and abnormal neurogenesis. European Conference of Human Genetics (ESHG 2020), Virtual, June 6-9, 2020
92. K. Naga Mohan, Sonal Saxena, Sumana Choudhury. Dysregulation of genes associated with neurodegenerative disorders in neurons overexpressing DNMT1. Cold Spring Harbor Symposium on Neurodegenerative Diseases, Virtual, December 2-4, 2020.
93. Arnab Dutta, Iftexhar A. Karimi and Shamsuzzaman Farooq. PROAD (Process Advisor): Health Monitoring Dashboard for Centrifugal Pumps. AIChE 2020 Annual Meeting, San Francisco, CA, USA, November 16 – 20, 2020.
94. Y. Varun, Premanath Murge, Satyapaul A. Singh, I.Sreedhar, " A study on the effect of magnesium on nickel catalyst for CO2 methanation studies", International Conference on Emerging Trends in Catalysis (ICETC-2020), Vellore Institute of Technology, Vellore, India.
95. Srikanta Dinda, Vuchuru Kalyan, Sheraj Z. Sayyed, and Sundaraiah Konda, Cracking of Hydrocarbon Fuel Under Supercritical Environment: A Feasibility Study, International Conference on Advances in Chemical Engineering (Adche-2020), Dehradun, Uttarakhand, India, February 05-07, 2020.

96. Sharon Mariam Varughese and Nandini Bhandaru, Underwater durability of patterned hydrophobic surfaces, 4th Indo-German Workshop in Materials, Reaction and Separation Processes 2020, Berlin, Germany, February 2020.
97. Yaddanapudi Varun, I. Sreedhar, Satyapaul A. Singh, " Highly stable M/NiO-MgO (M=Co, Cu and Fe) catalysts towards CO₂ methanation", Virtual National Conference on Catalysis and Photocatalysis for Clean Energy (CPCE-2020), NIT Jamshedpur, Jharkhand, India.
98. Yaddanapudi Varun, I. Sreedhar, Satyapaul A. Singh, " Highly stable M/NiO-MgO (M=Co, Cu and Fe) catalysts towards CO₂ methanation", Online Students Indian Chemical Engineering Congress (SCHEMCON-2020), Indian Institute of Chemical engineers, Jadavpur University campus, Kolkata, India.
99. Vedika, Kulkarni, Varun Yaddanapudi, Satyapaul A. Singh, " Synthesis of Cu/Co₃O₄ nanomaterials and its application for CO oxidation ", Students' Chemical Engineering Congress (SCHEMCON 2020), Indian Institute of Chemical Engineers.
100. S. Gochhayat, Y. Varun, S.A. Singh*, "Development of core shell NiO@Co₃O₄ for photoelectrocatalytic Oxygen Evolution Reaction", 16th Annual Student Chemical Congress, (S-CHEMCON-2020), IICChE, Jadavpur University, Kolkata, India.
101. P Aryan, Satchit Nagpal, Satyapaul A. Singh, "Modelling and simulation in microfluidic channels", Students' Chemical Engineering Congress (SCHEMCON 2020), Indian Institute of Chemical Engineers.
102. Yaddanapudi Varun, Premanath Murge, Satyapaul A. Singh, Inkollu Sreedhar, " A study on the effect of magnesium on nickel catalyst for CO₂ methanation studies", International Conference on Emerging Trends in Catalysis (ICETC-2020), Vellore Institute of Technology, Vellore, India.
103. Sharon Mariam Varughese and Nandini Bhandaru, Underwater durability of patterned hydrophobic surfaces, 4th Indo-German Workshop in Materials, Reaction and Separation Processes 2020, Berlin, Germany, February 2020.
104. Debashis Panda, Supriya B, V. K. Surasani, Lattice Boltzmann Simulations for micro-macro interactions during isothermal drying of porous media, Interpore-2020, Aug. 31 – Sep 4. 2020.
105. Supriya B, Debashis Panda, Nicole Vorhauer, V. K. Surasani, Study on Film effects during isothermal diffusion dominated evaporative drying of square capillary tube using Lattice Boltzmann model, Interpore-2020, Aug. 31 – Sep 4. 2020.
106. Pradeep Reddy Punnam, Shakti Raj Singh Bawal, V. K Surasani, Parametric study on the residual CO₂ trapping in Deccan Volcanic Basalt. Interpore-2020, Aug. 31 – Sep 4. 2020
107. S K Saha attended 57th Annual Convention of Chemists, 2020 & International Conference on Recent Trends in Chemical Sciences during 26th to 29th December, 2020 organized by Indian Chemical Society, Kolkata.
108. Anupam Bhattacharya virtually participated in "Recent Advances in Organic, Medicinal and Biological Chemistry", 8-9th July 2020, VIT- Chennai."
109. Anupam Bhattacharya presented an ePoster: Total synthesis of quinolineserrulatane alkaloid (±)-Microthecaline A: First example of a natural product bearing tricyclic quinoline-serrulatane scaffold.
110. Karankumar, Faheem, S. Murugesan, and K. V. G. Chandra Sekhar. Preliminary investigation of drug repurposing as a direction towards anti-Leishmanial drug discovery, International Conference on Drug Discovery (ICDD2020), BITS-Hyderabad, 29th February-2nd March 2020.
111. Jayanty Subbalakshmi participated in Wiley online seminar on "General Practices for Composing a High Impact Paper" July 30, 31, August 5. Received Certification of Completion
112. Kruthi K. Ramagiri, Darshan Rajesh Chauhan, Shashank Gupta, Ritika Sridharan, Arkamitra Kar, Avinash Unnikrishna, and Anasua Guharay (2021), "Predicting Durability Characteristics of Concrete with Alkali Activated Binders using Reliability Analysis", Earth and Space Conference, ASCE, Seattle, Washington, April 19-22, 2021 (paper accepted).
113. Mazhar, S., GuhaRay, A., Garg, A. (2021), "Performance Evaluation of fiber-reinforced expansive subgrade soil stabilised with lime, cement, and alkali-activated binder: A comparative study", 6th GeoChina International Conference: Civil and Transportation Infrastructures, Nanchang, China, 19-21 July 2021 (paper accepted).
114. Chakravarthy, G.S., GuhaRay, A. (2020), "Effect of Soil Burial on Durability of Alkali Activated Binder treated Jute Geotextile", Indian Geotechnical Conference (IGC), Andhra University, 17-19 December 2020.
115. Mazhar, S., Kasat, Y.V., Sarda, G.V., GuhaRay, A. (2020), "Effect of Fiber Reinforcement on Strength of Geopolymerised Soil: An Experimental Investigation and Numerical Modelling", Indian Geotechnical Conference (IGC), Andhra University, 17-19 December 2020.
116. Jayatheja M., GuhaRay, A. (2020), "Earth Pressures of Soils partially replaced with Building Derived Materials for Narrow Backfill Condition", Indian Geotechnical Conference (IGC), Andhra University, 17-19 December 2020.

117. Chakravarthy G.S., GuhaRay, A., Kar, A. (2020), "Strength Characterisation of Alkali Activated Binder treated Jute for Ground Improvement", 2nd ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economics (CRSIDE 2020), Kolkata, 2-4 March.
118. Jayatheja, M., GuhaRay A., Kar, A. (2020), "Experimental Investigations on Earth Pressures of Sand partially replaced with Building Derived Material", 2nd ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economics (CRSIDE 2020), Kolkata, 2-4 March.
119. Ansuman Panda, Manish Mehtha, Sammed Magdum and P. N. Rao (2020), "Sloshing Effect of Water in Elevated Water Tank on a G+2 Building", ISSC 2020, IIT, Hyderabad, India.
120. C. Parimi; S.P. Challagulla: Seismic Response of Structures with Stacked and Sliding Live Loads, 17th WCEE, 2020, Sendai, Japan, 2020.
121. S.C. Mohan, CH.B.V. Hareen, Pushover based Torsional Response of Infill Wall Buildings with Plan and Vertical Irregularities, 17th World Conference on Earthquake Engineering, 17WCEE, Sendai, Japan - September 13th to 18th 2020. Accepted.
122. U. Ramakrishna, S.C. Mohan, Multi-objective Particle Swarm Optimization for Seismic Response Reduction of Dynamically Similar Adjacent Buildings with Optimal VE Dampers, 17th World Conference on Earthquake Engineering, 17WCEE, Sendai, Japan - September 13th to 18th 2020. Accepted.
123. Saiteja Sistla, S C Mohan, Numerical Modelling of Bonded and Unbonded Flax Fiber Reinforced Elastomeric Isolator and their Application to RC Building, ICE3MT2020 Conference, 09th and 10th October, 2020.
124. S.C. Mohan, Nishant Panwar, Ajay C B Maniteja, Two Stage SEREP Method for Condensation of Space Frame Structure for Dynamic Analysis, Proceedings of 12th SEC2020 - Structural Engineering Convention-An International Event, 17-19 December 2020, MNIT, Jaipur, India.
125. R. Rithuparna, V. N. Varada, S. C. Mohan, Effective Peripheral Distribution of Base Isolators for Plan Asymmetric, Proceedings of 12th SEC2020 - Structural Engineering Convention-An International Event, 17-19 December 2020, MNIT, Jaipur, India.
126. Mansi Trivedi, Aayushi Doshi, Kshema Sara Koshy, S.C. Mohan, Comparative Study on Seismic Performance of Existing Building with and Without Retrofitting Using Lateral Load Resisting Systems, Proceedings of 12th SEC2020 - Structural Engineering Convention-An International Event, 17-19 December 2020, MNIT, Jaipur, India.
127. Ramagiri, K. K. and Kar, A., (2020), "Effect of high-temperature on the microstructure of alkali-activated binder", Materials Today: Proceedings (In Press, Corrected Proof)
128. Kiranmaye, B. R., Dutta, J. R., Kar, A., Parimi, C., Raju, S., (2020), "Optimization of culture parameters of Pseudomonas alcaligenes for crack healing in concrete", Materials Today: Proceedings (In Press, Corrected Proof)
129. Shekhar, S., Ghosh, J. "Metamodeling strategies towards seismic life-cycle cost assessment of highway bridges", Accepted in 7th International Symposium on Life-Cycle Civil Engineering (IALCCE 2020), Shanghai, China, October 27-30, 2020.
130. Shekhar, S., Ghosh, J., and Ghosh, S. "Evolution of seismic fragility of multi-span simply supported highway bridges in India", In Proceedings of 2nd ASCE Conference in India on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE 2020), Kolkata, March 02-04, 2020.
131. Venkateswarlu, T., Abdul Hannan, Maitreyee Talnikar, J. Anmala, Significance of classification and regression tree (CART) models in the prediction of river water quality, XXV HYDRO 2020 International Conference (Hydraulics, Water Resources & Coastal Engineering) to be held at N.I.T Rourkela, 16-18 December 2020 (Abstract accepted)
132. Sai Kubair, Bhanuprasad Katla, Waim Akshay Ravindra, Sridhar. R and Subhash T K. (2020), "Characterization of RAP Added SMA Mixtures", 99th Transportation Research Board Annual Meeting 2018, Transportation Research Board (TRB), Washington, D.C., 12-16 January 2020.
133. Majumdar B.B., Dissanayake D, Rajput AS, Saw Y and Sahu P.K. (2020) Prioritizing Metro Service Quality Attributes to Facilitate Transit Agency Interventions Leading to Enhanced Commuter Experience- TOPSIS Ranking and Importance-Satisfaction Analysis methods. Accepted for presented for 99th Annual meeting of Transportation Research Board, Washington DC, USA
134. Majumdar B.B, Vendotti N, Patil M., and Sahu PK (2020). A Pedestrian Satisfaction Based Methodology for Prioritization of Critical Sidewalk and Crosswalk Elements influencing Safety and Walkability. Accepted for presented for 99th Annual meeting of Transportation Research Board, Washington DC, USA.
135. Pani, A., Bhat, F., and Sahu, P. (2020), "Effects of Business Age and Size on Freight Demand: A Decomposition Analysis of Indian Establishments", 99th Annual Meeting, Transportation Research Board (TRB), Washington D.C., USA, 12th – 16th January. (AT015 Best Paper Award – AT 015: Freight

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138. Prasanth Kumar, Ankur Bhattacharjee*, Aritra Ghosh, Sanket Goel, "Experimental studies on the natural dust accumulation on Low-Iron Glass surface and its impact on the Solar Photovoltaic system performance", 30th International Photovoltaic Science and Engineering Conference (PVSEC 30) and Global Photovoltaic Conference (GPVC 2020), Republic of Korea, vol. 30, 2020.
139. Amogh B.S, Venkatarao Selameni and Parikshit Sahatiya, Highly Sensitive Transient Breath Sensor based on Black Phosphorus Quantum Dots-PVA Composite, ICONSAT, Mar 2020, Kolkata, India
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141. Venkatarao Selamneni, Sankalp K G, Nikita Nerurkar and Parikshit Sahatiya, Flexible Pressure-Strain Sensor as Wireless keyboard and Human Motion Monitoring Using Facile Fabrication of MoSe₂ on Paper, ICONSAT, Mar 2020, Kolkata, India
142. Venkatarao Selamneni, Sankalp Koduvayur Ganeshan, Parikshit Sahatiya, Flexible Broadband (UV-Vis-NIR) Photodetector based on all MoS₂ 0D/2D Mixed Dimensional Unipolar Heterojunctions, MRS Fall/Spring Meet, USA (Virtual). Nov 2020
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144. "Naveen Bokka, Debapriya Som, Sayan Kanungo, and Parikshit Sahatiya, ""Fabrication of Few Layer SnS₂ Based Flexible Pressure and Strain Sensor and Understanding the Transduction through First Principles Calculations."" IEEE-ICEE, IIT-Delhi (Virtual), Dec 2020, India"
145. Vivek Adepur, Naveen Bokka, and Parikshit Sahatiya, Wearable Humidity Sensor based on Rhenium disulfide (ReS₂) for Respiration Monitoring, MRS Fall/Spring Meet, USA (Virtual) Nov 2020
146. Sravan K. Vittapu, Uppugunduru Anil Kumar and Sumit K. Chatterjee, "Low Complexity DCT Approximation Algorithm for HEVC Encoder", Lecture Notes in Electrical Engineering, Feb 2020.
147. A. K. Panda, R. Palisetty and K. C. Ray, "High-Speed Area-Efficient VLSI Architecture of Three-Operand Binary Adder," IEEE International Symposium on Integrated Circuits and Systems 2020 (ISICAS 2020), 27-28 August 2020
148. Samit Kumar Ghosh, Rajesh Kumar Tripathy, R N Ponnalagu, Evaluation of Performance Metrics and Denoising of PCG Signal using Wavelet Based Decomposition" in the proceedings of the 17th India Council International Conference, INDICON 2020, December 11-13, 2020, Delhi, India.
149. Prateek Grover, Yuvraj Singh Malhi, R N Ponnalagu, "A Comparative Study on Industrial Multiphase Flow Measurement Techniques" in the proceedings of the 8th International and 47th National Conference on Fluid Mechanics and Fluid Power (FMFP), December 9-11, 2020, IIT Guwahati, India.
150. Prakash Rewatkar and Sanket Goel, Microfluidic Enzymatic Glucose Biofuel Cell with MWCNT patterned Printed Circuit Board Electrodes, accepted with IEEE NEMS, 2020.
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152. Madhusudan Kulkarni and Sanket Goel, Bluetooth Enabled Miniaturized Temperature Controller Platform for Point-of-Source Applications, submitted to ECS PRiME 2020, held during Oct 2020.
153. Avinash Kothuru and Sanket Goel, Electronic Nasal Pod: A 3D Printed Device to Filter and Electrochemically Detect pollutants, accepted for oral presentation, IEEE Sensors Conference, 2020.
154. Dipankar Nath, Prakash Rewatkar and Sanket Goel, Origami Microfluidic Microbial Fuel Cell for Powering IoT Node with IoT Cloud Platform, accepted for presentation at ECS PRiME 2020, held during Oct 2020.
155. Manish Bhaiyya, Prasant K Pattnaik and Sanket Goel, Miniaturized Portable Handheld Electrochemiluminescence Imaging, accepted for presentation at ECS PRiME 2020, held during Oct 2020.
156. Jayapiriya U S, Prakash Rewatkar and Sanket Goel, Completely Additive Manufactured and Reusable Microfluidic Device As Enzymatic Glucose Biofuel Cell, accepted for presentation at ECS PRiME 2020, held during Oct 2020.

157. Sangam Srikanth, Satish Kumar Dubey, Arshad Javed and Sanket Goel, Droplet Based Microfluidic Electrochemical Detection of Uric Acid, Ascorbic Acid and Dopamine, accepted for presentation at ECS PRiME 2020, to be held during Oct 2020.
158. M. Salve, K. Amreen, P. Rajurkar, P. K. Pattnaik, and S. Goel, Miniaturized Disposable Buckypaper-Polymer Substrate Based Electrochemical Purine Sensing Platform, accepted for presentation at ECS PRiME 2020, to be held during Oct 2020.
159. S. Dudala, S. Srikanth, S. K. Dubey, A. Javed, and S. Goel, Development of Miniaturized Interdigitated Electrode Sensors and Their Application in Taste Sensing, accepted for presentation at ECS PRiME 2020, to be held during Oct 2020.
160. Jayapiriya U S, Optimization of Carbon Cloth Bioelectrodes for Enzyme-based Biofuel cell for Wearable Bioelectronics, accepted for presentation with IEEE Nano 2020.
161. Prasanth K. Enaganti, Prabhat K. Dwivedi, Alok K. Srivastava and Sanket Goel "Studying the Impact of Infrared Spectrum on Submerged Amorphous, Mono-and Poly-crystalline Solar cells" for a Virtual Poster in EU PVSEC 2020, the 37th European Photovoltaic Solar Energy Conference and Exhibition September 2020 (Abstract Accepted)
162. Prasanth K. Enaganti, Prabhat K. Dwivedi, Alok K. Srivastava, and Sanket Goel "Underwater Analysis of Solar Photovoltaic Cells with Filtered Solar Spectrum" for a Virtual Poster including a 5-minute oral video presentation in 47th IEEE PVSC Conference June 2020.
163. Prasanth K. Enaganti, Prabhat K. Dwivedi, Alok K. Srivastava and Sanket Goel "Underwater Solar Irradiance and Performance Performance analysis of various Silicon Solar Cells with Change in Water Conditions: A Comparative Study." 12th International Exergy, Energy and Environment Symposium (IEEEES-12) December 2020 (Invited for the special issue in International Journal of Energy Research).
164. Jaligam Murali Mohan, Khairunnisa Amreen, Arshad Javed, Satish Kumar Dubey and Sanket Goel, Microscale Electrochemical Platform for Interference-Alleviated Sensing of Multiple Bio-Analytes, presented at 15th IEEE International Symposium on Medical Measurements and Applications, June 2020.
165. Jaligam Murali Mohan, Khairunnisa Amreen, Arshad Javed, Satish Kumar Dubey, Sanket Goel, Microfluidic Electrochemical Platform with Ink-jetted Electrodes for Multiple Chemicals / Biochemical Sensing, presented at International Conference on Electrochemistry (EIHE-2020), January 2020, BARC, Mumbai, India
166. Lanka Tata Rao, Saurabh Gurunath Kulkarni, Satish Kumar Dubey, Arshad Javed, and Sanket Goel, Development of Membraneless Paper-Pencil Microfluidic Hydrazine Fuel Cell for Energy Harvesting and Sensing, presented at International Conference on Electrochemistry (EIHE-2020), January 2020, BARC, Mumbai, India.
167. Prakash Rewatkar, Jayapiriya US, and Sanket Goel, Soft-lithographic Microfluidic Enzymatic Biofuel Cell with integrated Laser Pyrolyzed Bioelectrodes, presented at International Conference on Electrochemistry (EIHE-2020), January 2020, BARC, Mumbai, India.
168. P. V. Bhanu, C. Vudadha and J. Soumya, "FILA: Fault-Model for Interconnection Links in Application-Specific Network-on-Chip Design," 2020 IEEE International Symposium on Circuits and Systems (ISCAS), Sevilla, 2020, pp. 1-5,
169. H. Sirugudi, S. Gadgil and C. Vudadha, "A Novel Low Power Ternary Multiplier Design using CNFETs," 2020 33rd International Conference on VLSI Design and 2020 19th International Conference on Embedded Systems (VLSID), Bangalore, India, 2020, pp. 25-30,
170. P. P. Dutta, A. M. B and S. Mondal, "An 18 mV Offset, 193 ps Sensing Delay, and Low Static Current Sense Amplifier for SRAM," 2020 24th International Symposium on VLSI Design and Test (VDATE), Bhubaneswar, India, 2020, pp. 1-4,
171. Shambu Prasad P, Alivelu M. Parimi, "Harmonic Mitigation in Grid Connected and Islanded Microgrid Via Adaptive Virtual Impedance, Accepted in 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE), 2nd to 4th January, 2020
172. M.T.L. Gayatri, Vooturi Gayathri, Baddam Rithika, Alivelu M Parimi, "Wind Microgrid Power Quality Compensation using Self Supported DC Link", Feb 2020 IEEE International Conference on Inventive Computation Technologies (ICICT), Coimbatore, India, 2020, pp. 1-5, doi: 10.1109/ICICT48043.2020.9112585.
173. Alaukik Joshi, Mihir Ojha, Kanishka Harwani, Jay Karhade and Alivelu Manga Parimi, "Design and Analysis of Dynamics, Control and Simulation of Y-4 Quadrotor Structure for Hybrid Aerial Vehicle", IEEE International Conference for Emerging Technology INCET 2020, 5th and 7th June, Karnataka, India
174. Srinivasan M P and Alivelu Manga Parimi, "Solar Powered Permanent Magnet Synchronous Motor Drive for Water Pumping Applications", IEEE International Conference for Emerging Technology INCET 2020, 5th and 7th June, Karnataka, India

- 175.M.T.L. Gayatri, D. Dakshita Lakshmi, Nalla Saikumar, Nomula Saivaraprasad, Alivelu M. Parimi "Active Power Quality Enhancement of Wind Microgrid Supported by PV Generation" 2020 IEEE-HYDCON, 11th-12th Sept. 2020
- 176.Renuka Loka and Alivelu M. Parimi, "Impact of Microgrid Connected to A Conventional Power System on System Frequency and Control Strategy", 2020 IEEE-HYDCON, 11th - 12th Sept. 2020
- 177.M.T.L. Gayatri, D. Dakshita Lakshmi, Nalla Saikumar, Nomula Saivaraprasad, Alivelu M. Parimi, "WECS Based Microgrid Supported by PV generation for Interline Active Power Quality Conditioning", IEEE International Conference on Power, Energy, Control and Transmission Systems (ICPECTS'20), 10th and 11th of December 2020
- 178.Renuka Loka and Alivelu Manga Parimi, "Home Inverter Based Coordinated and Distributed Frequency Control in a Smart Hybrid Power System", 2020 IEEE 17th India Council International Conference (INDICON), 11-13 Dec.2020
- 179.Thippana Charan and Alivelu Manga Parimi, "Placement of IPFC for Power Loss Reduction in Transmission Lines Using Firefly Algorithm", 2020 IEEE 17th India Council International Conference (INDICON), 11-13 Dec.2020
- 180.Prathamesh Saraf, Manan Gupta and Alivelu Manga Parimi, "A Comparative Study Between a Classical and Optimal Controller for a Quadrotor", IEEE 17th India Council International Conference (INDICON), 11-13 Dec.2020
- 181."Jayesh Ganji, Kapil Ram Gavali, Harish V. Dixit, P.K. Sharma "The Impact of the Resonator Shape of a Comblined Travelling Wave Antenna on its RF and Thermal Performance", Asia Pacific Microwave Conference (APMC-2020) (Virtual), China, IEEE AP/MTT Hong Kong Chapter, 8-11 December, 2020
- 182."Jayesh Ganji, P.K. Sharma, Harish V. Dixit "Modeling of Fast Wave Interaction with SST-1 tokamak like plasma using GENRAY code" International Conference on Plasma Sciences (ICOPS-2020) (Virtual), Singapore Plasma Science and Application Committee (PSAC) of the IEEE Nuclear & Plasma Sciences Society, 6 - 10 December 2020
- 183.Kapil Ram Gavali; Jayesh Ganji; Harish V. Dixit,"A Modified Sinusoidal SWS with Dominant TM01 Mode and Improved Impedance for Use in BWOs", IEEE International RF and Microwave Conference (RFM-2020), 14-16 December 2020.
- 184."Shrey thakkar, Harish V. Dixit, "" Design and simulation of a novel TEM to TE11 mode converter at 3 GHz for HPM applications""", International Conference on Plasma Sciences (ICOPS-2020) (Virtual), Singapore Plasma Science and Application Committee (PSAC) of the IEEE Nuclear & Plasma Sciences Society, 6 - 10 December 2020
- 185."Alla, Navteja, and Syed Ershad Ahmed. ""An Area and Delay Efficient Logarithmic Multiplier."" 2020 International Conference on Contemporary Computing and Applications (IC3A). IEEE, 2020."
- 186."U. A. Kumar, M. H. Ahmed, Rakhee and S. E. Ahmed, ""An Evaluation of the Canny Edge Detection Algorithm using Hybrid Approximate Adder Architecture,"" 2020 IEEE-HYDCON, Hyderabad, India, 2020, pp. 1-5."
- 187."Kumar, Uppugunduru Anil, Nishant Jain, Sumit K. Chatterjee, and Syed Ershad Ahmed. ""Evaluation of Multiplier-Less DCT Transform Using In-Exact Computing."" In International Conference on Machine Learning, Image Processing, Network Security and Data Sciences, pp. 11-23. Springer, Singapore, 2020."
- 188."Reddy, C. Sai Revanth, U. Anil Kumar, and Syed Ershad Ahmed. ""Design of Efficient Approximate Multiplier for Image Processing Applications."" In International conference on Modelling, Simulation and Intelligent Computing, pp. 511-518. Springer, Singapore, 2020."
- 189.Sudha Radhika, Prabhmeet Singh, Archana S, Yukio Tamura, "Tornado Damage Estimation by Combining Wavelet and CNN Based Technology from UAV (Drone) Database", 54th CMOS Congress, Canadian Meteorological and Oceanographic Society (CMOS), Ottawa, Canada, 2020
- 190.Amar Kumar Verma, Aakruti Jain, S Radhika, "Neuro-Fuzzy Classifier for Identification of Stator Winding Inter-turn Fault for Industrial Machine", Mosaicom2020: International Conference on Modelling Simulation & Intelligent Computing, DUBAI, UAE, 2020
- 191.C.Santhi Durganjali, Harini, Sudha Radhika, "Modelling and performance analysis of different types of Li-ion Battery", IMECE2020: International Mechanical Engineering Congress & Exposition, Oregon Convention Center, Portland, 2020
- 192.Amar Kumar Verma, Naren Surampudi, Sudha Radhika, "Web Based Application for Quick and Handy Health Condition Monitoring System for a Reliable Wind Power Generation", IMECE2020: International Mechanical Engineering Congress & Exposition, Oregon Convention Center, Portland, 2020
- 193.Ajitha.T, Sudha Radhika, "IoT based system for residential peak load management and monitoring of connected load", ETAEERE-2020: Emerging trends and advances in Electrical Engineering and Renewable Energy, Bhubaneswar, India, 2020

194. B. Malayappan, N. Krishnaswamy and P. K. Pattnaik, "Optical MEMS Accelerometer Based on Waveguide Bragg Grating Integrated with Crab-Leg Beam," 2020 IEEE Sensors, Rotterdam, Netherlands, 2020, pp. 1-4, doi: 10.1109/SENSORS47125.2020.9278931.
195. Santhi Durganjali.C, Sudha Radhika, Ponnalagu R.N., Sanket Goel "MODELLING OF 3D SOLAR CELL WITH FINITE VOLUME DISCRETIZATION" Poster presentation – PVSEC-30 & GPVC 2020 Hybrid Conference – Completed- November 8 (Sun) - 13 (Fri), 2020- Proceedings- P3-T1-101- Pg.No-769
196. Chaluvadi V Naga Bhaskar and Prasant Kumar Pattnaik, Spectral Characteristics of Cascaded Uniform FBGs of Varying Lengths, IEEE INDICON 2020, (online) December 2020.
197. Chaluvadi V Naga Bhaskar and Prasant Kumar Pattnaik, "Effect of Strain and Temperature in FBG", 6th International Conference on Electronics, Computing and Communication Technologies IEEE CONECCT 2020, 2-4 July 2020.
198. Dr. Shreya Biswas presented a paper titled *Socio-economic determinants of household investment portfolio in India* held during Dec 8-Dec 10, 2020 at the virtual Household Finance Roundtable, Dvara Research held virtually.
199. Dr. Shreya Biswas presented a paper on the titled *Bank board diversity and bank outcomes in India* held during Oct 5-Oct 6, 2020 at the 10th Virtual International Corporate Governance conference held at Institute of Public Enterprises, Hyderabad
200. Dr. Shreya Biswas presented a paper on the titled *Internal governance structure and external audit quality- Are they complements or substitute in emerging market* held during Jan 22- Jan 24, 2020 at the NISM SEBI Changing Landscape of Securities Market conference held at NISM, Navi Mumbai.
201. Dr. Shreya Biswas presented a paper on the titled *Women inheritance and women empowerment: The impact of Hindu Succession Act in India* held during April 22- April 25, 2020 at the Population Association of America Annual Conference, Washington DC, USA held virtually, virtually.
202. Dr. Swati Alok presented a paper *Career Sustainability For Women Employees In Information Technology Sector: Role Of Career Identity, Gender Disadvantage, Work-Family Conflict & Psychological Capital* in the 6th World Conference on Women's Studies 2020, organized by International Institute of Knowledge Management (TIKIM), Colombo, Sri Lanka , 29th – 31st May 2020.
203. Dr. Mini P. Thomas and Radhika Gupta presented a paper titled *Role of Urban Cooperative Banks in Financial Inclusion: An Exploratory Study of Hyderabad and Rangareddy Districts* at the XV International Conference on Public Policy and Management, held at Indian Institute of Management Bangalore. 24-26 August, 2020.
204. Dr. Mini P. Thomas and Radhika Gupta presented a paper titled *Role of Urban Cooperative Banks in Financial inclusion: An Exploratory Study of Two Districts in India* presented in the VIII International Conference on Applied Research in Economics, organised by Higher School of Economics Russia. 21 September, 2020.
205. Dr. Anhiti Pattnaik, "Transgender Bodies in New Media Poetry," North Eastern Modern Language Association NeMLA Boston, 5-7 March 2020.
206. Dr. Anhiti Pattnaik, "Trials of Wilde and Manto," The Institute for World Literature, IWL Harvard University, 24 July 2020
207. Dr. Anhiti Pattnaik, Institute of World Literature, workshop conducted by Harvard University at University of Belgrade (virtual), 3-30 July 2020.
208. Dr. Lavanya Suresh, presented "*Social Resilience: The Role of Local Institutions in Addressing Vulnerability in Times of Crisis in the Context of the COVID Pandemic*", International Webinar on Rethinking the Role of Local Governments in a Post Covid-19 World organized by the Centre for Gandhian Studies, Central University of Kerala, Kasaragod, Kerala (India) & Centre for Rural Management (CRM), Kottayam, Kerala (India) from December 10th to 14th, 2020.
209. Dr. Lavanya Suresh, presented "*The Search for Alternative Irrigation Practices and the Politics of Water and Scarcity*", Third biennial conference of the Political Ecology Network (POLLEN) organized by the Institute of Development Studies, University of Sussex, UK from 22nd to 25th Sept, 2020.
210. Dr. Lavanya Suresh participated in the workshop on "*Workshop on Speculative Futurism*", Department of Physics and Earth Science at Framingham State University in Massachusetts, USA on 3rd August, 2020
211. Dr. Lavanya Suresh participated in the '*De-growth Vienna 2020: Strategies for Social-Ecological Transformation*', Institute for Social Ecology (SEC), Vienna from May 29th to June 1st 2020.
212. Dr. Santosh Mahapatra participated in *BAAL Online Conference 2020*, organized by British Association of Applied Linguistics, September 4, 2020.
213. Aswathy Raveendran presented a paper titled "Building a technical culture: Experiences of engineering students in a technical institute" at piSTEME-8: International Conference to Review Research on Science, Technology and Mathematics Education at Mumbai January 3-6 2020.

214. Dr. Pranesh Bhargava, presented in English Literature Summit - 2020, with the title, "Accuracy in Reporting Clinical Tests in Texts with Disability: Analyses of 'Flowers for Algernon' and 'My Name is Brain Brian'" (12th December, 2020).
215. Sujith R., Faraday Discussions on Chemistry of 2D Materials (Online), Royal Society of Chemistry, 25-27 November 2020.
216. Sujith R., International e-conference on Structural Materials for Nuclear and Aerospace Applications, Materials Division, BARC Mumbai, 3-6 December 2020.
217. Prabakaran Saravanan., International Tribology Research Symposium 2020, Tribology society of India (TSI), 5-7th December 2020.

Dubai Campus

i) National:

1. Prem Dakshin and Shashank Khurana, "Novel CAM Mechanism based Life-Support Ventilators in Animal Healthcare", 1st International & 13th National conference on Industrial Problems on Machines and Mechanisms (IPRoMM-2020), 21st-22nd December, 2020, Hyderabad, India.

ii) International:

1. Deepthi Mary Dilip (2020), Optimum design of flexible pavements in the presence of uncertainty using Subset Simulation, International Conference on Transportation and Development 2020: Highway and Airfield Pavements, pp 237-247.
2. Dr Shazia Hasan attended International Webinar on, "Physics Does Digital Optimization – for Machine Learning, Control Theory, Back Propagation", Jointly organized by MHRD-Institution Innovation Council, DDUC Chapter, Deen Dayal Upadhyaya College, University of Delh, July 28 2020.
3. Dr Shazia attended Faculty Development Program on, "Advances in Signal Processing and Machine Learning", Jointly organized by MHRD-Institution Innovation Council, DDUC Chapter, Deen Dayal Upadhyaya College, University of Delh, July 20–26, 2020.
4. Dr Shazia Hasan attended an International Webinar on "SMART CITY: Beyond the Pandemics", at BITS Pilani, July 10-11, 2020.
5. Dr.V.Kalaichelvi has participated on Faculty Development Program On Artificial Intelligence & Machine Learning Using Python held during July 13-24 2020 organized by Finland Labs in association with National Social Summit, IIT Roorkee.
6. .Dr.V.Kalaichelvi has participated on the Faculty Development Program on TELE 2.0 - Teaching Learning Digitally Redefined On 6th & 7th August 2020
7. Dr.V.Kalaichelvi attended webinars on Artificial Intelligence and Machine Learning on July 6, 2020, "How to use Microsoft teams effectively for Education organized by LLAGT, Wellness for Women during COVID-19 Pandemic on 22nd July 2020 organized by Annamalai University, Live Training on Data Science using Python on 8th August 2020 organized by Finland Labs.
8. Abdul Rajak presented paper on " Design and Analysis of High-Speed Phase Locked Loop in 180nm Technology", Industrial Electronics Mechatronics Electrical & Mechanical Power (IEMPOWER – 2019) organized by Institute of Engineering & Management, , at S.N Bose National Centre for Basic Sciences Kolkata, India, Kolkata 21st -23rd November 2019.
9. Dr R Swarnalatha has attended "IoT Boot Camp" organized by Turnip Innovations with YUPS Tech solutions, Mumbai, India, from 11 to 12th Sep 2020.
10. BITS., Sreekrishnan Venkateswaran., Santonu Sarkar (2019), "Time-Sensitive Provisioning of Bare Metal Compute as a Cloud Service", 2019 IEEE 12th International Conference on Cloud Computing (CLOUD), Vol. , no. , pp.447-451
11. "Time Series Prediction of Weld Seam Coordinates for 5 DOF Robotic Manipulator Using NARX Neural Network", Lecture Notes in Electrical Engineering, Vol. 659, no. , pp.537-545 (2020)
12. Abhilasha Singh., Kalaichelvi Venkatesan., Ramanujam Karthikeyan (2020), "Application of Convolutional Neural Network for Classification and Tracking of Weld Seam Shapes for TAL Brabo Manipulator", Materials Today: Proceedings, Vol. , no. , pp.-
13. Prem Dakshin., Shashank Khurana (2020), "Frustum CAM (FC) mechanism: Achieving differentiating feed in continuous production machines of non-similar parts", Materials Today: Proceedings, Vol. , no. , pp.-
14. Mukesh Singh Tomar., Shashank Khurana (2020), "A numerical study on the influence of different tunnel lining insulation materials in a road tunnel fire", Materials Today: Proceedings, Vol. , no. , pp.-
15. Mohommad Shapheek., Naveen Kumar Shrivastava (2020), "Optimization of cooling time for polyethylene fusion joints", Materials Today: Proceedings, Vol. , no. , pp.-

16. "Finite element simulation on effect of bevel angle and filler material on tensile strength of 316L stainless steel/Monel 400 dissimilar metal welded joints", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.1048-1053
17. "Optimization of tensile properties of 316L stainless steel and Monel 400weld joints using genetic algorithm", *Materials Today: Proceedings*, Vol. 27, no. 3, pp.2846-2851
18. "A micromechanical model to predict the viscoelastic response of syntactic foams", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.1200-1204
19. "Processing, microstructure and mechanical characterization of a new magnesium based multicomponent alloy", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.1044-1047
20. "Effect of hard facing processes on Mild steel A-36 by arc welding", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.526-531
21. "Development and characterization of sisal and jute cellulose reinforced polymer composite", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.556-561
22. "Thermodynamic modelling to optimize glass forming composition in multicomponent Zr-Cu-Co-Al system", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.1239-1244
23. "Corrosion characterization zinc coated SS304 stainless steel", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.1210-1215
24. "Turbocharging in ceramic coated engines using Rankine cycle for automotive use: An inceptive study", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.991-997
25. "Neural network for mechanical property estimation of multilayered laminate composite", *Materials Today: Proceedings*, Vol. 28, no. 2, pp.982-985
26. Ashish Vashishtha* and Shashank Khurana*, "On Unsteady Flow Analysis of a Round Spike Blunt-Nose Afterbody in Mach 6 Flow", 10th EASN Virtual International Conference on Innovation in Aviation & Space to the Satisfaction of the European Citizens, 2nd-4th September, 2020
27. Prajit Rawte and Priyank Upadhyaya, "Numerical Modelling of Bilayer Tetra Periodic Metamaterials to Predict the Elastic Response", *ICONMEAS 2020, Malaysia. Materials Today: Proceedings*
28. Adithya Thachappully Praveen, Raja Muthalagu, Sapna Sadhwani, "Genesis Net: Fine Tuned Dense Net Configuration using Reinforcement Learning" presented in 4th International Conference on Artificial Intelligence and Virtual Reality (AIVR2020), Japan, Will be published in *ACM International Conference Proceedings Series*, 2020.
29. Sruthi Janardhanan, Raja Muthalagu "Market segmentation for profit maximization using machinelearning algorithms' presented in International Conference on Advances in Physical Sciences and Materials, India, Published in *IOP Science : J. Phys.: Conf. Ser. 1706 012160*, 2020.
30. Raghav venkadesh, Raja Muthalagu "Network security prediction model using neural networks" presented in International Conference on Advances in Physical Sciences and Materials, India, Published in *IOP Science : J. Phys.: Conf. Ser. 1706 012167*, 2020.
31. Mohammed Afaounodden Ahmed, Raja Muthalagu "Descriptive Analysis on Products/Services demand and Market conspectus: A quantitative approach" Presented International Conference on Electrical Energy and Power Engineering, Malaysia, Will be published in *IOP Science: Materials Science and Engineering (MSE)*, 2020.
32. S. Jeyalatha, B. Vijayakumar, Web Usage Mining Algorithm for an Academic Search Application, International Conference on Computational Intelligence and Knowledge Economy, ICCIKE 2019, PaperID: ICCIKE-100, 11-12 Dec. 2019, AMITY University, Dubai, UAE.
33. Sasikumar K, Vijayakumar B, "An Efficient Replica Management Based Disaster Recover Using Elephant Herding Optimization Algorithm", *Proceedings of the International Conference on Computer Networks and Inventive Communication Technologies- ICCNCT 2019, LNDECT 44.PP 392-399*, 2020. Indexed in Scopus and Published in Springer Nature Journal as a special issue - Springer Nature Switzerland AG 2020, https://doi.org/10.1007/978-3-030-37051-0_45.
34. "Sentiment Analysis, Tweet Analysis and Visualization on Big Data using Apache Spark and Hadoop", Sujala D. Shetty, International Conference on Applied Scientific Computational Intelligence ASCI-2020, December 22-23 2020. To be published in *IOP Conference series (Scopus Indexed)* and Visualization on Big Data Using ache Spark
35. "Cybersecurity During COVID-19", Sheeba Uruj Ahmad, Sunidhi Kashyap, Dr. Sujala D. Shetty, Dr. Neeru Sood, Fifth International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2020) 11-12 December 2020. Paper will be published in *Springer Lecture Notes in Networks and Systems series (Scopus Indexed)*
36. Razia Sulthana A, Aakansha Mathur, "A State-Of-Art Of Machine Learning Algorithms Applied Over language Identification And Speech Recognition Models", International Virtual Conference on Cyber Physical systems July, 2020. to be published in *Lecture Notes in Electrical Engineering*

37. Razia Sulthana A, Aakansha Mathur, "A Study of Machine Learning Algorithms in Speech Recognition and Language Identification System", International Conference on Innovations in Computer Science & Engineering (ICICSE-2020). To be published in LNNS Springer Series
38. Tanzeeha Sulaiman, Angel Arul Jothi J., Bengani S., "Automated Grading of Diabetic Macular Edema Using Deep Learning Techniques", pp 264-272, 2020. In: Goel N., Hasan S., Kalaichelvi V. (eds) Modelling, Simulation and Intelligent Computing. MoSICom 2020. Lecture Notes in Electrical Engineering, vol 659. Springer, Singapore.
39. Tushar Agrawal and Siddhaling Urolagin, "2-way Arabic Sign Language translator using CNNLSTM architecture and NLP", Accepted in ACM, Ei Compendex and Scopus, ISI Web of Science, International Conference on Big Data Engineering and Technology BDET-20, Jan 2020 in Singapore.
40. Tushar Agrawal and Siddhaling Urolagin, "Multi-Angle Parking Detection System using Mask R-CNN", Accepted in ACM, Ei Compendex and Scopus, ISI Web of Science, International Conference on Big Data Engineering and Technology BDET-20, Jan 2020 in Singapore.
41. Keerthana Pramudi Suresh and Siddhaling Urolagin, "Android App Success Prediction Based On Reviews", Accepted in IEEE International Conference on Computation, Automation and Knowledge Management (ICCAKM - 2020), Jan 2020, Amity University, Dubai.
42. Sweta Suman and Siddhaling Urolagin, "Star Schema Based Data Warehouse Model for Education System using Mondrian and Pentaho", Accepted in Springer, Scopus and Web of Science indexed International Conference on Modelling, Simulation & Intelligent Computing, Jan 2020, BITS-Pilani, Dubai.
43. Jeel Patel and Siddhaling Urolagin, "Sentiment Analysis and Prediction of Point of Interest based Visitors' Review", Accepted in Springer, Scopus and Web of Science indexed International Conference on Modelling, Simulation & Intelligent Computing, Jan 2020, BITS-Pilani, Dubai.
44. Hariitha Harikrishnan and Siddhaling Urolagin, "Prediction of Stock Market Prices using Recurrent Neural Network - Long Short Term Memory", Accepted in Springer, Scopus and Web of Science indexed International Conference on Modelling, Simulation & Intelligent Computing, Jan 2020, BITS-Pilani, Dubai.
45. Shiva Kumar and Siddhaling Urolagin, "Bequest of RETE Algorithm for Rule Assessment in Con-text Database", Accepted in Springer, Scopus and Web of Science indexed International Conference on Modelling, Simulation & Intelligent Computing, Jan 2020, BITS-Pilani, Dubai.
46. Kokate P., Tamizharasan P.S. An Empirical Comparison of Generative Adversarial Network (GAN) Measures. International Conference on Advances in Communication and Computational Technology, Springer, Kurukshetra, India, pp. 1383-1396, August 2020.
47. Neeharika Senthilkumar, Neeru Sood, Trupti Gokhale and Mrutujanjaya Sahu (2020) Bioethics and Biosafety Policies and Practices in UAE: A Critical Review .Fifth International Conference on Emerging Research Paradigms in Business and Social Sciences (ERPSS 2020) Jan14-16 . Middle Sex University Dubai
48. Ramachandran Subramanian, Neeru Sood, Dionyssia Angeliki Lyra, Trupti Gokhale, Khalil Ammar, Prakash Kumar B G; Pennisetum purpureum (Napier grass) varieties for Animal Fodder Production; Gulf Forum on Innovations in Marginal Environments. Nov. 20-21, 2019, Al Habtoor Polo Resort, Dubai, UAE.
49. Mahima Raina presented a poster on Rethinking Gender in Work Family Management in India in the Division of Occupational Health Psychology Annual Conference of the British Psychological Society held at Stratford-upon-Avon, Warwickshire, United Kingdom during 8-10 January 2020.
50. Mrutujanjay Sahu, Neeharika Senthilkumar, Neeru Sood, and Trupti Gokhale presented a paper on Bioethics and Biosafety Policies and Practices in UAE: A Critical Review in the Fifth International Conference on Emerging Research Paradigms in Business and Social Sciences (ERPSS 2020) held at Middlesex University Dubai, during 14-16 January 2020.
51. Mrutujanjaya Sahu, Aditya Singh Rathaur and Siddhartha Mahendra presented a paper on The Amazons of the Business World: Research Review and Further Directions in the Fifth International Conference on Emerging Research Paradigms in Business and Social Sciences (ERPSS 2020) held at Middlesex University Dubai during 14-16 January 2020.
52. Shazi Shah Jabeen and Zakia Sadique presented a paper on Factors Influencing the Adoption of E-Learning in Educational and Corporate Sectors in the 12th annual International Conference on Education and New Learning Technologies (EDULEARN20) held at Palma de Mallorca, Spain. during 6-7 July 2020. (Virtual)
53. Prakash R., Vihari, N.S., & Jabeen S.S. presented a paper on Supply Planning & Inventory Management Transformation Journey of a Leading Fashion Apparel Business - Landmark Group in MENA Region: An Analytical Case in the Jaipuria International Management Conference-Envisioning Business 2030 held at Indore, India, during July 17-18, 2020.

54. Muzammil, M., & Vihari, N.S. presented a paper on Determinants for the Adoption of RegTech services by the Companies in UAE: An MCDM Approach in the Collaborative European Research Conference (CERC 2020) held at Belfast, Northern-Ireland during September 10-11, 2020.
55. Prince R., Vihari, N.S., & Rao, M.K. presented a paper on Examining the Effects of Sustainable HRM on Employee Work Wellbeing: The Role of Voice Behavior and Trust in Management in the 12th International Conference on Competitiveness and Stability in the Knowledge-Based Economy held at University of Craiova, Craiova, Romania, during October 30-31, 2020.
56. Mrutuyanjava Sahu and Aarthi. S.V presented a paper on Migration Policy and Governance in the GCC States in the International Conference on Migration, Diasporas and Sustainable Development: Perspectives, Policies, Opportunities and Challenges organized by Migration Forum Asia held at New Delhi during 2-5 November 2020.
57. Shamshad Ahmad Khan presented a paper in the 18th Asia Pacific Conference organized by Ristsumeikan Asia-Pacific University, Japan, on November 15, 2020 (virtual mode).
58. Veena, Jabeen. S.S., & Vihari N.S. presented a paper on Does Sustainable HRM Impact Employee Work Wellbeing? - Empirical Evidence from UAE in the 4th International Conference on Advances in Business and Law held at University of Dubai, Dubai, UAE, during November 21-22, 2020.
59. Mrutuyanjava Sahu and Aarthi. S.V presented a paper on Practices of Corporate Social Responsibility in the UAE Banking Sector: A Critical Assessment in the 4th International Conference on Advances in Business and Law in Dubai held at University of Dubai during 21- 22 November 2020.
60. Mrutuyanjava Sahu, Yatharth Kher and Kartikey Ray presented a paper on Entrepreneurship and Economic Development in UAE: Challenges and Opportunities in the 4th International Conference on Advances in Business and Law in Dubai held at University of Dubai during 21- 22 November 2020.
61. Shazi Shah Jabeen attended an online workshop on Social Media and Podcasting Lab conducted by Edulearn20 on 6 July 2020.
62. Shazi Shah Jabeen attended an online workshop on Distance Learning Design with Google Masterclass conducted by Edulearn20 on 6 July 2020.
63. Shazi Shah Jabeen attended an online workshop on Hand-Made Maths Games for Creative Thinking conducted by Edulearn20 on 7 July 2020.
64. Shazi Shah Jabeen attended an online workshop on Digital Storytelling for Education - The State of the Art conducted by Edulearn20 on 7 July 2020.
65. Shazi Shah Jabeen attended an online workshop on Distance Learning Facilitator Masterclass conducted by Edulearn20 on 7 July 2020.
66. Shazi Shah Jabeen attended an online workshop on Distance Learning Design with Google Masterclass conducted by Edulearn20 on 6 July 2020.

Faculty Research Area

Pilani Campus

Department	Name of faculty	Research Area
Biological Sciences	S.K Verma	Environmental & Microbial Biotechnology
	Ashis Das	Molecular Parasitology
	Shibasish Chowdhury	Computational Biology
	Jitendra Panwar	Environmental & Microbial Biotechnology
	Rajesh Mehrotra	Plant Biotechnology
	Pankaj Sharma	Plant Biotechnology and Biochemistry
	B. Vani	Environmental & Microbial Biotechnology
	Uma S Dubey	Cancer biology
	Prabhat Nath Jha	Environmental & Microbial Biotechnology
	Vishal Saxena	Molecular Parasitology
	Sandhya Mehrotra	Plant Biotechnology
	Shilpi Garg	Molecular Parasitology
	Rajdeep Chowdhury	Cancer biology
	Sudeshna Mukherjee	Cancer biology
	Sandhya Marathe	Host-Microbe Interaction
	Manoj Kannan	Computational Biology
	Meghana Tare	Chronic diseases
	SyamantakMajumder	Chronic diseases
Manoj Kannan	Computational Biology	
Chemical Engineering	Ajay Kr. Pani	Soft computing, Process Modeling, Process Control
	Amit Jain	Decentralized control of multivariable processes, Desalination and wastewater treatment techniques
	Arvind Kr. Sharma	Environmental Engineering, Fluidization, Adsorption, Biochemical Engineering, Separation Processes, Fluid Mechanics, Modeling and Simulation
	Banasri Roy	Biomedical Materials, Renewable energy, Nano catalysts, Fuel cell materials, Solar cell devices, Solar cell materials, Photocatalysts
	B V Prasad	Process Control, Proess, Modelling and Simulation, Educational Administration, Univeristy – Industry Collaborations
	BhanuVardhan Reddy K	Membrane Separations, Computational Fluid Dynamics
	Hare Krisna Mohanta	Advanced Process Control, Process Monitoring and Control, Modeling and Simulation, Reactive Distillation, Catalytic pyrolysis of petroleum for production of petrochemical feedstocks, Applied wavelet analysis
	Pradipta Chattopadhyay	Aqueous foam generation characteristics, Foam and foam modeling, Impact of surfactants on aqueous foam development, Delayed Coking operation in Petroleum Refining
	Priya C Sande	Computational Fluid Dynamics (CFD) simulation for gas-solid fluidization, Petroleum and Petrochemical industry practices
	Raman Sharma	Oxy-combustion CO ₂ capture using Chemical-Looping, Fluidized Bed Operations, Solid Fuel Combustion, Flue Gas Sampling, Particulate Matter Sampling, Emissions Trading under Clean Development Mechanism (CDM).
	Samir R Kale	Process Plant Safety, Design of Process Technologies, Mass and Health Integration.
	Santosh Khandagave	Chemical Engineering Process Modeling, Simulation and Optimization, Extractive metallurgy, Transport phenomenon, Energy and environmental engineering, Bio chemical engineering
	Sheth Pratik Nitinchandra	Biomass Gasification, Modeling and Simulation, Process Control, Computational Fluid Dynamics (CFD), Pyrolysis, Process Design
Smita Raghuvanshi	Environmental Engg (Biofiltration of VOCs & metal ions) Environmental Engg (CO ₂ mitigation using biobased techniques using pure strain of algae & mixed culture), Environmental impact assessment of various processes, Life cycle assessment of process industries	

Department	Name of faculty	Research Area
	Srinivas Appari	Catalysis, Micro - Kinetic Modeling.
	Suresh Gupta	Environmental Engineering & Separation Processes, Removal of Pollutants Using Adsorption (Low-cost adsorbents, Nano-adsorbents), Bio-based Pollutant Removal Techniques (Biofiltration, Biosorption), Wastewater Treatment, Mathematical Modeling and Simulation of Chemical Processes, Computational Transport Phenomena, Environmental Management Systems (LCA, EIA), Energy Integration
	Dr. Abhishek Dhoble	Biochemical and bioprocess engineering/Biotechnology Agro-processing, Soil health, Microbiological milk quality evaluation, Sustainable rural development, Microbiome engineering, Bio-digesters, Cytometric fingerprinting and machine learning (CFML) Nanotoxicity Chemical and biosystems engineering (ChemBioSys) space missions
	Dr. Somak Chatterjee	water treatment, sensors and specialized surfaces, extraction of biocides, aesthetic design and novel chemical formulations
	Dr. Arghya Banerjee	Heterogeneous Catalysis, Computational Catalysis, Molecular modelling, Biomass Conversion, syngas/Co2 Conversion
	Prof. S. C. Sivasubramanian	Physical Chemistry/Electron Paramagnetic Resonance
	Prof. Subit Kumar Saha	Physical Chemistry/Soft Matter
	Prof. Ram Kinkar Roy	Physical/Theoretical Chemistry
	Prof. Dalip Kumar	Synthetic Organic and Medicinal Chemistry
	Prof. Anil Kumar	Organic/Medicinal Chemistry
	Prof. Saumi Ray	Materials/Inorganic Chemistry
	Prof. Ajay Kumar Sah	Inorganic Chemistry/ Catalysis/ Biochemistry
	Prof. Bharti Khungar	Inorganic Chemistry/Catalysis/Green Chemistry
	Prof. Inamur Rahaman Laskar	Materials and Inorganic Chemistry
	Dr. Madhushree Sarkar	Supramolecular Chemistry and Crystal Engineering
	Dr. Prashant U. Manohar	Computational Chemistry Software Development
	Dr. Paritosh Shukla	Organic and medicinal chemistry
	Dr. Indresh Kumar	Organic synthesis & medicinal chemistry
	Dr. SurojitPande	Inorganic/Materials Chemistry
	Dr. Rajeev Sakhuja	Organic & Medicinal Chemistry
	Dr. Shamik Chakraborty	Physical Chemistry
	Dr. Bibhas Ranjan Sarkar	Catalysis/ Materials/ Inorganic Chemistry
	Prof. Ashoke Kumar Sarkar	Transportation Planning, Rural accessibility and pavement maintenance
	Prof. Rajiv Gupta	Fluid Structure Interaction, GIS & Remote Sensing, Passive solar architecture, concrete technology
	Prof. Shamsher Bahadur Singh	Structural Engineering, Finite Element Modeling, Composite Structures
	Prof. Ajit Pratap Singh	Water Resources Management, Surface and Ground Water Quality Modeling using Numerical Methods & Soft computing techniques, Environmental Engineering and Pavement Management Systems
	Prof. Manoj Kumar	Finite Element Analysis of Structures, Post-peak behavior of Highway Bridges, Seismic analysis of shear wall structures
	Prof. Anshuman	Finite Element Methods, Computer Aided Design, Concrete Technology
	Prof. Ravi Kant Mittal	Geotechnical earthquake Engineering, Seismic design of foundations, Liquefaction of Soil, Ground Improvement techniques, Static & Dynamic behavior of soil reinforced with waste tire chip & fiber
	Prof. Anupam Singhal	Hazardous Waste Management, Advanced water & waste water treatment techniques, air pollution abatement and environmental impact assessment
	Dr. Kamalesh Kumar	Ground improvement techniques, geotechnical engineering
	Dr. Dipendu Bhunia	Performance Based Seismic Design, Earthquake Resistant Design of Structures, Concrete Technology, Energy efficient building
	Dr. S.N. Patel	Dynamic instability of laminated composite stiffened/unstiffened structures
	Dr. Shibani KhanraJha	Modeling and simulation of geo-thermal reservoir, Multi-phase flow modeling
	Dr. Prasanta Kumar Sahu	Transportation planning, freight transportation modeling, statistical analysis of highway/freight traffic data, traffic-weather modeling
	Dr. G. Muthukumar	Earthquake resistant analysis & design of concrete structures, non-linear

Department	Name of faculty	Research Area
		finite element response analysis
	Dr. Durgesh Vikram	Traffic Engineering, Traffic flow theory, routing and scheduling of mass transportation systems
	Dr. Rajesh Kumar	Stability of Structures, Non-linear dynamics, Inverse problem of engineering, Structural health monitoring, Composite structures
	Mr. R. Srinivas	Fuzzy logic application, optimization, modeling in Environment and water resource planning and management
	Prof. Sudhirkumar Barai	Structural Health Monitoring Recycled Construction Materials Fracture in Concrete Data analytics and Soft Computing Applications
	Dr. Mukund Lahoti	Geopolymers for various applications (Fire-resistance, ductile composites, self-healing, green construction material, etc.), Concrete Technology and Alternate construction materials (waste-to-resource)
	Dr. Nishant Roy	Seismic Behavior of Underground Structures Tunnel Construction in Difficult Ground Conditions and Slope Stability
	Krishna M	Employment, Small Business, Energy Economics, Public Policy.
	Geetilaxmi Mohapatra	Environmental, Energy and Development Economics
	Rajan Pandey	Volatility Modeling and Forecasting, Corporate Finance
	Arya Kumar	Entrepreneurship, Financial Management, Energy–Manpower Economics, Values in Management, Capital Markets, Banking
	NVM Rao	Parameter Identification and Estimation in SEM; Economics of Strategy; Financial Economics, Financial Inclusion, e-Governance & Digital Revolution; Behavioral Economics and Finance, Risk Management; Health Economics & Healthcare Management; Economic Development; Economics of Education
	Monika Gupta	Environmental Economics and Policy, Energy Economics, Transport Economics, and GHG Emissions
	Prof. A. K. Giri	Macroeconomics, Monetary Economics, Applied Econometrics, Financial Economics, Financial Inclusion, Inclusive Growth, Development Finance, Development Economics, Resource and Environmental Economics
	Dr. Navneet Gupta	Device Modeling, Computational Material Science, Electromagnetics and Antennas
	Dr. Chandra Shekhar	VLSI, Embedded System, Microelectronics
	Dr. Anu Gupta	Low power Mixed Signal VLSI Design, HDL Synthesis and FPGA Architectures, Low Power Analog and Digital Circuits Design, ASIC Design
	Dr. V K Chaubey	Optical Wave Guides and Integrated Optics, Wireless & Optical Communication
	Dr. S Gurunarayanan	Embedded Systems, Digital Design, VLSI Architecture
	Dr. Surekha Bhanot	Virtual Instrumentation, AI Techniques in Instrumentation & Process Control, Biomedical Signal Processing
	Dr. Hari Om Bansal	Electrical Power System, Voltage Stability Analysis, Control System A I Techniques
	Dr. Hitesh DattMathur	Electrical Power Systems, AI Techniques in Power Systems, MATLAB in Power Systems
	Dr. Dheerendra Singh	Power Electronics, Power System, Hybrid Compensators, FACT and HVDC
	Dr. Karunesh Kr Gupta	Digital Signal Processing, Instrumentation
	Dr. Rajneesh Kumar	Electronics and Control, Soft Switching Invertors
	Dr. Abhijit Rameshwar	High Performance VLSI Data Path Design, Microprocessor Design, Micro-coded Controller Design, NBTI Degradation issues
	Dr. Praveen Kumar A.V	Microwave electronics - antennas and material characterization, Particle accelerators - RF cavity and beam dynamics
	Dr. Rahul Singhal	Polymer Waveguide, Optical Waveguide
	Dr. Sainath Bitragunta	Communication Systems, Modeling, Design, and analysis
	Dr. Arnab Hazra	Electronic Devices, Nanomaterials, Graphene, Chemical Sensor, Resistive RAM
	Dr. Anantha krishna	Biomedical Signal Processing, Auditory Models, Digital Signal Processing,

Department	Name of faculty	Research Area
	Chintanpalli	Speech Processing and Perception, Time-Frequency analyses.
	Dr. Pawan Kamalkish Ajmera	Signal Processing; Biometrics
	Dr. Nitin Chaturvedi	VLSI Design, Computer Architecture
	Dr. Nilanjan Chattaraj	Smart materials based devices and systems, Electromechanical devices and systems
	Dr. Asutosh Kar	Signal Processing, Adaptive Filters, Acoustics
	Dr. Vinay Chamola	Green Cellular networks, Internet of Things, Renewable energy powered systems
	Dr. Mahesh Angira	Microelectronics and VLSI
	Dr. Puneet Mishra	Process Control Intelligent Adaptive Control Control Valves Stiction Nonlinearity
	Dr. Sujan Yenuganti	Design and development of sensors using smart materials (Piezo, SMA etc) MEMS Sensors and Actuators Design and development of Biomedical sensors
	Dr. Bijoy Kumar Mukherjee	Nonlinear, Robust and Intelligent Control Aircraft and Spacecraft Flight Dynamics and Control
	Dr. Syed Mohammad Zafaruddin	Communications Systems, Distributed Signal Processing, Machine Learning, Wireless Sensor Networks, 5G, DSL.
	Dr. Meetha V. Shenoy	Development of autonomous systems (multi-robot systems, swarm-robot systems) - Aspects of hardware architecture, network architecture and algorithms for mobility, co-ordination and data fusion, Development of Networked Embedded Systems- Wireless sensor networks, IoT Systems Deep Learning in Robotics, Networked Systems Real time operating systems, Utilization of Hybrid (CPU+FPGA, CPU+GPU) & reconfigurable architectures for autonomous systems development
	Dr. Rupam Goswami	Simulation and Modeling of Semiconductor Devices, Random Number Generators, Charcoal Electronics, Memristors
	Dr. Pankaj Arora	Optical sensors, Plasmonics, Imaging Microscopy, Silicon Photonics, Microfluidic devices, Light-matter interaction at nanoscale, Solar Cells
	Dr. G Sai Sessa Chalapathi	Edge Computing, Internet of Things, Wireless Sensor Networks, Embedded Systems, Computer Architecture
	Dr. Aditya R Gautam	Control of power electronics converters, Microgrids, Electric Vehicles and Renewable energy technology
	Dr. Shishir Maheshwari	Digital signal and image processing for bio-medical signal and image analysis. Machine/deep learning based techniques for signal and image classification. Time-frequency analysis of signals
	Dr. Sayendra Kumar Maurya	VLSI Technology, Nano Science and Nanotechnology
	Dr. Gajendra Singh Chauhan	Applied Linguistics, Media Studies, Business & Advertising Communication, and Soft Skills
	Dr. Anil Rai	Science and Logic, working behind world wide music and its practical application in stage performances
	Dr. Anupam Yadav	Continental Philosophy Philosophy of Social Sciences
	Dr. Devika Sangwan	Feminism, Literature, Creative writing, Cinematic Adaptation
	Dr. Hari Nair	Intellectual History and Political Thought
	Dr. Kumar Neeraj Sachdeva	Normative Ethics; Ethical Issues in Professions; Indian Philosophy
	Dr. Kumar Sankar Bhattacharya	English Literature, Cultural Studies, Postcolonial Theory, Indian Writing
	Dr. Pushp Lata	English Language Teaching, Professional Communication, Language, Culture and Communication
	Dr. Rajneesh Choubisa	Psychology, Organizational Psychology, Positive Psychology, Online Behavioral Sciences
	Dr. SK Choudhary	Linguistics & Phonetics; ELT; Soft Skills
	Dr. Sailaja Nandigama	Environment & Development Studies, Political Science, Public Policy,

Department	Name of faculty	Research Area
		Human Rights, Gender Studies
	Dr. Sangeeta Sharma	Advertising and Communication, Gender Studies
	Dr. Somdatta Bhattacharya	English Literature, Cultural Studies, Urban Studies
	Dr. Sunita Raina	Science and Technology Studies (STS), Sociology, Globalization Studies, Development Studies
	Dr. Sushila Shekhawat	Film Studies; English Literature; Mass Communication
	Dr. Tanu Shukla	Psychology; Education
	Dr. Virendra Singh Nirban	Technology Acceptance Behaviour, Technology enabled education and Communication, Computer Mediated Communication
	Dr. Veena Ramchandran	Political Theory, Political Sociology, International Relations Theory, Chinese Domestic Politics, Harmony and Stability Discourse in China, Minority Issues in China, China and Islam, Chinese Foreign Policy, OBOR
	Prof. Leela Rani	Sustainable consumption, online brand equity and consumer behavior, retail & consumer behavior, services marketing and e-business productivity
	Prof. Anil K Bhat	Marketing research Methodologies/Multivariate Statistical Methods, Strategic Marketing/Social Media Marketing/Post Modern Marketing/Brand Management, Risk Management/Entrepreneurship/Innovation & Business Creativity, Indian Management/Business Ethics and Corporate Social Responsibility and Quality and Business Excellence/Supply Chain Management
	Dr. Jayashree Mahesh	Cross Cultural Comparative Management, International Human Resource Management, Managerial Communication, Indian Management - Management Practices of Indian and Global companies, Performance Management in Indian and Global companies, Management Practices in Higher Education Institutes and Understanding Career Path of Millennials
	Dr. Jyoti Tikoria	Technology Management, R&D Management, Entrepreneurship
	Dr. Neetu Yadav	Strategic Management, Sustainable Strategies, Campus Sustainability, Enterprise Performance Management and System Dynamics
	Dr. Praveen Goyal	Corporate Sustainability Assessment, Strategic Management and Marketing Performance, Value Co-creation
	Dr. Rajesh Matai	Facility Layout/Location Problem, Combinatorial Optimization Problems, Applications of Theory of Constraints and Meta-Heuristics like GA, SA and Tabu Search
	Dr. R. Raghunathan	Entrepreneurship, Health care, Strategy
	Dr. Mohammad Faraz Naim	Generational research (Gen Y or Millennials & Gen Z), Talent management, Knowledge management HR Technology, Employer branding
	Dr. Satyendra K Sharma	Supply chain management, Distribution management, Risk management, Project portfolio management, Best practices in project management, Supply and market intelligence
	Prof. Udayan Chanda	Marketing Models, Technology Leakage and Valuation, Inventory Modeling, Software Reliability Growth Modeling, Dynamic Optimization Techniques, Technology Credit Risk, Bayesian Network.
	Dr. Achint Nigam	Bionanotechnology, Nano-fertilizers, Plant-microbe interactions, Microbial and Mycorrhizal Biotechnology, AMF Root Organ Culture, Microbial decomposition, Bioremediation, Biomineralization, Soil biological health indicators, Microbial molecular biology
	Dr. Saurabh Chadha	Capital Structure, Working Capital Company Valuation, Mergers and Acquisitions, Asset Valuation, Investment Research, Corporate Finance and Related Areas
	Dr. Nirankush Dutta	Online Social Media Marketing, e-Commerce, Digital Marketing, Green Marketing
	Prof. Balram Dubey	Mathematical Modelling
	Prof. C.B. Gupta	Statistical Inference, Operations research
	Prof. Rajiv Kumar	Differential Equations, Nonlinear Analysis
	Prof. P H Keskar	Algebra, Algebraic Geometry
	Prof. Chandra Shekhar	Queueing theory, Fuzzy logic, Statistical inference
	Prof. Rakhee	Applied Probability Theory & Queueing Modelling
	Prof. B.K. Sharma	Computational Fluid Dynamics
	Dr. Shivi Agrawal	Fuzzy Set Theory, Neural Networks

Department	Name of faculty	Research Area
	Dr. Trilok Mathur	Fractional Calculus, Geometric Function Theory
	Dr. Devendra Kumar	Singular perturbations, Numerical solutions of ODEs & PDEs
	Dr. Ashish Tiwari	Fluid Mechanics
	Dr. Sangita Yadav	Finite Element Methods
	Dr. Suresh Kumar	Cosmology
	Dr. Aniruddha Singh Rana	Fluid dynamics, Computational fluid dynamics, Kinetic theory Non-equilibrium thermodynamics, Computational and mathematical rheology, Finite-Volume methods for hyperbolic-parabolic equations, Monte- Carlo methods Molecular dynamics
	Dr. Jitender Kumar	Algebra
	Dr. Sumanta Pasari	Probability and Statistics
	Dr. Krishnendra Shekhawat	Geometric Graph Theory, Computational Design
	Dr. Rajesh Kumar	Uncertainty Quantification, Low Rank Approximation of Tensors, Partial- Integro Differential Equations, Hyperbolic Conservation Laws
	Dr. Gaurav Diwadi	Elliptic Partial Differential Equations
	Dr. Divyum Sharma	Diophantine approximation and Diophantine equations Transcendental Number Theory, Distribution of sum-of-digits functions
	Dr. G. Venkiteswaran	Numerical Solution of PDEs
	Dr. Padma Murali	Mathematical Modelling
	Dr. R. N. Saha	Pharmaceutics and Pharmacokinetics
	Dr. R. Mahesh	Medicinal Chemistry
	Dr. Hemant R. Jadhav	Natural Product Chemistry
	Dr. S. Murugesan	Medicinal Chemistry
	Dr. Gaikwad Anil Bhanudas	Pharmacology
	Dr. Rajeev Taliyan	Pharmacology
	Dr. Atish T. Paul	Natural Product Chemistry
	Dr. Anil Jindal	Pharmaceutics
	Dr. Deepak Chitkara	Pharmaceutics
	Dr. Sunil Kumar Dubey	Pharmaceutical Analysis, Pharmaceutics, Pharmacokinetics
	Dr. Anupama Mittal	Pharmaceutics
	Dr. Gautam Singhvi	Pharmaceutics and Pharmacokinetics
	Dr. Aniruddha Roy	Pharmaceutics, Drug Delivery
	Dr. Murali M Pandey	Pharmaceutics
	Dr. Sandeep Sundriyal	Medicinal Chemistry
	Dr. Richa Shrivastava	Pharmacology and Toxicology
	Dr. Vaibhav A Dixit	Pharmaceutical Chemistry
	Dr. R. R. Mishra	Condensed Matter (Theory)
	Dr. D. Bandyopadhyay	Condensed Matter (Theory)
	Dr. Kusum Lata	Atomic Physics (Theory)
	Dr. Anshuman Dalvi	Condensed Matter (Experiment)
	Dr. D. D. Pant	Spectroscopy (Experiment)
	Dr. S. Sindhu	Condensed Matter (Experiment)
	Dr. R. Choubisa	Atomic Physics (Theory)
	Dr. R. K. Gupta	Condensed Matter (Experiment)
	Dr. V. Manjuladevi	Condensed Matter (Experiment)
	Dr. Srijata Dey	Condensed Matter (Experiment)
	Dr. Rishikesh Vaidya	Theoretical Particle Physics
	Dr. Niladri Sarkar	Condensed Matter (Theory)
	Dr. Navin Singh	Soft Condensed Matter (Theory)
	Dr. B. Layek	Theoretical Particle Physics
	Dr. Madhukar Mishra	Theoretical Particle Physics

Department	Name of faculty	Research Area
	Dr. Kaushar Vaidya	Observational Astronomy
	Dr. Tapomoy G Sarkar	Theoretical Cosmology
	Dr.J.N. Bandyopadhyay	Complex systems
	Dr. S. Gangopadhyay	Condensed Matter (Experiment)
	Dr. A. Holkundkar	Plasma Physics
	J. P. Misra	Computer Architecture, Embedded Systems & Robotics(File System related Issues for Real time and Embedded Systems, Electronic System Design) High Performance Computing and Distributed Systems(Distributed Computer Control System)
	Sudeept Mohan	Computer Architecture, Embedded Systems & Robotics.
	Navneet Goyal	High Performance Computing and Distributed Systems (HPC Framework for Data Mining) Artificial Intelligence; Machine Learning; Data Mining; Big Data Analytics - Domain Specific Computing Systems; Data Provenance for Relational and NoSQL Databases
	Shan Balasubramaniam	High Performance Computing and Distributed System(Distributed Computing and Service Oriented Architecture) Algorithms & Theoretical Computer Science(Programming Language Theory & Formal Methods)
	Mukesh Kumar Rohil	Image Processing & Multimedia(Multimedia Computing, Computer Graphics, Computer Vision, Image Processing, Geographical Information Systems).
	Poonam Goyal	Machine Learning, Data Mining (Parallelization of Data Mining Algorithms, Information Retrieval, Image Retrieval, Genome Sequence Assembly Algorithms, HPC Framework for Data Mining)
	Yashvardhan Sharma	Software Engineering - OOAD, Testing Sentiment Analysis - Text Summarization, Spam and Sarcasm Detection, NLP tools for Indian Languages Data Warehousing - ETL, Indexing Techniques Machine Learning based Systems Software Application Development.
	K. Hari Babu	Software Defined Networking, Network Function Virtualization, Cloud Computing, P2P Systems.
	Virendra Singh Shekhawat	Networking and Distributed Systems, Inter Robot Communication in Mobile Adhoc Networks, Delay Tolerant Networking, Software Defined Networking
	Vishal Gupta	Networking and Mobile Computing(802.11 networks and Multi Criteria Decision Making techniques within the domain of Vertical Handover in 3G-WLAN Interworking environment. Ranking algorithms of search engines).
	Vandana Agarwal	Pattern Recognition, Machine Learning, Computational Intelligence, Brain Computer Interface.
	Avinash Gautam	Embedded Systems & Robotics (Cooperative robotics), Distributed Computing, Distributed Artificial Intelligence, Agent Based Systems.
	Sundaresan Raman	Medical Image Analysis, Computer Graphics , Scientific Visualization.
	Abhishek Mishra	Algorithms & Theoretical Computer Science(Algorithms, Computational Complexity)
	Lavika Goel	Nature inspired intelligence, optimization algorithms, hybrid intelligent techniques, Soft Computing, artificial intelligence, remote sensing, image processing, machine learning, computational intelligence, pattern recognition.
	Kamlesh Tiwari	Machine Learning, Cognitive Computing, Computer Vision, Multimodal Biometric (Fingerprint, Face, Palmprint, Knuckleprint) and Security.
	Ashutosh Bhatia	Computer networks, Wireless Networks (WSN, MANET, VANET, BAN), Software Defined Networking, Network Function Virtualization and Internet of Things.
	Amit Dua	Computer Networks, Ad hoc networks, Network Security, Game theory.
	Mayuri A. Digalwar	Multi-processor/Multi-core Computer Architecture, Real Time Embedded Systems, Power Aware and Sustainable Computing.
	Shashank Gupta	Web Security (Script Injection Attacks, Cross-Site Scripting Vulnerabilities, BotNet Detection, Phishing), Fog Computing, Cloud Security, Block Chain Security, Online Social Network (OSN) Security.
	Dr. Pratik Narang	Machine Learning, Deep Learning, Cyber Security
	Dr. Rajesh Kumar	Dependability and high performance computing, Cyber-physical systems, Cyber-security risk management
	Dr. Vaibhav Soni	Wireless Sensor Networks, Ad Hoc Networks

Department	Name of faculty	Research Area
	Dr. Sadhana Jha	Wireless Sensor Networks, Ad Hoc Networks
	Dr. Jagat Sesh Challa	Big Data Analytics, Streaming Data, High Performance Computing, Data Structures
	Dr. Abhishek	Natural Language Processing, Machine Learning
	Dr. Amitesh Singh Rajput	Privacy-Preserving Cloud based Data Computing
	Dr. Jatini Bedi	Data Mining, Machine Learning, Predictive Analytics, Text Mining and Big Data
	Jennifer Ranjani J	Digital Image Processing, Remote Sensing, Medical Image Analysis, Data Hiding and Internet of Things.
	Prof. Souvik Bhattacharyya	Thermal Science & Natural Circulation Loops
	Prof. R.K.Mittal	Robotics
	Prof. Mani Sankar Dasgupta	Design, Simulation
	Prof. Kuldip Singh Sangwan	Manufacturing
	Prof. P. Srinivasan	Production Engineering
	Dr. Arun Maity*	Project Management, Manufacturing Excellence
	Dr. P. B.Venkatraman*	Decision analysis.
	Prof. Bijay Kumar Rout	Quality, Reliability, Operations Research and Robotics
	Prof. Abhijeet K Digalwar	Manufacturing Engineering and Management
	Prof. Srikanta Routroy	Supply Chain Management, Production Planning and Control, Optimization
	Prof. Manoj Kumar S Soni	Solar Thermal and Thermal Engineering
	Dr. Sharad Shrivastava	Biomedical Engg, Engineering Materials
	Dr. Ravi Shrikrishna Reosekar*	Manufacturing Organization and Management
	Prof. R P Mishra	Manufacturing Systems Engineering
	Dr. Pavan Kumar Potdar*	Materials Management, Manufacturing Management
	Dr. Naga Vamsi Krishna Jasti*	Lean Manufacturing
	Dr. Jitendra Singh Rathore	Nano System and Fluidics
	Dr. Sachin U Belgamwar	Materials Engineering and MEMS
	Dr. Amol M. Marathe	Nonlinear vibrations
	Dr. Sudeep Kumar Pradhan*	Supply chain Management, Operation Management
	Dr. Palla Murali	Solid Mechanics, Materials Science
	Dr. ArunJalan	Dynamics, Vibration
	Dr. Srinivas Kota*	Product Design, Life Cycle Assessment
	Dr. Tufan Chandra Bera	Manufacturing
	Dr. Shyam Sunder Yadav	Computational Fluid Dynamics
	Dr. Prateek Kala	Advanced Manufacturing Processes
	Dr. Girish Kant	Manufacturing Engineering
	Dr. Varun Sharma	Rapid Prototyping, Advanced Manufacturing Processes
	Dr. Akash Chand Rai	Air pollution: measurements, modeling, and control
	Dr. Simanchal Kar	Surface coating and Manufacturing Technology
	Dr. Arindam Das	Nano Materials
	Dr. Venkatesh Kadbur Prabhakar Rao	MEMS, NEMS, Dynamics
	Dr. Keyur B Joshi	Fluid structure interaction
	Dr. Gajanand Gupta	Manufacturing, Reliability based Maintenance
	Dr. Dinesh Wamanrao W. *	Thermal Engineering
	Dr. Uma Maheswari N*	Thermal Engineering
	Dr. Raghu Raman	Thermal Engineering

Department	Name of faculty	Research Area
Biological Sciences	Utpal Roy	Applied and Theoretical Research on Antimicrobials
	Meenal Kowshik	Nanobiotechnology
	Judith Maria Braganca	Biodiversity and Biotechnology of Archaea
	Srikanth Mutnuri	Bioremediation
	Veeky Baths	Cognitive Neuroscience, Computational Systems Biology, Computational Neuroscience
	Anasuya Ganguly	Cell and Molecular Biology
	Dibakar Chakrabarty	Drug leads from animal toxins
	Vijayashree Nayak	Nanobiotechnology
	Sumit Biswas	Structural Biology, Biophysics, Bioinformatics, Molecular Biology
	Angshuman Sarkar	Cell Biology, Cell and tissue culture technology, Cancer Biology, Nanotoxicology
	Malabika Biswas	Molecular Biology, Biotechnology
	Sukanta Mondal	Bioinformatics, Computational Biology
	Kundan Kumar	Plant Biotechnology
	Indrani Talukdar	RNA Biology, Stem cell research
	Arnab Banerjee	Reproduction, neuroendocrinology, metabolic disorder
	Raviprasad Aduri	Biophysics, Computational Biology
	Chemical Engineering	Saroj Sundar Baral
Srinivas Krishnaswamy		Addressing challenges posed in developing practical cost effective, energy efficient and environment friendly systems from a commercialization point of view (Unmixed Combustion, Applied Process Thermodynamics, CO ₂ conversion to useful products, Process Intensification in Separation and reactor systems)
Sutapa Roy Ramanan		Nano-biomaterials for labelling and drug delivery, electroceramic nano powders, thermal interface materials for electronic packaging, thin films for optical and electronic applications
S. D. Manjare		Fuel Cell (High Temperature Proton Exchange Membrane), Supercritical Fluid Extraction (of natural products for either pharmaceuticals and nutraceuticals purpose), Life Cycle Assessment studies of the process plant, Environmental pollution control
Manjuri Kumar		Synthesis and characterization of novel Chromium compounds using different chelating ligands.
		Advanced thermoset resin system. Development of composites based on polybenzoxazine and studying their thermal and mechanical properties. Removal of toxic substances using modified polymer.
Jegatha Nambi Krishnan		Bio-MEMS – Microfluidic Separation and Detection technologies, Advanced materials for Sensor and Electrochemical applications, Polymer blend membranes for Energy applications
Asima Shaukat		Rheology of lubricating greases, rheological dynamics of

Department	Name of faculty	Research Area
		polymer-layered silicate clay nanocomposites, yielding behavior of jammed systems
	Vivek Rangajaran	Bioprocess, Biosurfactants, Bioactives for cosmetic applications
	Pradeep Kumar Sow	Hydrogen production using thermochemical cycles, Fuel cell, Electro-electrodialysis, Electrochemical engineering, Materials with controlled wettability: fabrication and applications, Diagnostic system design.
	Richa Singhal	Nanomaterials, Electrochemical energy storage (EES) devices, CO ₂ Mitigation
	Anirban Roy	Thermodynamics, Water-Energy Nexus, Biomedical Devices
	Sharad M Sontakke	UV/ Solar assisted photocatalysis, Catalysis, Value added materials from industrial waste, Solar cells, Polymeric and ceramic membranes, conducting metal oxide synthesis and applications
	Amol Deshpande	Unmixed combustion for heat transfer applications, Transport Phenomena, Computational Fluid Dynamics (CFD) and Reaction engineering (Modeling)
	Sundari Ramji	Transport Phenomena, Multiphase flows, Microfluidics, Computational Fluid Dynamics, Systems Biology
	Paramita Halder	Molecular simulation techniques, ranging from quantum chemistry to Molecular Dynamics (MD), Kinetic Monte Carlo (KMC), and Nudged Elastic Band Method (NEB). Ionic materials, composite materials, semiconductors and metals.
Chemistry	A.P. Koley	Bioinorganic Chemistry,, Coordination Chemistry
	Sunil Bhand	Biosensor, Environmental Analytical Chemistry, Biochips, Microfluidics for chemical analysis and biological analysis
	N.N. Ghosh	Nanochemistry and nanomaterials Polymer, Materials Science
	R.N. Behera	Molecular simulation of soft matter, electronic structure calculations
	Anjan Chattopadhyay	Computational Photochemistry (Radiative decay, fast non-radiative decay channels- conical intersections)
	Ranjan Dey	Thermodynamics and Transport properties of Liquid Mixtures, Excess Properties, New and Renewable Energy
	P. Bhavana	Synthetic porphyrin chemistry, Photochemistry and Bioinorganic chemistry
	Rabi Narayan .Panda	Solid State Chemistry, Nano-technology, Nanochemistry and nanomaterials
	Halan Prakash	Photochemistry - Antimicrobial Photosensitiser, Environmental Chemistry- Advanced Oxidation Process, Bioinorganic -Bioconjugates Peptide and Protein Chemistry
	Mainak Banerjee	Heterogeneous Catalysis, Green Chemistry, Development of Chemosensors, Supramolecular Chemistry
	Amrita Chatterjee	Synthetic Organic Chemistry, Molecular sensors, Green Chemistry
	Tincy Thomas	Fluorescence and Photophysical Chemistry
	Rashmi Chauhan	Polymer Chemistry
	K.P. Jayadevan	Oxide Nanomaterials (Nanoparticles, Thin films), First principles computational study of defects in solids and solvation of molecules
	Subhadeep Banerjee	Synthetic Porphyrin Chemistry, Chemistry of Organic Chromophores
Subhasish Roy	Peptide-based Supramolecular Systems for Biosensor and Bioelectronics.	
	Kiran Vankayala	Nanomaterials for energy, Solar fuels, Electrochemistry

Department	Name of faculty	Research Area
		Ultrathin layered materials, Molecular spin/electronics
Economics and Finance	Aswini Kumar Mishra	Applied Econometrics, Industrial Economics, Behavioural Economics & Empirical Development Economics
	Arfat Ahmad Sofi	Economic Growth & Development, Public Economics, Applied Spatial Econometrics
	Ch.V.V.S.N.V. Prasad	Operations Management, Strategic Management, Marketing, and Information Technology
	Debasis Patnaik	Social sciences, Financial Economics, Environment Economics
	Mridula Goel	International Economic order, Business environment, Entrepreneurship, Gender Issues
	Rajorshi Sen Gupta	Intellectual Property Management, Principal-Agent contracts, Transportation Economics, Simulation
	Suman Gupta	Behavioral Finance, Behavioral Accounting, non-linear time series Analysis
	Ritika Jaiswal	Financial Economics, Asset Pricing, Market Microstructure, Financial Derivatives
	Richa Shukla	Economics of Innovation, Industry Structure, Competitive Strategy
Humanities and Social Sciences	Reena Cheruvalath	Ethics, Cognitive Science, Education Literary Studies
	Bidisha Banerjee	Health and Social Psychology, Qualitative Psychology, Mental Health, Public Mental Health, Family Studies
	Basavadatta Mitra	Cross Cultural Communication, Renaissance Drama
	Geetha B	Film Studies, Digital Humanities (with special focus on folk arts)
	Geetha K A	Dalit Literatures, Post -Colonial Literatures, Literary and Cultural Studies
	R.P. Pradhan	International Relations; Political Economy; Maritime Studies & Blue Economy; International Trade & Development; Development Economics; Diaspora & Migration Studies.
	Shalini Upadhyay	Communication, ELT., Indian Writing in English, Spiritual Intelligence
	Hareesh. A.G	Philosophy of Science
	Rayson K. Alex	Ecocriticism, Media and Ethnography, Ecodocumentary, Aesthetics, Cinema
	Nilak Datta	Postmodernism, American Fiction, Tourism Theory, Literary and Cultural Studies
	Rajiv Kumar Chaturvedi	Climate Change, Forests ecology and Public Policy
	Sayantani Sarkar	Public Policy
	Mohan Kumar Bera	Disaster Management, Environmental Adaptation, Tribal Development and Sociology
	Solano Da Silva	Development Studies, Political Science
Amitendu Bhattacharya	Literary Studies	
Lakshmi Subramanian	Social and Maritime History, Cultural Studies	
Electrical and Electronics Engineering	Raghurama G.	Communication Systems, Telecommunication Networks
	M.K. Deshmukh	Hybrid Energy Systems, SPV, Wind Power, Modeling & Simulation, Smart Grids, Policy, Planning, Education
	K.R. Anupama	Network Embedded Systems - WSN, Vehicular Networks, Biomimetics

Department	Name of faculty	Research Area
	Dipankar Pal	Analog & Digital ASIC Design, Low power, low collage circuits & Systems, Function Circuits and Data Converter Design.
	Anita B. Agrawal	System study and simulation, System on chip, Embedded System prototype design using FPGA/PSoC,, Sensors and data acquisition system
	A. Amalin Prince	FPGA based signal & image processing systems, Reconfigurable Hardware Accelerators, MEMS and applications
	Ramesha C.K	Device Modelling and Simulation, Microelectronics, VLSI Design
	Abhijit Pethe	Nanoelectronics, nanotechnology, neuromorphic computing, bio-inspired computing and devices
	Narayan S Manjarekar	Systems and Control, Non-linear Control Systems, Passivity based control, Dynamic Control of Electrical Power Systems, Robotics,
	Nitin Sharma	Wireless Communication Systems, IoT(D2D Communication), Cloud RAN, GNSS Signal Processing, Software Defined Networking
	Gautam G. Bacher	Micro & Nano Biosensors, Impedimetric sensors, Electrochemical Impedance Spectroscopy
	Pravin Mane	VLSI Design, Reconfigurable architectures using emerging nanodevices, approximate arithmetic circuits
	Sarang C Dhongdi	Underwater Acoustic Sensor Network, Digital Signal Processing
	Sudeep Baudha	Radio Frequency and Microwave Engineering, Antenna Design
	Hrishikesh S. Sonalikar	Radome Design, Computational Electromagnetics, Antenna Design, Frequency Selective Radar Absorbers (FSR)
	Ashish Chittora	Microwave Engineering, Antenna design, High Power Microwave
	Ravi Kadimatti	Wireless communications Radar, Digital signal processing coding theory, Orbital angular momentum communications, Beam forming/MMO, Nondiffracting beams
	Naveen Gupta	Next generation cellular networks, Device to device communication, cooperative cognitive radios, mmwave
	Chembiyan Thambidurai	Wireless system design, design of low noise PLLs and Analog Circuit Design
Vivek Chandran K P	System control and dynamics, Estimation	
Kizheppatt vipin	Embedded systems, reconfigurable computing & Adaptive systems	
	Rakesh K Warier	Control systems Robotics, Unmanned Aerial Systems, Underwater Vehicles Nonlinear Estimation Differential Geometric Methods in Mechanics and Control Formation Flying, Multi-agent Systems Artificial Neural Networks, Reinforcement Learning
	Soumyabrata Barik	Electrical Power Systems, Electrical Distribution Networks, Renewable DG Integration, Soft Computing Techniques, Microgrid
	Varun Sharma	Microelectronics, Nanoelectronics, Atomistic Device Modeling, Materials-Device Interfacing, Device-Circuit Interaction.
	Pramila Jakhar	Electrochemical Biosensors, Conducting Polymers, Organic and inorganic hybrid devices, Electropolymerization, Hydrothermal growth technique, Metal deposition techniques.
	Noel Prashant Ratchagar	Biosensors and MEMS: Silicon nanoporous membranes for dialysis

Department	Name of faculty	Research Area
		Electrolyte insulator semiconductor capacitor (EISCAP) to estimate Triglyceride concentration. Microfabrication technology
	Anurag Nishad	Non-stationary signal processing (physiological signals, speech signal), Time-Frequency Analysis.
Mathematics	Anushaya Mohapatra	Dynamical Systems, Mathematical Biology.
	Mayank Goel	Portfolio Optimization Problems. Financial Mathematics
	Shilpa Gondhali	Algebraic Topology. Homotopy Theory
	Anil Kumar	Control theory, Numerical methods for ordinary and partial Differential Equation
	Prasanna Kumar	Geometric Function Theory, Approximation Theory, Mathematical Geosciences
	Himadri Mukherjee	Commutative algebra, Algebraic geometry, Graph theory, Combinatorics
	P. Dhanumjaya	Finite Element Methods, Numerical Analysis, Computational Partial Differential Equations, Mathematical Biology
	Manoj Kumar P.	Hyperbolic Systems of Partial Differential Equations , Nonlinear Gasdynamics, Group Theoretic Methods for PDEs
	Prabal Paul	Cryptography, Number theory, Coding theory
	Pradeep Boggarappu	Harmonic Analysis on Euclidean space and Heisenberg Group.
	J K Sahoo	Numerical Linear Algebra, Tensor Analysis, Machine learning
	Amit Setia	Wavelet based numerical methods to solve dynamical systems
	Tarkeshwar Singh	Graph Theory
	Anupama Sharma	Mathematical Biology, Complex Systems, Infectious disease modelling, antibiotic resistance
Saranya G Nair	Diophantine equations and approximations, analytic number theory , algebraic properties of classical polynomials	
	Mizanur Rahaman	Quantum information theory, Operator algebras, Functional analysis
	Vijay Madhukar Patankar	Number Theory; especially Algebraic Number Theory, Galois Representations, Abelian Varieties, Modular forms Arithmetic Complexity Theory Cryptography; especially Cryptography having number theoretic flavour, Elliptic Curve Cryptography Interested in the following - but yet to do much about these: Origami, Origami and Mathematics Magic, Magic and Mathematics
Physics	Kinjal Banerjee	Classical and quantum gravity
	Gaurav Dar	Nonlinear Dynamics
	Prasanta Kumar Das	High energy Physics, Astrophysics and Cosmology
	P N Deepak	Nuclear Physics
	Tarun Kumar Jha	Nuclear Astrophysics
	Teny Theresa John	Condensed matter
	Toby Joseph	Condensed matter
	Arun V Kulkarni	Nuclear and Theoretical Physics, Gravitational waves (theory), Modelling of Scanning probe microscopes.
	E S Kannan	Condensed matter
	P Nandakumar	Nonlinear optics
	Ram Shanker Patel	Condensed Matter

Department	Name of faculty	Research Area
	Raghunath Ratabole	High energy Physics
	V Sunil Kumar	High energy Physics
	Chandradew Sharma	High energy Physics
	Radhika Vathsan	Mathematical physics, Quantum information theory
	Swastibrata Bhattacharya	Condensed matter
	Rudranil Basu	High energy physics
	Prasad Naik (Vis. Prof.)	Optics, Lasers, Plasma
	Indrani Chakraborty	Experimental soft matter, physics, programmable self assembly, nanomaterials
Computer Science & Information Systems	Ashwin Srinivasan	Data Science, Machine Learning: Inductive Logic Programming, Machine Learning and ILP to real- world problems: computational Biology, Neuro-Symbolic learning, Optimal search theory.
	Neena Goveas	Network Science, Computer Networks, Low dimensional systems
	Baskar A	Formal Languages and Automata Theory, Logic in Computer Science, Security Protocols and Verification
	Bharat M. Deshpande	Optimization, Data Mining
	Biju K. Raveendran	Real-Time/Embedded systems, Operating systems for multicore architectures, Energy Cache architectures
	Ramprasad Joshi	Formal theory of heuristic computation, geometry of local search algorithms, optimization, natural language processing, artificial intelligence and robotics
	Sanjay K. Sahay	Information/Network Security, Cryptography, Data Science, and Gravitational waves
	Swati Agarwal	Security Informatics, Social Computing, Natural Language Processing
	Rizwan Parveen	Software Engineering, Cyber Physical System, IoT
	Sravan Danda	Computer Vision, Deep Learning and Data Science
	Tirtharaj Dash	Data Science, Deep Learning, Deep Relational Learning, Optimisation and Machine Learning
	Hemant Rathore	Data Science, Malware Analysis, Network Security,
	Anup Basil Mathew	Logic and Automata Theory, Verification and Synthesis of Distributed Systems
	Basabdatta Bhattacharya	Spiking Neural Networks; Mean Field (Lumped parameter) Neural Networks; Bio-inspired Convolutional Neural Networks; Computational Neurology; Neuromorphic computing; Neural (Energy efficient) Information Processing.
	Raj Kumar Jaiswal	Vehicular Network, Internet Security, Blockchain.
	Shubhangi K. Gawali	Real time systems, energy autonomous real time and embedded systems
	Soumyadip Bandyopadhyay	Formal Methods, Software Engineering, Cyber Physical systems, Program analysis
	Sujith Thomas	Data Science, Human visual category learning, Computational modelling, Cognitive Science
	Vinayak Naik	Mobile Computing, Wireless Networks, IoT, Software Defined Networking, and Blockchain
	Kanchan Manna	Embedded Systems, Multicore-based Systems Design and Test, System Security
Pritam Bhattacharya	Bionanotechnology, Nano-fertilizers, Plant-microbe interactions, Microbial and Mycorrhizal Biotechnology, AMF Root Organ Culture, Microbial decomposition, Bioremediation, Biomineralization, Soil biological health indicators, Microbial molecular biology.	
Snehanshu Saha	Theory of Shallow Neural Nets Chaotic Neural Networks Swarms and Super-optimizers Differential Equation based Modeling in Neural Networks Kernels in Neural Nets	

Department	Name of faculty	Research Area
		Classification in Large Astronomy Data Sets
	Tanmoy Tulsidas Verlekar	Computer Vision, Machine Learning, Biometrics, Gait Analysis
	Abhishek Kr. Singh	Automata, Logic, Interactive Theorem Proving, Formal Verification, and Concurrency Theory
Mechanical Engineering	D.M. Kulkarni	Fracture, Biotribology, 3D Printing
	P.M. Singru	Dynamics, Vibration
	Dr. Shibu Clement	Experimental Aerodynamics
	Sachin D. Waigaokar	Rotational Moulding, FRP Composites
	Ranjit S. Patil	Fluid-Thermal
	G. Karthikeyan	Micromachining
	Vikas V. Chaudhari	Fracture Mechanics
	Varinder Singh	Manufacturing System
	Kiran D. Mali	Mechanics, Vibrations
	Sandeep Jose	Solid Mechanics
	Pritanshu Ranjan	Computational Fluid Dynamics
	Vadiraj Hemadri	Gas Dynamics, Microfluidics
	Siddhartha Tripathi	Fluid mechanics, Bio-microfluidics
	Devendra G. Patil	Vibration, Smart materials
	Abhilash Tilak	SCNCL, channel
	Ravindra Saluja	CAD/CAM
	Amal Siju	Manufacturing Engineering
Vaibhav Joshi	Fluid Structure interaction	
	Nilesh D Pawar	Thermal
	Iniyar Thiruselvam V	Mechanics of solids
	Ganesh M Bapat	Biomechanics
	Biswajit Das	Surface Engineering
	Ashwin K P	Robotics

Hyderabad Campus

Department	Name of faculty	Research Area
Biological Sciences	Suman Kapur	Genetic markers, Medicinal phyto-chemicals, Biomarkers and Medical devices
	Vidya Rajesh	Malaria vaccine candidates, Analysis of candidate genes for autism, Bioremediation
	Ramakrishna Vadrevu	Structural Biology; Protein Folding; Protein Design/Engineering: Self-assembly/amyloids and Nano- materials; Protein Modelling and small molecule inhibitors for diseases (Alzheimer's etc)
	Kumar Pranav Narayan	Liposomal Gene delivery system for targeted therapeutics and diagnostics of cancer, Use of phyto-compound for the formulation of anti-cancer drugs, bio fertilizer and bio pesticide. Biodiversity of agriculturally important microorganisms
	Sankar Ganesh P	Environment and energy, Anaerobic digestion, Nano(eco)toxicology, Composting, Vermicomposting, Termigradation, Solid waste management, Technology for Pedagogy.
	K. Naga Mohan	Human Molecular Genetics, Epigenetic mechanisms of development, Genetics of psychiatric disorders and Genetic diagnostics
	Jayati Ray Dutta	Microbial Enzymology and its applications in biofuel production, polymer degradation for bio implantation and bio sensing; Nano biotechnology.
	Sridev Mohapatra	Plant-microbial interaction, plant signalling, stress tolerance and induced stress resistance in plants
	Debashree Bandopadhyay	Structure function relationship in macromolecular assemblies including DNA, proteins and ligands both under normal and diseased condition
	Vivek Sharma	Role of lncRNAs in regulation of gene expression in cancer and

Department	Name of faculty	Research Area
		neuroinflammation.
	Gireesha T Mohannath	Epigenetics of Ribosomal RNA (rRNA) gene regulation and genomic instability, antiviral defense.
	Ruchi Jain Dey	Mucosal Associated Invariant T cells (MAITs), dysbiosis in various medical conditions, Development of point of care diagnostic tool to diagnose dysbiosis in clinical conditions such as pre-term birth, infertility, Genito-urinary TB, HIV and gut tuberculosis and Crohn's disease.
	Piyush Khandelia	RNA epitranscriptomics, post-transcriptional regulation of skeletal muscle development and myopathies
	Trinath Jamma	Microbiota derived metabolites influencing immune cell differentiation and function
	Pragya Komal	Ligand gated ion-channels crosstalk and dysfunction in neurological disorders like Schizophrenia and Huntington's disease
	Shuvadeep Maity	ER stress, motor neuron disease (ALS), Organelle cross talk, Localized translation and Post-translational control during ER stress, aging
	Kirtimaan Syal	Host-Pathogen interaction, RNA biology, Second messengers and Cell-Signalling
	Nishith Gupta	1) Pathogenesis, Persistence, and Adaptation of Intracellular Parasites in Mammalian Host Cells (2) Oncogenic Signaling and Metabolism in Intracellular Parasites and Molecular Convergence with Cancer Cells (3) Opto-Mechano-Biology of Neurotropic Pathogens
Chemical Engineering	I. Sreedhar	Reaction Engineering, Process Development, Heterogeneous Catalysis, Green Processes, Process Intensification, Fluid Rheology, Carbon Capture and Utilization, Effluent Treatment Energy Integration.
	Srikanta Dinda	Reaction Engineering & Catalysis, Development of endothermic fuel by hydrocarbon cracking, Development of resin for paint and coating application, Synthesis of bio based adhesives and plasticizer materials. Material development for CO2 capture and its utilization.
	D. Purnima	Natural Fibber Reinforced Polymer Composites, Hybrid Polymer Composites, Polymer Blends, Polymer Rheology, Polymer Membranes.
	Balaji Krishnamurthy	Electrochemical Engineering, Batteries, fuel cells, Polymers, Water treatment, bio fuel cells
	Ramesh Babu Adusumalli	Mechanical Characterisation of Polymers, Fibres and Composites, Natural cellulose fibres and Manmade cellulose fibres, Micro and Nano mechanics of Fibres, Wood and Wood based Composite Materials, Fibre reinforced Polymers (FRP) and Ceramic Matrix Composites Vegetable oils and their Chemical analysis, Solid Waste Management (Material Recycling and Incineration)
	Karthik Chetan. V	Development of Biomaterial based formulations for 3-D printing and electrospinning techniques. The work involves product development and process optimization for adhesive/binder, food/gels, 3-D printing, microencapsulation and tissue engineering applications Real-time investigation of processes such as, polymerization, protein denaturation, liquid-liquid phase separation, glass formation, annealing, physical aging and corresponding secondary relaxation processes by using dielectrics, calorimetry, ultrasonic and thermal conductivity techniques. Materials characterization by using dielectrics, specific heat spectroscopy, dynamic mechanical spectroscopy, rheological spectroscopy, ultrasonic, thermal conductivity and electron microscopy techniques in characterizing a range of materials or products such as, polymers, biopolymers, gels, emulsions and colloids, coatings and adhesives, advanced composites etc..
	Vikranth Kumar Surasani	Pore Network Modelling in Process Engineering, Reactive Transport Modelling of Biogeochemical Interactions, Numerical Simulation of Souring and Desouring phenomena in petroleum reservoirs, Numerical Simulation of Chemical-Looping-Combustion, Population Balance Modelling of Continuous Wet Granulation of API, Processing and

Department	Name of faculty	Research Area
		Refinement of Municipal-Solid-Waste as Alternative Fuel.
	Lakshmi Sirisha	Recovery and purification of industrially important enzymes like Interstate from yeast microbes. Process development and optimization using simulations in pharmaceutical production. Process integration, with novel technologies like Reactive Distillation.
	Angan Sengupta	Continuum modelling of flames to study its dynamic properties under various environmental conditions Continuum modelling of confined and unconfined vapour cloud explosions to study its dynamic properties under various industrial and transport conditions Optimal safe layout of fuel tank farms during fire spread Determining adsorption and desorption properties and hysteresis of fluids confined inside chemically modified nano-pores using molecular simulation techniques Prediction of thermodynamic phase properties and dynamic properties of nano-confined fluids, from the view point of environment and energy aspects; by using the recently developed molecular simulation techniques
	Nandini Bhandaru	Nanotechnology, Soft Lithography, Polymer Thin Film Instability, Polymer Blends, Atomic Force Microscopy, Microfluidics. Development of superomniphobic surfaces for self-cleaning and antimicrobial applications Studying self-assembly and spatial organization of biomolecules
	Satyapaul Singh Amarthaluri	Heterogeneous Catalysis; Reforming; CO Abatement; Photo catalysis; Reaction Kinetics; Network Modelling; Adsorption
	Pankaj Kumar	Biofuels, Heterogeneous catalysis, Kinetic modelling, Reaction mechanism, Pyrolysis of biomass
	Arnab Dutta	Process Simulation, Process Integration, Optimization, Machine Learning, Techno economic Assessment, Sustainable Energy Systems.
	Afkham Mir	Energy storage devices, 2D materials, graphene, energy harvesting, electrochemical engineering, super capacitors.
	Debirupa Mitra	surface modification, Antimicrobial coatings, Materials for biomedical and environmental applications
	Ilyman Abrar	Emulsions and micro emulsions, Sustainable alternative fuels Performance evaluation of IC Engine Interfacial engineering
	Jaideep Chatterjee	Water & waste-water Purification, Air Purification, Oil-water Interfaces, Capillarity, Porous media characterization, Surfactants, Foams & Emulsion
Chemistry	G.Sundar	Theoretical Chemistry, Thermodynamics
	N.Rajesh	Environmental analytical chemistry
	Subit Kumar Saha	Physical Chemistry, Spectroscopy, Study of Soft Matter Systems
	K. Sumithra	Theoretical/Computational Chemistry
	K V G Chandra Sekhar	Medicinal Chemistry
	Krishnan Rangan	Inorganic Chemistry, supramolecular chemistry, Molecular –organic Framework
	Jayanty Subbalakshmi	Multi-functional molecular materials
	Manab Chakravarty	Functional organic molecules as solid state emitters: Sensing
	Anupam Bhattacharya	Synthetic Organic Chemistry
	Balaji Gopalan	Materials Chemistry
	Ramakrishnan Ganesan	Materials Chemistry
	Amit Nag	Spectroscopy, plasmonics
	Sounak Roy	Solid State Chemistry, Material Chemistry, Catalysis
	Durba Roy	Physical Chemistry, Computation
	Tanmay Chatterjee	Development of New Synthetic Methodologies, Synthesis of bioactive molecules
Chanchal Chakraborty (DST Inspire Faculty)	Electrochromic Materials & Devices	
Himanshu Aggarwal	Metal organic frameworks , gas adsorption, host-guest chemistry, inorganic chemistry	

Department	Name of faculty	Research Area
	D Ramaiah	Chemistry-Materials and Chemistry-Biology Interface (Functional materials for light harvesting, molecular probes and sensitizers for photodynamic therapeutically applications)
Civil Engineering	P N Rao	Structural Engineering: Concrete Technology, Energy Efficient Buildings, Non Linear Finite Element Analysis of Structures, Soil Structure Interaction, Wind Load Analysis of Structures
	K S Raju	Water Resources Engineering: Impact of Climate, Change on Water Resources, Water Resources Systems, Multi Objective Optimization and Decision Making, Soft Computing and Evolutionary Algorithms
	V Vinayaka Ram	Transportation Engineering: Flexible Pavement Material Characterization, Rigid Pavement Material Characterization, Highway and Runway Pavement Design and Evaluation, Building Materials, Other Allied Areas
	A Vasani	Water Resources Engineering: Optimization using heuristic methods like Differential Evolution, Genetic Algorithms, Fire Fly Algorithm, Ant Colony Optimization, Particle Swarm Optimization, Simulated Annealing etc., Water Resources Systems Planning and Management, Water Distribution Networks Design Optimization, Multi Criterion Decision Making Methods
	Jagadeesh Anmala	Water Resources Engineering: Fluid Mechanics, Environmental Hydraulics and Water Resources, Surface and Subsurface Hydrology, Computational Fluid Dynamics, Soft computing in Civil Engineering, Stream Hydrology
	Sridhar Raju	Transportation Engineering: Utilization of Reclaimed Asphalt Pavement in Bituminous Mixtures, Characterization of Polymer Modified Bitumen with warm mix additives, Utilization of waste plastic and crumb rubber for city roads, Half Warm Mix Asphalt Mixtures using Polymer Modified Bitumen Emulsion and Pavement Asset management
	K Rajitha	Remote Sensing & GIS:
	Murari R R Varma	Water Resources Engineering: Watershed hydrology and management, Experimental and field hydrology, Hydrochemistry of watersheds, GIS Applications in hydrology Environmental hydrology, Sustainable technologies related to civil engineering
	Chandu Parimi	Structural Engineering: extended Finite Element Method (XFEM), Computational Mechanics, Computational Geometry, Topology Optimization, Nanoscience and Nanotechnology, Structural Dynamics, Fracture Mechanics, Structural analysis and design
	Mohan SC	Structural Engineering: Earthquake and vibration control, Structural Health Monitoring, Fatigue and fracture mechanics, Smart structures, Computational cost reduction
	Anasua Guharay	Geotechnical Engineering: Reliability Application in Retaining Structures, Sensitivity Analysis, Utilisation of Construction and Demolition Waste for Ground Improvement, Ground Improvement with treated natural fibers, Slope stability with natural fibers and grass roots, Geopolymerisation of expansive soil with alkali activated binders, Ground improvement with biochar and water hyacinth fibers, Soil Dynamics
	Arkamitra Kar	Structural Engineering: Development and characterization and of concrete with alkali-activated aluminosilicates as sustainable or 'green' building materials, Correlation between microstructural properties of cementitious paste with mechanical properties of concrete at specimen scale, Study of the polymerization or hydration chemistry of cementitious systems depending on the type of binder, Development of models to predict strength, stiffness, and deformation characteristics of concrete with alkali-activated binder, Life cycle assessment of concrete with alkali-activated binder, Bacterial inclusions in concrete, Treatment methods for geotextiles, Durability of concrete with Alkali-Activated Binders
	Bandhan Bandhu	Travel behaviour and choice modelling; Non-motorized Transport; Sustainable Transportation; Transportation Safety; Road Traffic Crash Data Analysis and Evaluation; Traffic Engineering; Geometric design consistency
	Bahurudeen A	Concrete structures: Durability of concrete structures (Assessment; Laboratory test methods; Performance specifications), Cement chemistry and hydration process, Heat of hydration, Sophisticated Characterization Techniques for the evaluation of construction materials, Non-destructive Techniques for assessment of structures, Evaluation of admixture performance, Alkali activated binder

Department	Name of faculty	Research Area
		system, Development of new alternative materials
	Raghu Piska	computational Mechanics, Phase field modelling of damage, Application of generalized continuum theories, Linear and nonlinear finite element analysis, Laminated composites and Functionally graded materials
	Shivang Shekhar	structural and Earthquake Engineering with emphasis on Probabilistic Seismic Risk and Vulnerability Assessment of Civil Engineering Structures, Life-cycle Analysis of Structures under Natural Hazards, Application of advanced Machine Learning Algorithms for Multi-dimensional Fragility Models, Uncertainty Quantification in Structural Reliability Problems, Nonlinear Modeling and Analysis of Structures including Bridges and Buildings.
	Prasanta Kumar Sahu	Freight Demand Modelling and Planning for Logistics Systems, Energy-efficient Platforms for Collaborative Last mile delivery, Physical Internet Application for Omni channel Delivery Planning, Crowd-sourced and Reverse Logistics, Green Mobility, Sustainable Modal Shifts and Transport Emission, Travel Behaviour Analysis and Discrete Choice Modelling, Quality of Life, Transportation and Health, Transit Operations and Management.
Economics and Finance	Niranjan Swain	Corporate Finance
	China Hussain Yaganti	Commodity Derivatives Markets, Macroeconomics, Agricultural Marketing and Supply chain management
	Durgesh Chandra Pathak	Development Economics, Public Policy, Impact Assessment of Development Projects, Microfinance, Poverty & Inequality Analysis, Applied Econometrics (Micro econometrics), Applied Game Theory
	Sudatta Banerjee	Economic Growth, Development Economics, Gender Studies, Educational Economics, Applied Econometrics, Child Health and Education
	Archana Srivastava	International Economics, Labour Issues
	Swati Alok	Human Resource Management / Organizational behaviour : Employee Engagement, Career Management, Conflict Management Gender studies Capacity Building
	Rishi Kumar	Development Economics, Poverty & Inequality, Impact Evaluation, Health Economics, Rural Development and Applied Econometrics
	Thota Nagaraju	Financial Economics, Development Economics
	Dushyant Kumar	Conflict theory , Organization Theory
	Mini Thomas	International Trade in Services, Service Sector, and Global Value Chains, Macroeconomics, Economic Growth and Structural Transformation
	Bheemeshwar Reddy	labour economics, development economics and demography
	Sunny Kumar Singh	Macro-Monetary Policy; Central Banking; Payment Systems; Economics of Corruption
	R. Raghunathan	Strategy, entrepreneurship, (Scholarship of) Teaching and learning
	Nivedita Sinha	Corporate Finance, Energy Finance, Mergers & Acquisitions
	Shreya Biswas	Household finance Corporate governance Public policy Applied econometrics
CSIS	Chittaranjan Hota	Analytics, IoT, Networks, Security
	R.Gururaj	Databases, Information Systems, WSN
	N.L.Bhanu Murthy	Machine Learning, Software Intelligence & Engineering
	Tathagata Ray	Computational Geometry, Graphics
	G Geethakumari	Information security, Cloud Computing, Cloud Security
	Aruna Malapati	Big Data, Data Mining, Information Retrieval, Bio Informatics
	Barsha Mitra	Security Analysis of Access Control Models
	Suvadip Batabyal	Mobile Opportunistic/Delay Tolerant Networks, Visible Light Communication, Quantum Computing, Security with Scheduling in Real-Time Systems
	Subhrakanta Panda	Program Slicing , Change Impact Analysis Software Testing, Regression Testing, Software Metrics, Aspect Mining, Semantic Analysis, Graph Theory Applications, Security Testing, Cloud Computing
Sudeepta Mishra	Radio resource allocation, Interference management. Heterogeneous	

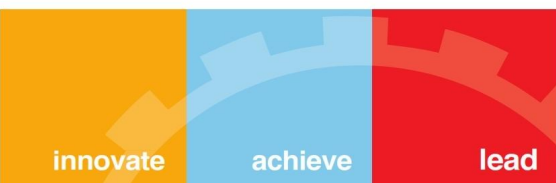
Department	Name of faculty	Research Area
		cellular networks. Femto cells, mm Wave communication in 5G cellular networks.
	Lov Kumar	Software Metrics, Software Quality, Quality of service, Machine Learning, Software maintainability prediction, Software fault prediction, Software change proneness prediction
	Jabez J Christopher	Data Mining, Machine Learning and Swarm Intelligence Algorithms, benchmarking and evaluation of optimization algorithms.
	Paresh Saxena	Design and implementation of network coding protocols for reliable and robust communications, wireless and satellite networks, drone communications, machine learning and video streaming protocols.
	Rajib Ranjan Maiti	opportunistic networks and its security and privacy, Human mobility pattern and its application, Internet of things: application and challenges, Cyber security in internet of things and cyber physical systems, Applied machine learning, Security and privacy in wireless LAN (Wi-Fi, BLE, Zigbee)
	Surender Singh Samant	Data Mining, Information Retrieval
	Gokul Kannan Sadasivam	Networks Security
	Manjanna	Algorithms, Computational Geometry
	Siva Kumar D V N	Cloud data security
	Dipanjan Chakraborty	
	Manik Gupta	Data collection and analysis for environmental monitoring (air and noise pollution), smart buildings (energy management) and mental health applications Internet of Things (IoT) analytics and distributed edge processing Machine learning techniques for sense-making from multimodal sensor data streams (time series, audio, text)
	Ayan Das	Natural Language Processing, Machine Learning, Information Retrieval.
	Apurba Das	dynamic and streaming graphs, dense subgraph exploration, parallel algorithms, large scale graph analytics, cybersecurity, graph based ML, graph pattern mining and query processing.
	Sandeep Vidyapu	Human-Computer Interaction (computational user attention/behaviour modeling, eye-tracking, visual attention) Applied Machine Learning (statistical modeling, predictive modeling, multi-modal integration, dimensionality reduction)
	Mrityunjay Singh	Broadly interested in Theoretical Computer Science and Algorithms which is flavoured with Algebra, Number Theory, and Combinatorics. Specially works in Combinatory and Graphs on Words
	Venkatakrishnan Ramaswamy	venkat@hyderabad.bits-pilani.ac.in
	Nikumani Choudhury	<input type="checkbox"/> Low-Rate Wireless Personal Area Networks <input type="checkbox"/> Wireless Sensor Networks <input type="checkbox"/> Internet of Things <input type="checkbox"/> Intelligent Medium Access Control Sub-Layer <input type="checkbox"/> AI-based Smart Agriculture
	Raghunath Reddy M	<input type="checkbox"/> Approximation Algorithms <input type="checkbox"/> Combinatorial Optimization <input type="checkbox"/> Computational Geometry
	HUMANITIES & SOCIAL SCIENCES	M.G. Prasuna
Sunny Jose G		Public Policy; Development Studies; Gender Studies
Shilpaa Anand		Disability Studies; Medical Humanities; History of Ideas
Aruna Lolla		Disability Studies; Medical Humanities; History of Ideas
Maya Vinai		Indian English Fiction; Maritime (Indian Ocean) Narratives; Postcolonial Literature
Santosh Kumar Mahapatra		Critical Pedagogy; Language Assessment; English for Specific Purposes
Biswanath Dash		Science Technology Studies; Disaster Management
Suchistmita Satpathy		Political Economy of Urban Space; Corporate Social Responsibility; Urban Policy
Lavanya Suresh		Political Ecology; Public Administration; Decentralisation
Pranesh Bhargava		Linguistics; Speech and Hearing; Cognitive Sciences
A.K. Jayesh		Indian Madhyamika Philosophy; Philosophy of Literature

Department	Name of faculty	Research Area
	Anhiti Patnaik	Cultural Studies; Crime Fiction; Victorian Literature
	Aswathy Raveendran	Science, Technology, Society Studies; Gender and Science; Science Education
	Dr. Spandan Bhattacharya	Indian cinema, cinema and print culture, film as popular culture, early cinema, new media labour
Mathematics	Dipak Kumar Satpathi	Mathematical Modelling of Biological Systems, Fluid Mechanics, Financial Mathematics
	Addepalli Ramu	Computational Fluid Dynamics
	Bivudutta Mishra	Cosmology and Relativity, Dark Energy, Modified Theories of Gravity
	Kota Venkata Ratnam	Mathematical Modelling
	Praveen Kumar P T V	Multivariate Data Analysis
	Pradyumn Kumar Sahoo	Relativity, Cosmology, Dark Energy, Dark Matter, Wormhole Geometry and Alternative Theories of Gravity
	A Michael Alphonse	Graph Theory
	Sai Lakshmi Radhika T	Fluid Dynamics
	Manish Kumar	Pseudo-Differential Operators, Wavelet Analysis, Image Processing
	Jaganmohan Jonnalagadda	Differential Equations
	Sumit Kumar Vishwakarma	Seismic Wave Propagation
	Naraparaju Kishore Kumar	Numerical Solutions to Partial Differential Equations
	Sharan Gopal	Topological Dynamics
	N Anil	Ad joint Methods for Aerodynamic Optimization, High Performance Computing, Mesh Free Methods
	Jhuma Sen Gupta	Numerical Functional Analysis
	V Venkata Hara Gopal	Multivariate Data Analysis, Pattern Recognition, Mathematical Statistics
	Santanu Koley	Integral Equations
	Deepika	Infinite Dimensional Holomorphy
	Debopam Chakraborty	Algebraic Number Theory
	Pratyusha Chattopadhyay	Algebra
	Savyasachi	Cryptography
	Nirman G	Quantum Information Theory
	K Bhargav Kumar	Partial differential equations
	Nijjwal Karak	Geometric Analysis: Analysis on metric measure spaces, Analysis on bad domains.
	Rohit Gupta	Permutation polynomials; Finite Fields
	Farida Parvez B	Queueing Theory Stochastic Modelling
	Sajith P	Graph theory and Combinatorics
. Nabin Kumar Meher	My research area is Number Theory. More specifically I am interested in Transcendental Number Theory, Diophantine equations, Multiple zeta function, Modular forms and Analytic Number Theory	
G Murali Mohan	Numerical Analysis and Partial-differential equations	
Pharmacy	Dr. D Sriram	Drug discovery
	P Yogeeswari	Medicinal Chemistry
	Punna Roa Ravi	Pharmaceutics
	A Sajeli Begum	Pharmaceutical Chemistry (Natural Products)
	V.Vamsi Krishna Venuganti	Pharmaceutical formulation development
	Swati Biswas	Pharmaceutics
	Balaram Ghosh	Medicinal Chemistry
	Arti Dhar	Pharmacology
	Onkar Kulkarni	Pharmacology
	Nirmal J	Ocular drug delivery
	Akash Chaurasiya	Formulation development
Physics	P K Thiruvikraman	Computational Physics, Digital Image Processing

Department	Name of faculty	Research Area
	Souri Banerjee	DNA Electronics
	Kannan Ramaswamy	Nano photonics, Nanoplasmonics, Magneto-Optics and Solar Photovoltaics
	Aravinda Narayanan Raghavan	Self-organized natural composite materials, Microfluidics
	B Harihara Venkataraman	Ferroelectric and Multiferroic materials, Nonlinear optics
	Meenakshi V	Soft Lithography, Micro and Nano-fluidics, Molecular Nano magnetism
	V Satya Narayana Murthy	Magnetic thin films, Spintronics, Non-destructive testing of Materials
	Sashideep Gutti	General Relativity, Mathematical Physics
	K V S Shiv Chaitanya	Quantum Computing and Quantum Information, Mathematical Physics
	Asrarul Haque	Quantum Field Theory, Particle Physics
	Rahul Nigam	Cosmology, Theoretical High Energy Physics
	Sarmishtha Banik	Nuclear Astrophysics, Nuclear & Particle Physics.
	Subhash N Karbelkar	Wave propagation in random media, Astrophysics
	Prasant Samantray	Theoretical High energy Physics
	Swastik Bhattacharya	General Relativity, Black holes
	Aranya Bhuti Bhattacharjee	Quantum optics, Quantum optomechanics, Ultra cold atoms
	Subrahmanya Bhima Sankar D	Quantum optics, Quantum metrology, and Hybrid quantum systems
Mechanical Engineering	MorapakalaSrinivas	Thermal
	NandanavanamJalaiah	Thermal
	Amit Kumar Gupta	Production/Manufacturing
	SrinivasaPrakashRegalla Kurra Suresh	Manufacturing
	JeevanJaidi	Manufacturing
	Y VenkatDaseswaraRao	Design Engineering
	N Suresh Kumar Reddy	Manufacturing
	NitinRameshraoKotkunde	Manufacturing
	SandipShridharrao Deshmukh	Thermal
	PhaneendraKiran C	Manufacturing
	Khalid Anwar	Thermal
	Amrita Priyadarshini	Manufacturing
	Sabareesh Geetha Rajasekharan	Design
	R Parameshwaran	Thermal
	Satish Kumar Dubey	Thermal
	ArshadJaved	Design
	Supradeepan K	Thermal
	Sujith R	Materials Science
	Ram Chandra Murthy Kalluri	Thermal/Fluid Science
	Santanu Prasad Datta	Thermal
	Pavan Kumar Penumakala	Design
	Ravi Vidyarthi	Manufacturing
	Piyush Chandra Verma	Friction and wear, material characterization, MMC Material
	Brajesh Kumar Panigrahi	Non- linear Vibration structural health monitoring and Vibration energy harvesting
	Kundan Kumar	Manufacturing
	Pardha Saradhi	Thermal/Fluid Sciences
Mrinal K. Jagirdar	Thermal/Fluid Sciences	

Department	Name of faculty	Research Area
EEE	M. B. Srinivas	VLSI Arithmetic, Mixed Signal Design, Low power Design, Renewable Energy, Wireless Sensor Networks, Biomedical instrumentation, Telemedicine, Reversible Computing, Signal Processing
	BVVSN Prabhakar Rao	Biomedical Signal & Image Processing, biosensors for detection of cardiac/cancer biomarkers
	Sanket Goel	Microfluidics, MEMS, Lab-on-a-chip, Nanomaterials, Nanofabrication, Medical Diagnostics, Point-of-Care devices, 3D printing, Fuel Cells (Biofuel Cells), Hydrogen, Solar, Smart grids, Decentralized and Distributed Generation.
	Subhendu Kumar Sahoo	VLSI architecture for Digital Signal Processing
	Alivelu Manga Parimi	Power Systems: FACTS, Power system stability, Power Quality, Renewable Energy Sources, Reactive Power Compensation, Micro grids
	Prasant Kumar Pattnaik	Photonics, Optical Communications, Photonic Integrated Circuits, MEMS
	Venkateswaran Rajgopalan	Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET)
	Runa Kumari	Dielectric Resonator Antenna, Log periodic Antenna, Reconfigurable Antenna, Micro strip antenna, Antenna Array.
	Sumit Kumar Chatterjee	Digital VLSI Design, Video Compression, Low power architectures
	Souvik Kundu	Nanoelectronics; Neuromorphic Computing; Neural Networks; Photovoltaics & Photodetectors; Materials for Electronics; Design & Fabrication of Electronic Devices, etc.
	Soumya J	Network-on-Chip (NoC) design, Application-Specific Synthesis of NoC, Reconfigurable NoC design, Fault-Tolerant NoC Design, FPGA implementation of NoC based designs, Artificial Neural Networks for NoC based architectures
	Surya Shankar Dan	1. Physics Based Nano-electronic Device Compact Modeling for State-of-the-Art VLSI IC Designs 2. Device Physics of 'Beyond CMOS' State-of-the-Art Device Technologies and Their Simulation 3. High Performance, Low and Ultra-Low Power VLSI Circuit Designs and Topologies 4. Characterization Methodologies and Algorithms for Device Simulator Design
	Shaikshavali Chitraganti	Modeling, identification, control of Networked control systems, Switching systems, Statistical signal processing
	Syed Ershad Ahmed	VLSI Arithmetic Circuits, Low Power VLSI Design
	Chetan Kumar	Computer Arithmetic, CNFET based Multi-valued logic design
	Harish V Dixit	Microwave Engineering, Active and Passive High Power Microwave/RF Devices
	Mithun Mondal	Condition monitoring and diagnostic of transformers, Insulation diagnostic, Frequency response analysis of transformers, Modelling and analysis of High Voltage apparatus
	Saroj Mondal	VLSI circuits & Systems, Energy processing circuits, Energy harvesting circuits, IoT Interface circuits, Semiconductor Memories, Micro-Scale DC-DC converter, Reference generator;
	Radhika Sudha	Power Electronics application in Renewable energy and Electric drives, Wavelets based Pattern Recognition for Remote sensing (Aerial, Satellite, UAV) Image processing and AI based Industrial machine health condition monitoring
	Manish Narwaria	multimedia signal processing, statistical data analysis, machine learning, and psychophysics. Specific interests in computational modeling and analysis of perceptual factors in multimedia signals (such as video, image, speech and computer generated imagery).
Sayan Kanungo	Simulation and Modelling of Semiconductor Devices and Materials for sensing applications, Electronic properties and carrier transport in 2D Materials, Physics of nano-scale transistors	
Sourav Nandi	Substrate Integrated Waveguide (SIW) Antenna, Micro strip Antenna, MIMO Antenna	
Ponnalagu R N	Development of signal conditioning circuits for sensors, Direct sensor to microcontroller interface circuits, Patient and equipment monitoring systems	

Department	Name of faculty	Research Area
	Rajesh K Tripathy	Cardiovascular Signal Processing, Neural Signal Processing, Cardio-Pulmonary Coupling and Circadian Monitoring, Sparse representation and dictionary learning, Sensor data processing and Pattern recognition, Multimodal affective computing, Medical image processing, and Biomedical Instrumentation
	Karumbaiah C N	Gas sensors, Bio-sensors, MEMS, nano-resonators, mechanical computing, nano-lithography, 1D/2D materials, water-splitting.
	Prarikshit Sahatiya	Flexible and wearable electronic devices, nanomaterials, nanoelectronics, smart personal healthcare monitoring, photodetectors, 2D materials, piezotronics, papertronics, artificial electronic skin
	Prashant Wali	Energy Efficient Medium Access Control Algorithms for LTE-Advanced and 5G, Traffic Scheduling in 4G/5G broadband wireless networks, Call Admission Control in LTE-Advanced and Wireless Backhauling in 5G.
	Ramakant Yadav	Optimization of Tunnel FET Devices for Ultra-Low Power Application. Nano-electronic devices for Ternary Logic Applications.
	Sandeep Kumar	Metamaterial-based antenna design for wireless applications.
	Balasubramanian M	Photonics, Optical Communications, Photonic Integrated Circuits, MEMS
	STP Srinivas,	Power System Analysis, operation and control <input type="checkbox"/> Heuristic & traditional optimization techniques and their application to Power Engineering <input type="checkbox"/> Micro grids <input type="checkbox"/> Smart protection devices <input type="checkbox"/> Self healing in smart grids
	Ankur Bhattacharjee,	<input type="checkbox"/> Hybrid Renewable Energy systems <input type="checkbox"/> Energy Storage <input type="checkbox"/> Micro grid and Smart grid <input type="checkbox"/> Battery Management System (BMS) for Electric Vehicles (EV).
	Amit Ranjan Azad	1. Filter Synthesis Using Optimization Method 2. Band pass Filters with Low Loss, High Selectivity and Wide-Stopband Rejection 3. Dual-Band and Multiband Band pass Filters 4. Compact Resonators and Filters 5. Multimode Resonators and Filters 6. Antenna Array Synthesis Using Optimization Method
	Subhradeep Pal,	I am highly interested about design and modelling of silicon based photonics devices like Mach-Zehnder modulators, microring modulators, optical phase shifters, and optical switches using device level simulation and mathematical formulation for the same. My research includes on the analysis and modelling of such integrated photonic devices both in device level and system level. Performances of such devices in photonic integrated circuits is also studied.
	Gopal Krishna Kamath M	Control and security of cyber-physical systems Intelligent transportation systems Networked control systems Safety-constrained reinforcement learning
	Amit Kumar Panda,	Bionanotechnology, Nano-fertilizers, Plant-microbe interactions, Microbial and Mycorrhizal Biotechnology, AMF Root Organ Culture, Microbial decomposition, Bioremediation, Bio mineralization, Soil biological health indicators, Microbial molecular biology.
	Pratyush Chakrabort	Control Theory Power System, Smart Grid and Renewable Integration Game Theory Cyber-Physical-Social Systems



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Dr. Kumar Mangalam Birla
Chancellor

Smt. Shobhana Bhartia
Pro-Chancellor

Prof. Souvik Bhattacharyya
Vice-Chancellor

DIRECTORS

Prof. Sudhirkumar Barai, Pilani Campus &
Director-in-Charge, International
programmes and Collaborations

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

ACTING REGISTRAR

Prof. Bijay Kumar Rout

DEANS

Prof. Arya Kumar
Alumni Relations

Prof. Ajit Pratap Singh
Academic-undergraduate Studies

Prof. Srinivasa Prakash Regalla
Practice School

Prof. S. Gurunayanan
Work Integrated Learning Programmes

Prof. Sunil Bhand
Sponsored Research and Consultancy

Prof. M B Srinivas
Academic-Graduate Studies & Research

Prof. Souri Banerjee
Faculty Affairs

Chief Finance Officer (On Deputation)

Mr. Arun Khetan



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