

**Self-Study Report – PART II**  
**Department Evaluative Reports – Hyderabad Campus**

**Submitted for Re-accreditation**  
**To**  
**The National Assessment & Accreditation Council**  
**Bangalore**



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

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE,  
PILANI. RAJASTHAN**

**November 2015**



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## HYDERABAD Campus: Evaluative Report of the Department BIOLOGY

1. **Name of the Department:** Biological Sciences
2. **Year of establishment of the Department:** 2008
3. **Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
  - M.Sc. (Hons.) in Biological Sciences (Integrated);
  - M.E in Biotechnology
  - Ph. D
5. **Interdisciplinary programmes and departments involved**  
No interdisciplinary degree programs except Ph. D program where a particular scholar may be working on an interdisciplinary research project and may be jointly supervised.
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**  
Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons:** None
8. **Examination System:** Semester based Choice Based Credit System
9. **Participation of the department in the courses offered by other departments**
  1. [BITS C213](#): Introduction to Environmental Studies
  2. [TA C211](#): Measurement Techniques I
  3. CE C414: Introduction to Environmental Engineering
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Senior Professor		1	One
Professor	Note**	1	One
Associate Professors		2	Two
Asst. Professors		7	Seven
Others		None	None



Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

### 11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Suman Kapur	Ph.D	Senior Professor	Genetic markers, Medicinal phyto-chemicals, Biomarkers and Medical devices	29 years	03 (completed) 15 (ongoing)
S. Swaminathan	Ph.D	Professor	Dengue vaccine development	27 years	05 (ongoing)
Vidya Rajesh	Ph.D	Assoc. Prof	Malaria vaccine candidates, Analysis of candidate genes for autism, Bioremediation	8 years	3 (ongoing)
V. Ramakrishna	Ph.D	Assoc. Prof	Structural Biology; Protein Folding; Protein Engineering: Self-assembly/amyloids and nano-materials; Protein Modeling and Drug discovery	14 Years	2 (ongoing)
Jayati Ray Dutta	Ph.D	Asst. Prof	Microbial, Food and Environmental Biotechnology, Enzymology and Biotechnological applications, Bioenergy	11 Years	2 Ph.Ds
Sankar Ganesh	Ph.D	Asst. Prof	Nano (eco) toxicology, Anaerobic digestion, Composting, Vermicomposting PHA production, Termigration, Solid waste management, Algal biofuel, Technology for Pedagogy	7 Years	2 Ph.Ds



Kumar Pranav Narayan	Ph.D	Asst. Prof	Gene delivery system, Indian medicinal plants for cancer therapeutics, Biodiversity analysis of agriculturally useful microorganisms, inter-strain competition of microorganisms of agricultural importance, Bacteriocin for development of biofertilizers	11 years	1 Ph.Ds
Palash Mandal	Ph.D	Asst. Prof	Signaling mechanisms in alcoholic liver diseases, epigenetic regulation of alcoholic liver fibrosis Plant-microbial interaction, plant signalling, stress tolerance and induced stress resistance in plants	11 years	2 Ph.Ds
K. Naga Mohan	Ph.D	Asst. Prof	Human Molecular Genetics, Epigenetic mechanisms of development, Genetics of psychiatric disorders and Genetic diagnostics	13 Years	2 Ph.Ds
Sridev Mohapatra	Ph.D	Asst. Prof	Plant-microbial interaction, plant signalling, stress tolerance and induced stress resistance in plants	7 Years	2 Ph.Ds
Debashree Bandopadhyay	Ph.D	Asst. Prof	Structure function relationship in macromolecular assemblies including DNA, proteins and ligands, both under normal and diseased condition	10 Years	1 Ph.Ds

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors: NONE**

**13. Percentage of classes taken by temporary faculty – programme-wise information:NONE**

**14. Programme-wise Student Teacher Ratio as per the number of registered students in the current semester:**

Programme	Number students	Student Teacher Ratio
MSc (Hons.) Biological Sciences	100 (average students)	12.5:1
ME Biotechnology	16 (average students)	5.33:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Academic support staff (technical): 2 Administrative staff:1 shared with other departments



## 16. Research thrust areas as recognized by major funding agencies

Medical biotechnology, Agriculture biotechnology, Food and Nutrition, Bioresources, Environment and bioenergy, Structural Biology and Bioinformatics, Technology development, Biophysics, Microbiology, Biochemistry and Molecular biology, Health Sciences and Public/Global Health

## 17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

### Completed projects:

SI No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Development of indigenous POC device microchannel/fluidic device for estimation of lipid profile in human plasma/serum	Suman Kapur	NPMASS-DRDO	46.7lacs	2013-2015
2	Developing Low cost POC device for detection of blood glucose levels	Suman Kapur	ICMR	28.06lacs	2011-2013
3	Development of an indigenous chip for testing antibiotic sensitivity of pathogens found in the human urinary tract	Suman Kapur	NPMASS-DRDO	91.18lacs	2009-2013
4	Identification of genetic loci associated with risk for Type 2 Diabetes Mellitus in Indians from Rajasthan	Suman Kapur	ICMR	35.76lacs	2008-2013
5	Bioconversion of statins	Suman Kapur	Ranbaxy Res. Labs	6.1lacs	2010-2013
6	Medical and Therapeutic Characterization of Induced Somaclonal Variation in a Medicinal Plant Chlorophytum borivillianum	Suman Kapur	UGC	12.0lacs	2007-2010
7	Genetic markers for alcohol induced pancreatic and liver diseases	Suman Kapur	ICMR	31.76	2007-2010
8	Site-specific immobilization of a single DNA molecule	Suman Kapur (Co-PI)	BRNS	19.5	2007-11
9	Arogya Ghar: Health Care Delivery Program	Suman Kapur	Sustainable Innovations, USA	6.0	2011-13
10	Diabetes Mellitus: Reward Pathway and Energy Metabolism	Suman Kapur	IIBT, Hyderabad, AP	6.10	2012-14



11	Polymorphism studies of the malaria vaccine candidate Serine Repeat Antigen (SERA) in Indian Isolates	Vidya Rajesh	DST-SERC	19.6	2012-14
12	Characterization of the prenatal and perinatal risk factors of autism spectral disorder in Indian autistic population	Vidya Rajesh	UGC	6.52	2009-13
13	Molecular Studies on T3 binding domain of the thyroid hormone receptors in Autistic Individuals.	Vidya Rajesh	DST	23.75	2010-13
14	Exploring sequence and structural features of the catalytic b/x loops in TIM barrel proteins:Implications for protein engineering. Implications for protein engineering	Ramakrishna Vadrevu	UGC	8.3	2011-14
15	Enzymatic Production of Tagatose and Fructose	Jayati Ray Dutta	DST	12.0	2011-14
16	Improvement of the existing systems for disposal of municipal solid waste in Tsunami affected coastal villages at Karaikal & Nagapattinam districts, Tamil Nadu, India.	Sankar Ganesh	Swiss-Red Cross	0.70	2012-14
17	Novel Molecular Mechanism Involving Adenosine and Adenosine Receptors in Acceleration of Alcohol Induced Hepatic Fibrosis	Palash Mandal	CSIR	24.07	2012-2015

### Ongoing projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Project cooperation between School of Innovation, design and engineering, Mälardalens Högskola and Birla Institute of Technology and Science- Pilani	Suman Kapur	The Swedish Council for Higher Education	6.5	2015-2016
2	A point of Care (POC) device for detection of antibiotic sensitivity of uropathogens in human urine	Suman Kapur	DBT/SPARSH	45.6	2015-2017
3	AC impedance measurement on two dimensional origami structures of various shapes	Suman Kapur (Co-P)	CSIR	22.3	2013-2016
4	Adenovirus-delivered RNAi as an antiviral strategy against dengue	Swaminathan	DBT	63.0	2014-2017



5	Consequences of cellular crowding on structure stability and folding of a TIM barrel protein	Ramakrishna V	DST	37.4	2012-2015
6	Microbial lipase catalyzed production of ester intermediates for various processing applications in pharmaceutical and food industries	Jayati Ray Dutta	UGC	12.2	2015-2018
7	Novel biomarker responses to validate acute toxicity of engineered nanoparticles and their physico-chemical interactions in earthworm as a model bio indicator of nano(ecotoxicology).	Sankar Ganesh	DBT	25.0	2013-2016
8	Role of adipose in ethanol-induced tissue injury	Palash Mandal	DST	25.0	2013-2016
9	Delineating the impact of plant growth promoting rhizobacteria on plant polyamine metabolism: novel insights into plant-PGPR interactions	Sridev Mohapatra	DST	25.0	2013-2016
10	Development of a cost-effective membrane and DNA chip-based detection of mutations with multiple drug-resistance tuberculosis	K. Naga Mohan	DST-TDB	69.16	2013-2016
11	Transgenic Embryonic stem cell models for studying the role of elevated level of DNMT1, and DNMT3A in neuropsychiatric disorders	K. Naga Mohan	DBT	24.10	2014-2017
12	Characterization of a mouse embryonic stem cell model to study the effects of increased levels of DNA methyltransferase 1 (DNMT1) on abnormal neurogenesis	K. Naga Mohan	DST-SERB	40.38	2014-2017
13	Automated detection of abnormal copy number variants in human diseases	K. Naga Mohan	DBT/BIG-BIRAC	49.90	2015-2016
14	Application of micro-environment property descriptor to explore free energy changes in amyloidogenic protein aggregation	Debashree Bandyopadhyay	UGC-BSR	5.40	2013-2016





## 18. Inter-institutional collaborative projects and associated grants received

### a) National collaboration

- Molecular Studies on T3 binding domain of the thyroid hormone receptors in Autistic Individuals. Collaborating institution: Apollo hospitals, Bangalore, Rs. 23.75 lakhs
- Genetic markers for alcohol induced pancreatic and liver diseases, collaborating institution: All India Institute of Medical Sciences, New Delhi Rs 31.76lakhs
- Clinical assessment of laudhatri for treating anaemia, Collaborating Institution: National Institute of Ayurveda, Jaipur, Rs 10 lakhs
- Bioconversion of statins, Collaborating institution: Ranbaxy Research Labs, New Delhi, India, 6.1lakhs
- Genetic markers for Rheumatoid Arthritis in patients from Rajasthan, Collaborating institution: SP College of Medicine, Bikaner, Rajasthan
- Development of indigenous POC device micro channel/fluidic device for estimation of lipid profile in human plasma/serum, Collaborating institution: Indian Institute of Science, Bangalore, 44.2 lakhs
- LV Prasad Eye Institute, Hyderabad
- Sankar Netralaya, Chennai, Tamil Nadu
- Elite School of Optometry, Chennai, Tamil Nadu

### b) International collaboration:

- i. Mälardalens högskola and Birla Institute of Technology and Science- Pilani, Swedish Council of Higher Education (Dr Suman Kapur)
- ii. Sustainable Innovations Inc, Virginia, USA and BITS Pilani, (Dr Suman Kapur)
- iii. Equate Health, Silicon Valley, California, USA (Dr Suman Kapur)

## 19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Total grants received: Nil

## 20. Research facility / centre with State recognition, National recognition international recognition

None of our centres are recognized. However, Basic equipment such as refrigerators, freezers, deep freezers, pH meters, small centrifuges, laminar flow hoods, orbital shakers, incubators, ovens, autoclaves, heaters, stir plates, weighing balances, compound microscopes, inverted microscopes, computers etc. are present in a number of laboratories, specialized equipment for high quality, cutting-edge research are also present and growing in number.



These facilities include laminar flow hoods for animal cell cultures, CO2 incubators, HPLC, water de-ionization/purification system, plant growth chamber, visible and UV spectrophotometers, multimode readers, advanced PCR machines, QRT-PCR machines, hybridization oven, advanced table and floor top centrifuges, ELISA reader, cold room, gel documentation system, Nanodrop, flow cytometer, fermenter.servers for computational work etc. The department also has access to equipment in the central instrumentation facility provided by the institute which houses instruments such as nano-drop, HPLC, GC, AAS, spectro-fluorimeter, LC-MS, FPLC, FTIR, , confocal microscope, etc.

**21. Special research laboratories sponsored by /created by industry or corporate bodies**

DST-FIST laboratory, funded by the Department of Science and Technology contain equipment such as flowcytometer, realtime PCR machine, phosphorimager.

**22. Publications:**

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	305
2	Monographs	2
3	Chapters in Books	14
4	Edited Books	6
5	Books with ISBN with details of publishers Assessment of Titanium dioxide nanoparticle toxicity in earthworms, ISBN: 978-3-659-55283-0, Lambert Academic Publishing, 2014.	1
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	250
7	Citation Index – range / average	Range: 58-996 AVG: 369
8	SNIP	AVG: 1.236
9	SJR	AVG: 1.031
10	Impact Factor – range / average	0.01-19.45 AVG: 3.25
11	h-index	AVG: 8.8



**Details of the publications as per the number given above (Give details in the last five years)**

Sl No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	Pavan Kumar Mujawdiya and Suman Kapur	Mangiferin: A potential natural molecule for management of metabolic syndrome,	International Journal of Pharmacy and Pharmaceutical Sc.	International	2015
2	Anthony F. Santoro, M.A., Sonia Suchday, Amina Benkhokha, B.S., Natasha, Ramanayake, Suman Kapur	Adverse Childhood Experiences and Religiosity/Spirituality in Emerging Adolescents in India	Psychology of Religion and Spirituality ( <a href="http://dx.doi.org/10.1037/rel0000038">http://dx.doi.org/10.1037/rel0000038</a> )	International	2015
3	Shivani Gupta, DV Padmavathi, Apoorva Verma and Suman Kapur	Garlic: An effective functional food to combat the growing antimicrobial resistance	J. Tropical Agriculture & Science (38: 271-8)	International	2015
4	Priyanka Sharma, Bharati MR, Dave, M, Suman Kapur, Narayan KP	Comparative Analysis of Apoptotic Activity From Extracts of Highly Saponin Producing Indian Medicinal Plants	Journal of Pharmacy Research (8 (12): 1779-84)	National	2014
5	Abraham, B. and Kapur, S.	Employing Information and Communication Technologies to Strengthen the Adolescent Health Program in India, Phase 1	Indian J of Medical Informatics (8(2), 30-31)	National	2014
6	Shivani Gupta, Suman Kapur and Rashi Jain	Marine Derived Fungi A. cervinus NCIM 1356: A Potential Source of HMGR inhibitors	Journal of Pharmacy Research (8(10) 1364-1367)	National	2014
7	Shivani Gupta, Suman Kapur	Simvastatin: Biological production, therapeutic applications and proposed alternative hypothesis for biosynthesis	International Journal of Pharm. Sc. Review & Res., (27(2), 279-284)	International	2014
8	Shivani Gupta, Rashi Jain and Suman Kapur	Statins: A Review of Wonder Drug from Fungus	Research Journal of Pharmacy & Technol; ( 7: 1201-7)	National	2014
9	Shivani Gupta, Suman Kapur and DV Padmavathi	Comparative prevalence of antimicrobial resistance (AMR) in uropathogens as observed in urinary tract infection cases from	Journal of Clinical & Diagnostic Research, (8(9):09-12)	International	2014



		representative states of northern and southern India			
10	Suman Kapur, Shivani Gupta, Padmavathi DV, Anuradha Pal, Jitendra Pant, Rashi Jain	Rapid sensor based technology: A novel tool for direct antimicrobial susceptibility testing in urinary tract infection	Translational Medicine & Biotechnology, 2(1): 22-28)	International	2014
11	A Benkhokha, S Suchday, SC Saha, S Kapur	Gender differences in health knowledge and how it translates to health related behavior in Indian adolescent	Psychosomatic Med. (76 (3): A26-A26)	International	2014
12	Shivani Gupta, Chhavi Rathi and Suman Kapur	Biologically induced self-healing concrete: A futuristic solution for crack repair	Int. Journal of Applied Sciences & Biotechnology (1(3): 85-89)	International	2013
13	Rupak Kumar, Punita Manga, Shivani Gupta, Suman Kapur	Biological approaches for treating industrial effluents containing morpholine	In: book Industrial & environmental biotech.	International	2013
14	S. Kapur, S Gupta, S Sharad, S. Shastry, Padhmavati, DV	Growing antibiotic resistance in uropathogens due to irrational use of antibiotics	J. Antimicrobials, Photon (128: 166-71)	International	2013
15	Shipra Mehra, Suman Kapur, Suma Ganesh	Association between a Tetranucleotide Repeat Polymorphism of SPAG16 Gene and Cataract in Male Children	Journal of Biomarker (Vol. 2013, Article ID 810395	International	2012
16	Kankanampati Krishnaveni, Rosaline Mishra, K Pushkala, D Velayudam, Suman Kapur	Ethanol extract of Mangifera indica seed kernel ameliorates visceral fat via improvement in lipid metabolism in high fat diet induced obese mice	J. Pharm. Res, 5(10): 4974-78		2012
17	K M Siddharth, Suman Kapur, C. Venkata S. Ram	Angiotensin Converting Enzyme Gene Polymorphism and Hypertension: No Ace Yet in the Pack of Cards	JAPI, ( 60: 9-10 ) (Editorial)	National	2012
18	Shaifali Gurjar, Anuradha Pal and Suman Kapur	Triphala and Its Constituents Ameliorate Visceral Adiposity in High Fat Diet –Induced Obese Mice	Alternative Therapies in Health & Medicine (18(6): 38-45)	International	2012



19	Sharma M, Sachdev V, Singh N, Bhardwaj P, Pal A, Kapur S, Saraya A	Alterations in intestinal permeability & endotoxemia in severe acute pancreatitis	Trop. Gastroenterol. 33 (1):45-50	International	2012
20	Suman, Kapur, Anuradha Pal and Shashwat Sharad	Role of Opioidergic System in Humoral Immune Response (2184 downloads in 132 countries)	In "Immunosuppression: Role in Health and Disease", ISBN: 978-953-308-19	International	2012
21	Shipra Mehra, Suman Kapur, Saumyaa Mittal and P. K Sehgal	Common genetic link between Metabolic Syndrome components and senile cataract	Free Rad. Res. (46(2):133-40)	International	2011,
22	Suman Kapur, Anuradha Pal, Shaifali Gurjar, V.V. S. Pavan and Shashwat Sharad	Isolation and characterization of secondary metabolites "Saponins" from explants of Indian medicinal plant Chlorophytum borivillianum	IJPFR (1(2): 14-22)	International	2011
23	Suman Kapur, Bhupendra Singh, Lokesh Chaturvedi, Anuradha Pal, U. Dube	Occupation related health risks : As observed in police personnel from Rajasthan, India	Rakshin (84-100)	National	2011
24	Shipra Mehra, Kapur Suman, A Vasavada,	Polymorphism of the CRYGA and CRYGB genes among Indian patients with paediatric cataract	JPGM, (57 (3): 201-205)	National	2011
25	Hulme C, Akritopoulou-Zanze I, Dai WM, Beck B, ..., Vaddula BR, Kumar D, Sharad S, Dube U, Kapur S	A. Multi-component reactions in drug discovery	Adv Exp Med Biol (699:75-106) PMID: 20976585	International	2011
26	Sharma B, Srivastava S, Singh N, Sachdev V, Kapur S, A. Saraya	Role of Probiotics on Gut Permeability and Endotoxemia in Patients With Acute Pancreatitis: A Double-Blind Randomized Controlled Trial	Journal Clinical Gastroenterology (45(5):442-8)	International	2011
27	Suman Kapur	Anti diabetic herbal extract from chlorophytum borivillianum, Patent application No. 961/DEL/2008	The Patent Office J. No. - 17/2010, 11311-11317	National	2010



28	Shaifali Gurjar and Suman Kapur	Insight into the roles of gut microbes	Pharmacology online 3: (548-559)	International	2010
29	Manav Kapoor, Suman Kapur and LC Dhaka	D2S2944 marker: A common marker for the obesity-depression associations	J. of mental health & human behaviour. (15:24-30)	National	2010,
30	L. Tripathi, S. Mani, R. Raut, A. Poddar, P. Tyagi, U. Arora, A. de Silva, S. Swaminathan, N. Khanna	Pichia pastoris-expressed dengue 3 envelope-based virus-like particles elicit predominantly domain III-focused high titer neutralizing antibodies	Frontiers in Microbiology(In press)	International	2015
31	R. Raut, H. Beesetti, P. Tyagi, I. Khanna, S. K. Jain, V. U. Jeankumar, P. Yogeewari, D. Sriram, S. Swaminathan	A small molecule inhibitor of dengue virus type 2 protease inhibits the replication of all four dengue virus serotypes in cell culture	Virology Journal(12: 16)	International	2015
32	H. Beesetti, N. Khanna, S. Swaminathan	Drugs for dengue: a patent review (2010-2014)	Expert Opinion on Therapeutic Patents(24: 1171-1184)	International	2014
33	L. Levanov, S. Kuivanen, A. Matveev, S. Swaminathan, A.J. Hakala, O. Vapalahti.	Diagnostic potential and antigenic properties of recombinant tick-borne encephalitis virus subviral particles expressed in mammalian cells from Semliki Forest virus replicon	Journal of Clinical Microbiology(52: 814-822).	International	2014
34	Ravichand Palakurti, Dharmarajan Sriram, Perumal Yogeewari, and Ramakrishna Vadrevu	Multiple e-Pharmacophore Modeling Combined with High-Throughput Virtual Screening and Docking to Identify Potential Inhibitors of $\beta$ -Secretase (BACE1).	Mol. Inf. (32: 385 – 98)	International	2013
35	Rahul C. N, Shiva Krishna K, Meera M, Sandhya Phadke, Vidya Rajesh	Characterization of sequence diversity in Plasmodium falciparum SERA-5 from Indian isolates	Asian Pacific J. of Tropical Disease, 5 (Suppl.1), 80 - 84.	International	2015
36	T. Sathvika, Manasi, Vidya Rajesh, N. Rajesh	Microwave assisted immobilization of yeast in cellulose biopolymer as a green adsorbent for the sequestration of chromium	Chemical Engineering Journal, (279, 38 – 46)	International	2015



37	Manasi, Vidya Rajesh, N. Rajesh	An indigenous Halomonas BVR1 strain immobilized in crosslinked chitosan for adsorption of lead and cadmium	International J. of Biol. Macromolecules, (79, 300 – 308)	International	2015
38	C.N. Rahul, K. Shiva Krishna, M. Meera, Sandhya Phadke, Vidya Rajesh	Plasmodium vivax: N-terminal diversity in the blood stage SERA genes from Indian Isolates	Blood Cells, Molecules & Diseases, (55, 30– 35)	International	2015
39	Madhu Poornima Mamidala, Mahesh Kumar Kalikiri, Praveen Kumar P. T. V., N Rajesh, Om Sai Ramesh Vallamkonda, Vidya Rajesh	Consanguinity in India and its association with Autism Spectrum Disorder	Autism Research, (8, 224 – 228)	International	2015
40	Manasi, Vidya Rajesh, N. Rajesh	Adsorption Isotherms, Kinetics & Thermodynamic studies towards understanding the interaction between a microbe immobilized polysaccharide matrix and lead	Chemical Engineering Journal, (248, 342 – 351)	International	2014
41	Manasi, Vidya Rajesh, A. Santhana Krishna Kumar, N. Rajesh	Biosorption of cadmium using a novel bacterium isolated from an electronic industry effluent	Chemical Engineering J., (235, 176 -85)	International	2014
42	C.N. Rahul, Shiva K. Katakam, Meerabai, Vijay Kumar, Sandhya Phadke, Vidya Rajesh	Plasmodium vivax: C-terminal diversity in the blood stage SERA genes from Indian Isolates	Experimental Parasitology, (134, 82 – 91)	International	2013
43	C.N. Rahul, Shiva Krishna Katakam, Atul P. Pawar, Meerabai, Vijay Kumar, Sandhya Phadke, Vidya Rajesh	Genetic and structural characterization of PvSERA-4: Potential implications as therapeutic target for P.vivax malaria	J. of Biomol. structure & Dynamics, (32 (4): 580 – 90)	International	2014
44	Madhu Poornima Mamidala, Anupama Polinedi, Praveen Kumar. P. T. V, Rajesh N., Om Sai Ramesh Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh	Prenatal, perinatal, and neonatal risk factors of Autism Spectrum Disorder: A comprehensive epidemiological assessment from India	Research in Developmental Disabilities (34 (9), 3004-3013)	International	2013
45	Madhu Poornima M., Anupama Polinedi, Praveen Kumar P.T. V, Rajesh N., Om Sai R.amesh Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh	Maternal hormonal interventions as a risk factor for Autism Spectrum Disorder: an epidemiological assessment from India	Journal of Biosciences (38 (5), 887 – 892)	National	2013



46	A. Santhana Krishna Kumar a, Revathi Ramachandran, S. Kalidhasan, Vidya Rajesh, N. Rajesh	Potential application of dodecylamine modified sodium montmorillonite as an effective adsorbent for hexavalent chromium	Chemical Engineering Journal, (211-212, 396 –405)	International	2012
47	A. Santhana Krishna Kumara, Timsi Gupta, Shruti Singh Kakan, S. Kalidhasan, Manasi, Vidya Rajesh, N. Rajesh	Effective adsorption of hexavalent chromium through a three center (3c) co-operative interaction with an ionic liquid and biopolymer	Journal of Hazardous Material, (239-240, 213 – 224)	International	2012
47	S. Kalidhasan, Priyanka Amba Gupta, Vinusha Reddy Cholleti, A. Santhana Krishna Kumar, Vidya Rajesh and N. Rajesh,	Microwave assisted solvent free green preparation and physicochemical characterization of surfactant-anchored cellulose and its relevance towards the effective adsorption of chromium	Journal of Colloid and Interface Science, (372, 88 – 98)	International	2012
48	S. Kalidhasan, A. Santhana Krishna Kumar, Vidya Rajesh and N. Rajesh	Ultrasound Assisted Preparation and Characterization of Crystalline Cellulose-Ionic Liquid Blend Polymeric Material: A Prelude to the Study of its Application towards the Effective Adsorption of Chromium	Journal of Colloidal and Interface Science, (367, 398 – 408)	International	2012
49	S. Kalidhasan, A. Santhana Krishna Kumar, Vidya Rajesh and N. Rajesh	An efficient ultrasound assisted approach for the impregnation of room temperature ionic liquid onto Dowex 1 x8 resin matrix and its application towards the enhanced adsorption of chromium (VI)	Journal of Hazardous Materials (213, 249 – 257)	International	2012
50	A. Santhana Krishna Kumar, S. Kalidhasan, Vidya Rajesh, N. Rajesh	Application of Cellulose-Clay Composite Biosorbent towards the Effective Adsorption and Removal of Chromium from Industrial Wastewater	Industrial & Engineering Chemistry Research, (51, 58– 69)	International	2012
51	N. Rajesh, A. S. Krishna Kumar, S. Kalidhasan, Vidya Rajesh	Trialkyl amine impregnated macroporous polymeric sorbent for the effective removal of chromium from industrial waste water	J. of Chemical and Engineering Data, (56, 2295– 2304)	International	2011





52	A.S. Krishna Kumar, S. Kalidasan, Vidya Rajesh, N. Rajesh	Microwave assisted preparation and characterization of biopolymer-clay composite material and its application for chromium detoxification from industrial effluents	Advanced Material Letters, (2 (6), 383 – 391)	International	2011
53	S.Kalidasan, A.S.Krishna Kumar, Vidya Rajesh, N. Rajesh	A preliminary spectroscopic investigation on the molecular interaction of metal – diphenylthiocarbazone complex with cellulose biopolymer & its application	Spectrochimica Acta; Part A, (79, 1681 – 1687)	International	2011
54	A. S. Krishna Kumar, S. Kalidhasan, Vidya Rajesh, N. Rajesh	An enhanced adsorption methodology for the detoxification of chromium using n-octylamine impregnated Amberlite XAD-4 polymeric sorbent.	J. of Environmental Science & Health: Part A, 46 ((13), 1598 – 1610)	International	2011
55	Sita Ramyasree Uppada and Jayati Ray Dutta	Immobilization and kinetic study of lipase enzymes from Lactobacillus plantarum & Lactobacillus brevis	International Journal of chemTech Res. (8: 682-5)	National	2015
56	Sita Ramyasree Uppada, Aditya Balu, Amit Kumar Gupta and Jayati Ray Dutta	Hybrid Neural Network based Optimization of Process parameters and application of Taguchi method for Lipase production from Co-culture of Lactobacillus brevis and Lactobacillus plantarum,	International Journal of PharmaTech Research, Sphinxsai (6: 2074-82)	National	2014
57	Sita Ramyasree Uppada, Aditya Balu, Amit Kumar Gupta and Jayati Ray Dutta.	Modeling lipase production from co-cultures of lactic acid bacteria using neural networks and support vector machine with genetic algorithm optimization.	Int. J. of Emerging Technologies in Computational & App. Sc. (9: 38-43)	International	2014
58	Sita Ramyasree Uppada and Jayati Ray Dutta.	The effect of process parameters in enhancement of lipase production by co-culture of lactic acid bacteria and their mutagenesis study.	Biocatalysis & Agricultural Biotech. (2: 393-8).	International	2013



59	Sita Ramyasree Uppada, Amit Kumar Gupta, Jayati Ray Dutta.	Statistical optimization of culture parameters for lipase production from <i>Lactococcus lactis</i> and its application in detergent industry,	Int. J. of ChemTech Research, Sphinxsai, (4: 1509-1517)	International	2012
60	Jayati Ray Dutta and U. Sita Ramyasri.	Optimization of L-arabinose isomerase production from <i>Lactococcus lactis</i> : bioconversion of D-galactose to D-tagatose using the enzyme.	International Journal of Biosciences, (10: 48-57)	International	2012
61	Dibyendu Rakshit, P. Sankar Ganesh, Santosh Kumar Sarkar	Choreotrich ciliatetintinnid (Protozoa: Ciliophora) in a Tropical mesomacrotidal estuary, eastern part of India	Regional Studies in Marine Science (In Press)	International	2015
62	Ranju Chowdhury, Paulo J. C. Favas, J. Pratas, M. P. Jonathan, P. Sankar Ganesh, Santosh Kumar Sarkar	Accumulation of trace metals by mangrove plants in Indian Sundarban Wetland: Prospects for Phytoremediation	International Journal of Phytoremediation (17:9, 885)	International	2015
63	Mohandass D, Puyravaud JP, Hughes AC, Davidar P, Ganesh PS, Campbell M	Edge transition impacts on swamp plant communities in the Nilgiri mountains, Southern India	App. Ecology & Environmental Research (12:4, 909)	International	2014
64	Ch. Surekha, NRR Neelapu, B. Siva Prasad, P. Sankar Ganesh	Induction of defense enzymes and phenolic content by <i>Trichoderma viride</i> in <i>Vigna mungo</i> infested with <i>Fusarium oxysporum</i> and <i>Alternaria alternata</i>	International J. of Agricultural Science & Research (4:4, 31)	National	2014
65	Ch. Surekha, NRR Neelapu, G. Kamala, B. Siva Prasad, P. Sankar Ganesh	Efficacy of <i>Trichoderma viride</i> to induce disease resistance & antioxidant responses in legume <i>Vigna mungo</i> infested by <i>Fusarium oxysporum</i> and <i>Alternaria alternata</i>	International J. of Agricultural Science & Research (3:2, 285)	National	2013
66	Sharma P, Banerjee Rajkumar and Narayan KP	Gene Therapy: Potential Use of Liposomes.	Int. J. Pharm. Sci. Rev. Res., (23: 126-32).	National	2013



67	Sharma P, Banerjee Rajkumar and Narayan KP	Liposomes for controlled drug delivery: drugs of the future.	Journal of Pharmacy Research (8: 637-41).	National	2014
68	Sharma P, Bharati M R, Dave M, Kapur S and Narayan K P	Comparative analysis of apoptotic activity from extracts of saponin-rich Indian medicinal plants.	J. of Pharmacy Res. (8: 1779-84).	National	2014
69	H. Venkata, N. Reddy, I.Khan and P. Mandal	Effect of alcohol on adipose tissue.	Adipocyte (4: 225-231)	International	2015
70	K.N. Mohan	Stemcell models to investigate the role of DNA methylation machinery in development of neuropsychiatric disorders.	Stem cells International (In press).	International	2015
71	Saxena S, Gowdhaman K, Kkani P, Vennapusa B, Rama Subramanian C, Ganesh Kumar S, Mohan KN	Improved Multiplex Ligation-dependent Probe Amplification (i-MLPA) for rapid copy number variant (CNV) detection.	Clinica Chimica Acta (450: 19-24).	International	2015
72	McGraw S, Zhang JX, Farag M, Chan D, Caron M, Konermann C, Oakes CC, Mohan KN, Plass C, Pastinen T, Bourque G, Chaillet JR, Trasler JM	Transient DNMT1 suppression reveals hidden heritable marks in the genome.	Nucleic Acids Res. (43: 1485-97)	International	2015
73	Chaste P, Sanders SJ, Mohan KN, Klei L, Song Y, Murtha MT, Hus V, Lowe JK, Willsey AJ, Moreno-De-Luca D, Yu TW, Fombonne E, Geschwind D, Grice DE, Ledbetter DH, Lord C, Mane SM, Martin DM, Morrow EM, Walsh CA, Sutcliffe JS, State MW, Martin CL, Devlin B, Beaudet AL, Cook EH Jr, Kim SJ.	Modest impact on risk for autism spectrum disorder of rare copy number variants at 15q11.2, specifically breakpoints 1 to 2	Autism Research, 7: 355-362)	International	2014
74	Szafranski P, Dharmadhikari AV, Brosens E, Gurha P, Kolodziejska KE, Zhishuo O, Dittwald P, Majewski T, Mohan KN, Chen B, Person RE, Tibboel D, de Klein A, Pinner J, Chopra M, Malcolm G, Peters G, Arbuckle S, Guiang SF 3rd, Hustead VA, Jessurun J, Hirsch R, Witte	Small noncoding differentially methylated copy-number variants, including lncRNA genes, cause a lethal lung developmental disorder	Genome Res. (23: 23-33).	International	2012



	DP, Maystadt I, Sebire N, Fisher R, Langston C, Sen P, Stankiewicz P.				
75	Parvej Alam, Maheswararao Karanam, Debashree Bandyopadhyay, Angshuman Roy Choudhury, Inamur Rahaman Laskar	Luminescence Vapochromic Properties in a New Class of Aggregation Induced Emission Active Iridium(III)-Diimine Complexes	European Journal of Inorganic Chemistry (23, 3710-9).	International	2014
76	Sheik Saleem Pasha, Parvej Alam, Subhra Dash, Gurpreet Kaur, Debashree Bandyopadhyay, Rajdeep Chowdhury, Nigam Rath, Angshuman Roy Choudhury, I R. Laskar	Rare Observation of 'Aggregation Induced Emission' in Cyclometalated Platinum(II) Complexes and their Biological Activities	RSC Advances (4: 50549-53).	International	2014
77	Akshay Bhatnagar and Debashree Bandyopadhyay	Role of Microenvironment in modulating structure and function of Cystine residues in high-resolution protein crystal structures	Proceed. of 4th Ann. Int. Conf. on Ad. in Biotech.	International	2014

Sl No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	Suman Kapur, Devinder Kumar, Urvashi Kaushik, Nirupma Prakash and RP Pareek	Assessment of anemia in adolescents residing villages around Pilani	Empowering Women in Developing Countries through Better Healthcare and Nutrition', 22-24 April held at Pilani	International	2010
2	Suman Kapur, R.P Agarwal, Liakat Gauri and P.K Sehgal, Urvashi Dube	APOE & OB: Probable common genetic markers in metabolic disorders	14th Human Genome meeting, 18 to 21 May held at Montplier, France	International	2010
3	Suman Kapur	APOE & Ob: Probable common genetic marker in metabolic disorders	52nd JSIMD and 9th ASIMD 20th -24th Oct held at Osaka, Japan from	International	2010
4	Suman Kapur, Anuradha Pal, Shashwat Sharad and L. C Dhaka	OPRM1 gene: Functional polymorphism in Exon I and correlation with susceptibility to alcohol and opiate dependence	31st SFN meeting, 12th-16th Nov held at San Diego, USA	International	2010
5	Suman Kapur, Anuradha Pal,	17T and 118G alleles of OPRM1 gene: A potential	FAONS 2010 25th -27th Nov held at Lucknow	International	2010



	Shashwat Sharad and L. C Dhaka	marker for susceptibility to alcohol dependence			
6	Kuldeep Gupta, Shaifali Gurjar, K. Pushkala and Suman Kapur	Reduction of fat storage in mice fed on high-fat diet after treatment with <i>Mangifera indica</i> seed Kernel ethanolic extract	IPS-2010 14th to 16th Dec held at Hyderabad	National	2010
7	Suman Kapur, Shashwat Sharad, Anuradha Pal and L. C Dhaka	Opiate receptor alleles and alcohol dependence	19th European Congress of Psychiatry, EPA2011, 12th to 15th Mar held at Vienna, Austria	International	2011
8	Suman Kapur, Shivani Gupta and Punita Manga	Bioremediation of Morpholine containing Industrial Waste Water	Association of Chemical Engineers (ACE), 1st April BITS Pilani Hyderabad Campus	National	2012
9	Suman Kapur	Invited lecture entitled "Genes, Environment, Diet and Disease"	11th Summer Training Course, 30th June, being held at Manipal	National	2012
10	Suman Kapur	Invited lecture entitled "Cultural aspects of research across countries"	19th June Albert Einstein College of Medicine, New York	International	2012
11	Anuradha Pal, Shashwat Sharad, Suman Kapur	OPRM1 gene mutations and glucose homeostasis"	International Omics meeting 24th to 27th Sep held in Hyderabad	International	2012
12	P. Parikh, A. Sethi, S. Benedict, D. Nagendra Prasad, B. Mallik, S. Kapur, S. Deb and S. Banerjee	Effect of conductivity and viscosity in the velocity characteristics of a fluid flow induced by non-uniform ac electric field in electrolytes on microelectrodes	Cosmol India 2012 2nd to 3rd Nov held at Bangalore	National	2012
13	Suman Kapur	Invited talk entitled "Genes, diet, environment and health"	International on Anthropogenic Impacts on Environment and Bioremediation (ICAIEB-2012) 26 to 28 Nov held at Tirupati	International	2012
14	Anuradha Pal, and Suman Kapur	Insight into innate immune response :role of Asn40Asp allele of OPRM1 gene	15th International congress of Immunology Immunology 22nd-27th Aug held in Milan, Italy	International	2013
15	Blesson M. Abraham, Jasmine Helen Prasad and Suman Kapur	A comprehensive school health program on reducing the tobacco prevalence- An interventional study	International on Public Health priorities 10-12th Sep held at Delhi	International	2013



16	Padmavathi D.V and Suman Kapur	“Sarcosine as a biomarker for extra-capsular prostatic disease”	International on Emerging trends in Biomarker Research: Prospects and Challenges,13th to 14th Sep held at Hyderabad	International	2013
17	Rupak Kumar and Suman Kapur	Quantitative Estimation of Morpholine by Gas Chromatography	ICE 2013 15-16th Nov held at Hyderabad	International	2013
18	Anuradha Pal and Suman Kapur	Insight into innate immune response: Role for Asn40Asp allele of oprm1 gene	15th International congress of Immunology 22nd-27th Aug held in Milan, Italy	International	2013
19	Anuradha Pal, Suman Kapur	118g polymorphism in exon-I of oprm1 gene protects against cancer: a hypothesis	EMBO-India Bioscience Young Scientist Networking Meeting (YSN) 7th-10th Nov held at Bangalore, Karnataka	International	2013
20	Anuradha Pal, Suman Kapur	Modulating cell proliferation pathways: Effect of Asn40Asp allele of OPRM1	at XXXVII All India Cell Biology on Cell Dynamics and Cell Fate Dec 22-24th, held at Indian Institute of Science, Bangalore	National	2013
21	Sai Chinmayi Jillellamudi, Sruthi Varier, Suman Kapur	Regulatory Micro RNAs Regulated by Macro Environment	International on Emerging trends in Science & Technology Impact on Environment & Society for inclusive growth, 14-15 Feb held at AISECT University, Mendua, M.P., India	International	2014
22	Shivani Gupta, Rupak Kumar, D.V. Padmavathi and Suman Kapur	Environment pollutant (Morpholine): Contribution to antimicrobial resistance (AMR)	International on Emerging trends in Science & Technology Impact on Environment & Society for inclusive growth, 14-15 Feb held at AISECT University, Mendua, M.P., India	International	2014
23	D.V. Padmavathi, Shivani Gupta, Apoorva Verma and Suman Kapur	Allium sativum: A functional food to combat the growing antimicrobial resistance (AMR)	International on Emerging trends in Science & Technology Impact on Environment & Society for inclusive growth, 14-15 Feb held at AISECT University, Mendua, M.P., India	International	2014
24	Pavan K. Mujawdiya, Shaifali Gurjar, Anuradha Pal and Suman Kapur	Holes in the Gut: Gut permeability as a consequence of diet and environmental changes, presented at the International on Emerging trends in Science & Technology	International on Emerging trends in Science & Technology Impact on Environment & Society for inclusive growth, 14-15 Feb held at AISECT University, Mendua, M.P., India	International	2014



25	Suman Kapur, Anuradha Pal, Shivani Gupta, D.V.Padmavathi	Ultra Rapid test for determining antibiotic sensitivity: RightBiotic	International on Emerging trends in Science & Technology Impact on Environment & Society for inclusive growth, 14-15 Feb held at AISECT University, Mendua, M.P., India .	International	2014
26	Suman Kapur	Environment and Health: Approaches for mitigating ill-health effects environment degradation	International on Emerging trends in Science & Technology Impact on Environment & Society for inclusive growth, 14-15 Feb held at AISECT University, Mendua, M.P., India	International	2014
27	Suman Kapur	Invited speaker at British Council's Global Education Dialogue held at Colombo, Sri Lanka	International Forum on Women in Higher Education, 17 to 18th Mar	International	2014
28	Rupak Kumar and Suman Kapur	The Biodegradation of environmental pollutant-morpholine	National on biodiversity, environmental hazards-therapeutic approaches and drug design, July 26-27, held at Govt. degree college for women, Srikalahasti, A.P	National	2014
29	Suman Kapur	Genomics in Health and Diseases plenary	Genomics in Health and Diseases Aug 22-23, organized by CIENCIA publishers Erragadda, Hyderabad, India	National	2014
30	Suman Kapur	Changing Demographics, Globalization, Environ-ment and Health Care	ISEC, 2014 to be held at Bangalore from 27th - 28th October 2014	National	2014
31	Sanyam Garg, Ramprasaath Ramasamy Selvaraju, Suman Kapur MM. Rao Kunda	Automated colorimetric analysis in paper based sensors	IEEE International on Image Processing (ICOIP 2014) 27-30th Oct held at CNIT La Defense, Paris.	International	2014
32	Blesson Memana Abraham and Suman Kapur	School based interventional studyemploying information andcommunication technologies to strengthen the adolescent health program in india	APAMI 2014, Nov 1-2, held in New Delhi	National	2014
33	Blesson Memana Abraham and Suman Kapur	Employing Information and Communication Technologies to Strengthen the Adolescent Health Program in India	14th World Congress on Public Health, 11-15 Feb Kolkata, India	International	2015
34	Suman Kapur, Shivani Gupta and Anuradha	RightBiotic: A point of Care (POC) device for detection of antibiotic sensitivity of	14th World Congress on Public Health, 11-15 Feb Kolkata, India	International	2015



	Pal	asymptomatic UTI in Pregnant Women, 2014			
35	S. Gurjar, M. Mahajan, S. Kapur	Triphala and its constituents alters gut microbiota in high fat diet induced obese mice	2nd International Congress of Society for Ethnopharmacology, India, 15-17 <sup>th</sup> Feb held in Nagpur	International	2015
36	Sonia Suchday, Suman Kapur, Sribash Saha, Carlos Marquez, Amina Benkhokha, and Natasha Ramanayake	Psychological profile of urban adolescents with elevated blood pressure in India	American Psychosomatic Society meeting in Texas in 15th March 2015.	International	2015
37	Suman Kapur	Keynote lecture "Role of sophisticated instruments in herbal drug development"	National Seminar on Quality, Safety and Efficacy of Ayurvedic drugs, 23rd -24th May, held at Chitrakoot, India.	National	2015
38	Manjyot Kaur, Rupak Kumar, DV Padmavathi, Shivani Gupta, Anuradha Pal and Suman Kapur	Bacterial Strains for Morpholine Degradation: An Adaptation and Screening Strategy	International conference on Advances in Agricultural, Biological and Environmental Sciences (AABES-2015) July22-23rd in London	International	2015
39	Suman Kapur	Turning research into tools: Emerging Technology Platforms in Immunodiagnosics & Therapy	2nd International on Biotechnology and Pharmaceutical Sciences 3-4Aug at Leonia Inter-national Centre for Exhibitions & Conventions, Hyd., India	International	2015
40	Suman Kapur	Turning research into tools: Emerging Technology Platforms For Point Of Care Devices For Diagnosis	International on Advances in Micro/Nanotechnologies (ICAMB-2015)7th and 8th Aug at PSG Institute of Advanced Studies, Coimbatore, India	International	2015
41	Suman Kapur	Role of technology in eye care	at ESO's International Vision Science and Optometry (EIVOC), Aug 14 - 16, held at Mahabalipuram, India	International	2015
42	Suman Kapur	RightBiotic: A point of Care (POC) device for detection of antibiotic sensitivity in uropathogens	5th Annual of the Clinical Infectious Diseases Society (CIDSCON) 2015, 21-23 Aug held at Gurgaon	National	2015
43	Shivani Gupta and Suman Kapur	Bio prospecting of un-explored marine sources for production of HMG Co-Reductase Inhibitor	9th American Biotechnology Congress Aug 31-Sep 02, held at Orlando, Florida, USA	International	2015





44	R. Raut, H. Beesetti, P. Tyagi, I. Khanna, S. K. Jain, V. U. Jeankumar, P. Yogeewari, D. Sriram and S. Swaminathan.	A small molecule inhibitor of dengue virus type 2 protease inhibits the replication of all four dengue virus serotypes in cell culture.	SIPRA 2015-National Symposium on Innovative Pharma Research, July 2, 2015, SIPRA Labs, Hyderabad.	National	2015
45	R. Sood, N. Khanna and S. Swaminathan	Search for dengue drugs.	4 <sup>th</sup> Molecular Virology Meeting, April 16-17, 2015, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, Kerala.	National	2015
46	S. Swaminathan	Available vaccines in the market-efficacy and challenges.	WHO-Symposium on dengue prevention and control organized by South East Asian Regional Office, World Health Organization, Department of Biotechnology, Govt. of India and Translational Health Sciences and Technology Institute (THSTI), Sept. 29, 2014, New Delhi.	International	2014
47	C.N.Rahul, Shiva Krishna K, Vidya Rajesh	Structural modelling of Plasmodium vivax blood stage Serine Repeat Antigens (PvSERA)	CIDSCON 2015 - 5th Annual of Clinical Infectious Diseases Society, ND, 21-23Aug	National	2015
48	Manasi, Vidya Rajesh, N. Rajesh	A graphene oxide microbe combination as an effective adsorbent for the remediation of zinc	International on Frontiers in Biological Sciences, NIT, Rourkela, 22nd - 24th January	International	2015
49	T.Sathvika, Vidya Rajesh, N. Rajesh	A novel fungal biopolymer combination as an adsorbent for effective removal of hexavalent chromium	International on Frontiers in Biological Sciences, NIT, Rourkela, 22nd - 24th January	International	2015
50	Madhu Poornima Mamidala, Mahesh Kumar Reddy, Vidya Rajesh	An epidemiological study on maternal polycystic ovarian syndrome as risk factor for Autism Spectral Disorder	Evidence in Global Disability and Health, Hyderabad Central University, 22-23Feb	International Symposium	2014
51	Manasi, Vidya Rajesh, Satvika T., N. Rajesh	Removal of zinc using a novel microbe-polysaccharide adsorbent	16th CRSI National Symposium in Chemistry, IIT, Bombay, 7 <sup>th</sup> - 9 <sup>th</sup> February	National Symposium	2014
52	Manasi, A. Santhana Krishna Kumar, Vidya Rajesh, N. Rajesh,	Adsorption of Cadmium and Lead using a novel bacterial strain isolated from E-waste	Indian Analytical Science Congress, Goa, 15 <sup>th</sup> - 17 <sup>th</sup> August	National	2013



53	Madhu Poornima Mamidala, Mahesh Kumar Reddy K., Praveen Kumar PTV, N. Rajesh, Vidya Rajesh	Thyroid malfunction as a risk factor for Autism Spectrum Disorder	International on Cerebral Palsy and developmental medicine, Lucknow, 6th -10th March	International	2013
54	A.Santhana Krishna Kumar, S. Kalidasan, Vidya Rajesh, N. Rajesh	Cellulose impregnated with mercaptobenzo-thiazole for the effective adsorption of mercury from aqueous solution	CRSI National symposium in Chemistry (NSC-14) NIIST, Trivandrum, 2 <sup>nd</sup> -5 <sup>th</sup> Feb.	National Symposium	2012
55	C.N. Rahul, Shiva Krishna K, Ekta Khetan, Sheetal Modi, B.V.S. Manjula, Vidya Rajesh	Cloning of vaccine candidate antigen PvSERA-4 of malarial parasite P.vivax from Indian field Isolates	National Symposium on Immunology – Voyage from serology to molecular biology in Health care, February 16 <sup>th</sup> – 18 <sup>th</sup> , 2012.	National Symposium	2012
56	A. Santhana Krishna Kumar, Timsi Gupta, Shruti Singh, S. Kalidhasan, Vidya Rajesh, N. Rajesh	Chitosan-Ionic liquid blend polymeric sorbent material for the effective adsorption of chromium	International on Nanomaterials and Nanotechnology, Univ. of Delhi, 18th -21st Dec	International	2011
57	C.N. Rahul, Shiva Krishna K, P.B.S. Manjula, P. Vaideesh, A.K.Das, Vidya Rajesh,	Characterization of sequence diversity of the octamer repeat domain of Plasmodium falciparum Serine Repeat Antigen (pfSERA) in Indian Isolates	XI <sup>th</sup> Symposium on Vector and Vector Borne Diseases, Jabalpur, October 14 <sup>th</sup> – 17 <sup>th</sup>	National Symposium	2011
58	A.Santhana Krishna Kumar, Revathy Ramachandran, S. Kalidasan, Vidya Rajesh, N. Rajesh	An efficient approach for the adsorption of chromium using dodecyl-amine modified sodium montmorillonite clay	International on Vistas in Chemistry held at IGCAR, Kalpakkam, October 11th -13th	International	2011
59	S. Kalidasan, A.Santhana Krishna Kumar, Vidya Rajesh, N. Rajesh	Ionic liquid impregnated polystyrene divinyl-benzene adsorbent for the effective adsorption of chromium	International on Vistas in Chemistry held at IGCAR, Kalpakkam, October 11th -13th	International	2011
60	Madhu Poornima Mamidala, C.N. Rahul, N. Rajesh, Vidya Rajesh	Assessment of Assisted Reproductive Technology and its associated risk with Autism Spectral Disorder in Indian population	European Human Genetics , 28th – 31st May, Amsterdam, The Netherlands.	International	2011



61	A. S. Krishna Kumar, N. Rajesh, Vidya Rajesh. sry	Green composite for the effective adsorption of heavy metal chromium	National seminar on Nanostructure materials and Applications (NSNMA-2011), March 04 <sup>th</sup> -05 <sup>th</sup> , Madurai, India	National Seminar	2011
62	S. Kalidhasan, Vidya Rajesh and N. Rajesh	Bio-polymer adsorbent for the removal of malachite green from aqueous solution	National on Green and Sustainable Chemistry, BITS, Pilani.19st – 21th February.	National	2010
63	A. Santhana Krishna Kumar, S.Kalidhasan, Vidya a Rajesh, N. Rajesh	Removal of Chromium from Industrial effluents using Amberlite XAD 1180 resin impregnated with n-Octylamine	Poster presented at International on Natural Polymers(ICNP), 24th – 26th Sept	International	2010
64	Ravichand Palakurti, Ramakrishna Vadrevu	Abelson Tyrosine Kinase, a new Enzyme target for Alzheimer's Disease: Exploring multiple e-pharmocophore modeling, virtual screening, selectivity assessment for potential inhibitors	The 29 <sup>th</sup> Annual Symposium of The Protein Society, Barcelona, Spain, July 22-25.	International	2015
65	Ramakrishna Vadrevu, Jagadeesh Gullipalli, Rajashekar Kadumuri, Srividya Subramanian Koushik Chandra, Hanudutta Atreya	Molecular crowding effects on the native and equilibrium intermediate state of a 29 kDa TIM Barrel protein.	The 29 <sup>th</sup> Annual Symposium of The Protein Society, Barcelona, Spain, July 22-25.	International	2015
66	G. Jagadeesh, K. Raja Shekar Varma & Ramakrishna Vadrevu	Consequences of crowding on the native and equilibrium intermediate state of a 29 kDa TIM barrel protein	Gordon Research , Holderness NH United States, June 14- 19.	International	2015
67	Ramakrishna Vadrevu, Rajashekar V. Kadumoori	The $\beta/\alpha$ and $\alpha/\beta$ loops of TIM Barrel Proteins: Database and Structural Analysis.	The 28 <sup>th</sup> Annual Symposium of The Protein Society, San Diego, USA, July 27-30.	International	2014
68	K. Raja Sekhar Varma, Nabeel Ahmed, P. Ravichand, Ramakrishna Vadrevu	Exploring sequence and structural patterns of the b/a loops in TIM Barrel Proteins: Lessons for Loop grafting	International on Advances in Biological Sciences, Kannur Univ. India, Mar 15-17.	International	2012



69	P. Ravichand, Ramakrishna Vadrevu, P. Yogeswari, Sriram	Structure based pharmacophore and virtual screening of b-secretase inhibitors	International on Advances in Biological Sciences, Kannur Univ., India, Mar 15-17.	International	2012
70	Sharma P, Banerjee R and Narayan K P	Steroid hormone receptor mediated liposomal delivery system induces apoptosis in cancer cells in a targeted manner. (Best Poster Award)	International on stem cells and cancer (ICSCC-2014): Proliferation, differentiation & apoptosis at JNU Convention Centre, New Delhi, India, 8-10 Nov,	International	2014
71	Sharma Priyanka, Bharati MR, Dave M and Narayan	Phytoextracts from highly saponin producing plants induces cytotoxicity and apoptosis in cancer cells	International on Chemical Biology (ICCB-14). Chemical Biology Society of India and CSIR-Indian Institute of Chemical Technology, Hyderabad, Feb, 6-8	International	2014
72	U. Sita Ramyasri and Jayanti Ray Dutta	Microbial Lipase mediated ester synthesis for its industrial application	2nd International and Exhibition on Biotechnology, (BRIGHTICE), Leonia, Hyderabad, Aug, 3-4.	International	2015
73	U. Sita Ramyasri and Jayanti Ray Dutta	Application of expressed lipase from <i>Lactobacillus plantarum</i>	In International Symposium on "Proteomics: Present and Future" CCMB, Hyd., India, Nov 22-24.	International	2014
74	U. Sita Ramyasri and Jayanti Ray Dutta	Lipase mediated ester synthesis from different lactic acid bacteria through coculture technique -	In International on Biodiversity, Bioresources and Biotechnology, Mysore, India, Jan 30-31.	International	2014
75	U. Sita Ramyasri and Jayanti Ray Dutta	Optimization of culture conditions for the production of lipase by co-culture of <i>Lactobacillus brevis</i> and <i>Lactococcus lactis</i>	In International on Advances in Chemical Engineering (ICACE), NIT, Raipur, Chhattisgarh, India, April 5-6	International	2013
76	U. Sita Ramyasri and Jayanti Ray Dutta	Statistical optimization of culture conditions by Response surface methodology, Artificial neural network and Genetic algorithm for synthesis of lipase from <i>Lactococcus lactis</i>	In World Congress Biotechnology, Bright International, Leonia International Convention Centre, Hyderabad, India, May 4-6	International	2012
77	U. Sita Ramyasri and Jayanti Ray Dutta	Enzymatic transesterification of non-edible oils for the production of biofuels	In contemporary trends in Biological and Pharmaceutical Research (CTBPR), BITS-Pilani, Rajasthan, March 12-13.	National	2011



78	Siva Prasad Bitragunta, Sankar Ganesh Palani.	Effect of TiO <sub>2</sub> nanoparticles on trace element homeostasis: An inquiry into metallomics in earthworm, <i>Eisenia foetida</i> .	4 <sup>th</sup> Young Environmental Scientists Meeting, Petnica Science Centre, Belgrade, Serbia, Europe, Mar 2015.	International	2015
79	B. Siva Prasad, P. Sankar Ganesh.	TiO <sub>2</sub> nanoparticle induced cytotoxicity and genotoxicity in earthworm coelomocytes: Effects on trace metals, antioxidant enzymes and DNA.	National on Natural Therapeutics for Cancer, Diabetes and Renal Diseases, Visakhapatnam, Mar 2015.	National	2015
80	B. Siva Prasad, P. Sankar Ganesh.	An integrated analytical approach to monitor TiO <sub>2</sub> nanoparticles in sewage water: An early warning for safety assessment of engineered nanomaterials in aquatic environment.	102 <sup>nd</sup> Indian Congress, Mumbai, India, Jan-2015.	National	2015
81	Siva Prasad Bitragunta and Sankar Ganesh Palani.	Confounding factors and future challenges to delineate ecotoxicity of TiO <sub>2</sub> nanoparticles.	9th SETAC Asia/Pacific , Adelaide, Australia, Sept 2014.	International	2014
82	B. Siva Prasad, S. Ashwini, P. Sankar Ganesh.	Physicochemical Characterization and Ecotoxicological Evaluation of TiO <sub>2</sub> nanoparticles in Earthworm <i>Eisenia foetida</i> .	53 <sup>rd</sup> Annual meeting, Society of Toxicology, Phoenix, Arizona. USA, Mar 2014.	International	2014
83	B. Siva Prasad, P. Sankar Ganesh.	Acetylcholinesterase response in fish <i>Catla catla</i> as a biomarker of chlorpyrifos contamination in fresh water ecosystem.	4th Annual International on Advances in Biotechnology (BIOTECH 2014), BITS Pilani, Dubai. Mar 2014.	International	2014
84	B. Siva Prasad, Ashwini Sri Hari and P. Sankar Ganesh.	Should we say NO to NaNO? Preliminary study to corroborate occurrence of nanoparticles in treated wastewater samples.	National on technology, policy and community, Small Experiments in Sustainability, BITS-Pilani, Hyd., India, Mar.	National	2014
85	Venkateswaran KS, Sankar Ganesh P	Occupational safety and health management skills development for the prospective entrepreneur and the professional manager.	National on Rethinking the Role of Humanities in Technical Education: Pedagogies and Possibilities, Hyderabad, India, Oct 2013.	National	2013



86	B. Siva Prasad, Asma Ahmed, P. Sankar Ganesh.	Potential applications of enzymes derived from termite gut microflora for biochemical degradation of lignocellulosic waste and concomitant biofuel production.	Innovations in Chemical Engineering (ICE), BITS Pilani, Hyderabad, India, Nov 2013.	National	2013
87	B. Siva Prasad, Ashwini Sri Hari, P. Sankar Ganesh	Development of Environmental Biomarkers to Monitor Endocrine Disrupting Chemicals in Water and Wastewater.	2nd National on Sustainable Water Resources Planning, Management and Impact of Climate Change, BITS Pilani, Hyd., April 2013.	National	2013
88	Mathews M. John, P. Sankar Ganesh.	A wireless sensor network approach to monitor process temperature in composting heaps, Part II: Thermocouple Thermometers.	National Seminar on sustainable Development: Recent Trends in Meeting the Challenges, NSSD 2012, Kottayam, India, Jan 2012.	National	2012
89	B. Siva Prasad, Mathews M. John, M. Atul Govardhan, Kannan Ramaswamy, P. Sankar Ganesh.	Rapid assessment of persistent organic pollutant, Sulfamethoxazole in aquatic ecosystems, using surface Plasmon resonance based biosensors.	National on conservation and management of wetland ecosystems, LAKE 2012, Mahatma Gandhi University, Nov 2012.	National	2012
90	S. V. S. S. Vamsi Krishna, R. Sunil Kumar, E. Vaishnavi, S. Sushma, R. B. Adusumalli, S. Dinda, I. Sreedhar, P. Sankar Ganesh	Treatment and disposal of municipal solid waste in third world countries: A critical review.	National on Environment and Biodiversity New Delhi, India, Dec 2012.	National	2012
91	B. Siva Prasad, P. Sankar Ganesh	'Flipped Teaching: Insight, Interpretation and Feasibility in the Indian Scenario.	ISTE 42 <sup>nd</sup> Annual Convention. Hyderabad, India. Dec 2012.	National	2012
92	Ananth Saradhi, Rakhee, P. Sankar Ganesh	A wireless sensor network approach to monitor process temperature in composting heaps, Part I: Routing Protocols.	International on Mobile Internet Devices, Hyderabad, India, Dec 2010	International	2010
93	K. Naga Mohan	Genetically modified embryonic stem cells as models to investigate the role of altered epigenetic machinery in the	on Effective and Ethical Stem Cell Therapeutics, Organized by KIMS Foundation and Research Center, Hyderabad, 23 Feb, 2014.	National	2014



		development of neuro-psychiatric disorders.			
94	K. Naga Mohan	The search for epigenetic basis of Autism	Genomics and Proteomics Research, Organized by Select Bio, June 12-13, 2014, New Delhi	International	2014
95	K. Naga Mohan, G. Kavitha, S. Sonal, V. Bhavyasri, A.L. Beaudet and J.R. Chaillet.	Unusual DNA methylation signatures and transcriptional activity of the BCOR locus in the human active X chromosome	Keystone symposium on DNA Methylation, March 29-April 3, 2015, Keystone, Colorado.	International	2015
96	Sridev Mohapatra	The Molecular Biology of Plant-Microbial Interaction	Workshop on <i>Arabidopsis thaliana</i> , CCMB, Hyderabad, Oct.8-10.	National	2014
97	Debashree Bandyopadhyay	Cystine Functions cluster around similar micro-environment clusters from diverse protein crystal structures	European Biophysical Society Meeting (EBSA2015), Dresden Germany. 18 <sup>th</sup> to 22 <sup>nd</sup> July, 2015	International	2015
98	Akshay Bhatnagar and Debashree Bandyopadhyay	Microenvironment based functional preferences of Cystine residues in high resolution protein crystal structures	Indian Biophysical Society Meeting, February 14 <sup>th</sup> to 17 <sup>th</sup> , 2015, New Delhi, India	National	2015
99	Debashree Bandyopadhyay	Role of quantum chemistry to elucidate spectroscopic properties in material science	National on Nano and Functional Materials (NFM-2014), BITS-PILANI, Pilani Campus, INDIA, 7-8 Nov., 2014	National	2014
100	Sheik Saleem Pasha, Parvej Alam, Rajdeep Chowdhury, Debashree Banerjee, Nigam Rath, Inamur R. Laskar	Design and Syntheses of 'Aggregation Induced Emission' Active Cyclometalated Platinum(II) Complexes and their Biological Applications	IISER Mohali National Seminar on Crystallography, 28 <sup>th</sup> to 30 <sup>th</sup> March, 2014, IISER, Mohali, INDIA	National	2014
101	Debashree Bandyopadhyay	Role of Microenvironment in modulating structure and function of Cystine residues in high-resolution protein crystal structures	4th Annual International , Biotech 2014, 10th and 11th March, 2014, BITS-PILANI, Dubai Campus, Dubai (oral presentation)	International	2014
102	Debashree Bandyopadhyay	How is the rate of a chemical reaction regulated in biological systems? Study on acid-base reactions in high-resolution protein crystal structures	Annual Meeting of the Indian Biophysical Society, February, 7-10, 2014, Kolkata, India	National	2014



103	Akshay Bhatnagar and Debashree Bandyopadhyay	Role of Microenvironment in modulating structure and function of Cystine residues in high-resolution protein crystal structures,	Annual Meeting of the Indian Biophysical Society, February, 7-10, 2014, Kolkata, India	National	2014
104	Debashree Bandyopadhyay and M.S. Madhusudhan	Identification of Keratin residues that are crucial for filament formation	International on "Biomolecular Forms and Functions", 8-11 January, IISc. Bangalore, India	International	2013
105	Parva Sharma, Divya, E. Nivedita, Debashree Bandyopadhyay	Local unfolding of protein backbone conformation at DNA recognition sites: Characterization based on phi-psi map	International on "Biomolecular Forms and Functions", 8-11 January, 2013, IISc, Bangalore, India	International	2013

### 23. Details of patents and income generated

- A. Suman Kapur, Patent Application No. 961/Del/2008, "Anti Diabetic Herbal Extract from Chlorophytum Borivillianum", Office of Controller General of Patents Designs, and Trademarks, 2010 The Patent Office Journal No. - 17/2010,11311-11317.
- B. An automatic apparatus, kit and a method for rapid detection of urinary pathogens and susceptibility thereof to antimicrobial agents in a biological sample, Patent application No. 2783/DEL/2013
- C. Low Cost Point of Care Device for the detection of blood glucose levels, patent application no. 1646/DEL/2014
- D. Design patent application no. is 267834, dated 01-12-2014

### 24. Areas of consultancy and income generated

- A. PI: Suman Kapur, Title: Arogya Ghar: Health Care Delivery Program, Funding Agency: Sustainable Innovations, Virginia, USA, 6.0lacs
- B. PI: Suman Kapur, Title: Diabetes Mellitus: Reward Pathway and Energy Metabolism, Funding Agency: Indian Institute of Biotechnology, Hyderabad, 6.1lacs

### 25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

#### Universities visited: Prof. Suman Kapur

- Oct. 2009: King Faisal International Univ., sponsored by KAIST, Saudi Arabia
- October 2011: University of Tokyo, Tokyo, Japan, sponsored by CSI and DBT
- June 2012: Centre for Prostate Disease and Research, Washington, USA sponsored by BITS
- June 2012: Albert Einstein Medical Centre, New York, USA, sponsored by BITS
- University of Vienna, Austria, sponsored by CSIR and DBT





- Sept 2013: University of Lisbon, Portugal, sponsored by CSI and DBT
- March 2014: University of Sri Lanka, Colombo, Sri Lanka, sponsored by British High Commission
- April 2014: University of Kathmandu, Nepal, sponsored by HISP, India
- June 2014: Polish Academy of Sciences, Warsaw, Poland, sponsored by BITS
- June 2014: University of Southern California, Los Angeles, USA, sponsored by BITS
- July 2014: University of Michigan, East Lansing, USA, sponsored by BITS
- July 2014: University of South Florida, Tampa, USA, sponsored by BITS
- July 2014: University of Wisconsin, Madison, USA, sponsored by BITS
- July 2014: PACE University, New York, USA, sponsored by BITS
- Aug 2014: Florida International University, Miami, FL, USA, sponsored by BITS

**Prof. Swaminathan**

- Jun 26-28, 2013: NIH invitee as a dengue vaccine expert to participate in the “Consultation on Dengue Vaccines” in Maryland, USA. Sponsor: NIH
- Oct 31-Nov 6, 2012: Participation in the joint UT-THSTI symposium on “Spotlight on Diagnostics: from science to success” at the University of Turku, Finland; Sponsor: DBT, Govt. of India.
- Oct 31-Nov 2, 2010: WHO invitee as a dengue vaccine expert to participate in the WHO Meeting on Next Generation Dengue Vaccines & Diagnostics” at Atlanta, GA, USA. Sponsor, WHO, Geneva
- May 23-28, 2010: Indo-Finnish collaborative project review meetings at Universities of Turku and Helsinki, Finland. Sponsor: DBT, Govt. of India
- Sept 16-19, 2008: Indo-Finnish collaborative project proposal meeting at VTT Technical Research Centre of Finland, Finland. Sponsor: University of Turku, Finland.

**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

**Prof. Suman Kapur (*National Committees*)**

- Member Jury, B.M Birla B M Birla Science Prize-2015, Hyderabad, India
- Chairperson for the Institutional Committee for Ethics for Stem Cell Therapy and Research at the Global Medical Education and Research, Global Hospital, Hyderabad
- Member of the Institutional Human Ethics Committee at Lonza Pvt Ltd, Hyderabad
- Member Secretary for the Institutional Human Ethics Committee at BITS, Pilani, Hyderabad Campus
- Member of the Institutional Biosafety Committee at BITS, Pilani, Hyderabad Campus
- Member of “Scientific Panel for functional foods, nutraceuticals, dietetic products & other similar products” providing scientific opinions to the Food Safety & Standards Authority of India (FSSAI), FDA Bhawan, Kotla Road, New Delhi, India



- Member of Working Group II for functional foods, nutraceuticals, dietetic products & other similar products” providing scientific opinions to the Food Safety & Standards Authority of India.
- Member, Steering Committee for National Guidelines on, Minimum Standards of Sanitation for Disaster Relief and National Guidelines on Minimum Standards of Water for Disaster Relief, under the aegis of National Disaster Management Authority, Delhi, India
- Member Jury, Young Scientist Ranbaxy Science Scholars-2008 Ranbaxy Science Foundation, New Delhi, India
- Member Selection Committee, Commonwealth Scholarships, MHRD, GOI, ND.
- Member, Project Review Committee, ICMR, New Delhi, for group on Type 2 Diabetes
- Member, Project Review Committee, ICMR, New Delhi, for group on Pancreatitis

**Prof. Swaminathan (National Committees)**

- Member, Scientific Advisory Group, Centre for Bio-Design, Translational Health Science and Technology Institute (THSTI), Department of Biotechnology, since 2013.
- Member, Inter Disciplinary Research Committee (IDRC) to review grant applications under DBT’s Rapid Grant for Young Investigators (RGYI) programme (2010-2013)
- Member, Academic Council, Jawaharlal Nehru University, New Delhi (2011-2013).

**Dr. K. Naga Mohan (National committee)**

- Member, Stem Cell and Regenerative Medicine, DBT Task Force, Govt. of India

**Prof. Suman Kapur (International Committees)**

- Member Selection Committee for King Faisal International prize for Science, King Faisal Foundation, Saudi Arabia
- Member Selection Committee for King Abdullah Discovery Scholarships (KAUST), King Abdullah University, S. Arabia

**Prof. Suman Kapur (Editorial Boards and Reviewer for Scientific Journals)**

- Editorial board member for Journal of Tropical Agricultural Science (JTAS)
- Member Board of Editors, Internet Journal of forensic Medicine and Toxicology.
- Reviewer for International journals such as Eye (Nature Publications), BIOMARKERS, USA & National journals e.g. IJBB, IJCB, Cell & Tissue Research, etc

**Dr. Jayati Ray Dutta (Editorial Board member)**

- Journal for Advanced Research in Applied Sciences, since Nov, 2013.

**Dr. Sankar Ganesh (Editorial board member)**

- Editor-in-Chief, GSTF Journal of Biosciences, 2011.



- Reviewer, “Fuel” Elsevier, 2011.

### **Membership in Professional Bodies:**

#### **Prof. Suman Kapur**

##### **National**

- Association of Clinical Biochemist in India (ACBI)
- Indian Immunology Society (IIS)
- Indian Academy of Neuro Sciences (IANS)
- Society of Biological Chemists (SBC)
- Indian Psychiatry Society (IPS)
- Research Society for Studies in Diabetes in India (RSSDI)
- Society for DNA fingerprinting

##### **International**

- Research Society for Alcoholism (RSA)
- International Society for Biomedical Research in Alcoholism (ISBRA)
- European Society for Biomedical Research in Alcoholism (ESBRA)
- Society for Neuroscience (SFN)
- Asian Society for Biomedical Research in Alcoholism (ASBRA)

#### **Dr Jayati Ray Dutta**

- Member of Biotech Research Society
- European Federation of Biotechnology

### **27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level.

Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.



For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

Faculty has attended various refresher, orientation & training programs such as:

Faculty Training Program on Teaching Learning Methodologies conducted by Teaching Learning Centre, Centre for Continuing Education, Indian Institute of Madras, Chennai Innovation, that redefines our tomorrow organized by Millenium Alliance, Technology Development Board, Department of Science & Technology, Government of India, FICCI and USAID , Delhi.

Workshop on Benchmarking, Strategy and Performance Improvement conducted by Dr. Kevin Downing, Director, Knowledge Enterprise and Analysis, City University of Hongkong, Delhi

Accountability and responsiveness in scientific organization conducted by Academy of Human Excellence in collaboration with DBT, Government of India

Staff training conducted by the university, e.g. hands-on-training on Algal Biofuels: cultivation, harvesting and oil extraction, Intensive teaching training workshop, 100 years of activated sludge process and its application to industrial wastewaters and CETPs in India and Zero Liquid Discharge – adaptability and impact on chemical, pharmaceutical and bulk drug industries, etc.

## 28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects**  
100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.
- **percentage of students doing projects in collaboration with other universities /industry / institute**  
100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

## 29. Awards / recognitions received at the national and international level by Faculty:

**Dr Suman Kapur**

Mentor of the GYTI award winning team

(2015)



Photon Research Award	(2015)
Mentor of the ABLE's DBT-sponsored BEST award	(2014)
Honored as an "Achiever" in the field of Education by the Institute of Chartered Accountants of India	(2014)
BITSAA Faculty Honors	(2014)
Adjunct Professor at Malkolak Knowledge Centre,	(2013 onwards)
Adjunct Professor at George Washington University	(2013 onwards)
Shri B. K. Birla and Shrimati Sarla Birla Chair Professor	(2011-2016)
Adjunct Professor at Albert Einstein College of Medicine	(2009 onwards)
Lalor Foundation Fellow, USA	(1990-1992)
ICAR, Junior Research Fellow	(1977-1980)
NCERT (NSTS) Fellow	(1974-1983)

#### Prof. Swaminathan

OPERA award, BITS Pilani University (2015)  
 Service Commendation Award, Northwestern Univ., USA (1993).  
 Senior Research Fellowship, CSIR, Government of India (1985-1987).  
 Best Presentation Award at the symposium on "Lens Metabolism in Relation to Cataract Formation", NIN, Hyderabad, India (1987).  
 Junior Research Fellowship, CSIR, Government of India(1983-1985).  
 The Jayashree Kannan Memorial Gold Medal (1st rank in M. Sc. Examinations, Osmania University, Hyderabad, India (1981).

#### Dr. Naga Mohan Kommu

OPERA award, BITS Pilani University (2015)

#### **Doctoral / post-doctoral fellows**

- Srinivasa Rao Vulichi Sensing the non-sense with AMPK: An emphasis on its role in metabolic harmony, presented at Symposium on Experimental Pharmacology and Role in Drug Development held on 14 - 15 November, 2014 at Sri Padmavathi Educational Institutions, Tirupathi,India. (**Best paper award**)
- Sai Chinmayi Jillellamudi, Sruthi Varier, Suman Kapur, Regulatory Micro RNAs Regulated by Macro Environment, to be presented at the International Conference on Emerging trends in Science & Technology Impact on Environment & Society for inclusive growth, held at AISECT University, Mendua, Bhojpur, M.P., India from 14-15th Feb 2014 (**Best paper award**)
- Padmavathi D.V and Suman Kapur, "Sarcosine as a biomarker for extra-capsular prostatic disease" presented at Int. Conference on Emerging trends in Biomarker Research: Prospects and Challenges held at Hyderabad, India from 13th to 14th September 2013. (**2nd best paper award**)



- Anuradha Pal, Shashwat Sharad, Suman Kapur, “OPRM1 gene mutations and glucose homeostasis”, presented at the International OMICS meeting held in Hyderabad from Sept 24th to 27th 2012. **(Best paper award)**
- Punita Manga, Shivani Gupta and Suman Kapur, Bioremediation of Morpholine containing Industrial Waste Water, presented at Go Green symposium held at Birla Institute of Technology Science (BITS-Pilani), Hyderabad Campus, Hyderabad, on 1st April 2012 **(Best paper award)**
- Sita Ramyasree Uppada. Best Poster Presentation Award in the International Conference on advances in Chemical Engineering (ICACE - 2013), NIT, Raipur, April, 5-6, 2013.
- Sita Ramyasree Uppada: Special Jury Award for oral presentation on “Lipase mediated ester synthesis from different lactic acid bacteria through co-culture technique in the International Conference on Biodiversity, Bioresources and Biotechnology, Mysore, India, Jan 30-31, 2014.

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**  
**Symposia/Workshops organized**

Conferences / International teaching and Training workshop organized

1. WIGH 2015 held from 7th January to 16th January 2015 at Hyderabad campus

- The program was inaugurated on the 8.1.15 by Padamshree Dr. K. SubbaRaou, Director Research, KIMS and KMERF, Hyderabad.
- 37 participants (with four from PACE University, New York, USA)
- 33 resource persons including faculty from BITS Pilani, Hyderabad campus, Pace University, USA, Apollo Hospitals, Hyderabad, Apollo Institute of Medical Sciences and Research, Hyderabad, Delhi University, New Delhi, Medicit Institute of Medical Sciences, The George Institute of Global Health and Central Research Institute for Unani Medicine.
- Two full day intensive workshops in Healthy living
- The program ended with a valedictory function graced by Prof. V. S. Rao, Director BITS Pilani, Hyderabad Campus.

2. WIGH 2014 held from 17th to 25th January 2014 at Hyderabad campus

- The program was inaugurated on the 17.1.14 by Dr. C Venkata S Ram, Director Blood Pressure Clinics, Apollo Hospitals, Hyderabad.
- 20 participants (with three from Albert Einstein College of Medicine, New York, USA)
- 22 resource persons including faculty from BITS Pilani, Hyderabad campus, University of Southern California, USA, Center for Prostate research, Washington, USA, Apollo Hospitals, Hyderabad, Apollo Institute of Medical Sciences and



Research, Hyderabad, HISP India, New Delhi and Delhi University, New Delhi, Medicti Institute of Medical Sciences, The George Institute of Global Health, Public Health Foundation of India, Hyderabad and Central Research Institute for Unani Medicine.

- Two full day intensive workshops in Health information Systems
- One full day intensive workshop in SMART Goal setting
- The program ended with a valedictory function graced by Prof. V. S. Rao, Director, BITS Pilani, Hyderabad Campus.

1. BITS Pilani Golden Jubilee National Symposium on Human Diseases, March 15-16, 2014, Training for GOI health professionals in Health Information Systems Management (26th to 28th September 2013)

- The program was inaugurated by Dr. S.K Agarwal, Director, BITS Goa campus, on 26.9.13
- 28 GOI health professionals from 08 states attended the training
- 05 resource persons including faculty from BITS Pilani, Hyderabad campus, HISP India, and IIT Delhi, India

5. SIGH-2013: (24th June to 6th July)

- The program was inaugurated on 24.6.13 by Prof. K. E Raman,
- 13 participants (with three students from Albert Einstein College of Medicine, New York, USA)
- 11 resource persons including faculty from BITS Pilani, Hyderabad campus, AECOM, USA, Medanata, Medicity Hospital, Health care Initiatives, Chandigarh, Helix institute of Public Health, Mumbai
- Participants earned 3 credits towards a 12-credit Certificate Program in Global Health offered by AECOM

6. WIGH-2013: (2 Jan to 12th Jan 2013)

- The program was inaugurated on the 2.1.13 by Dr. K. C Reddy, Chairman, REEMAP and Vice Chairman, REECAP, Hyderabad
- 31 participants ((with four students from Albert Einstein College of Medicine, New York, USA)
- 18 resource persons including faculty from BITS Pilani, Hyderabad campus, AECOM, USA, University of Pittsburgh, USA, Center for Prostate research, Washington, USA, HISP India, New Delhi and ICMR, New Delhi, Medicti Institute of Medical Sciences and Care Hospital, The George Institute of Global Health and Public Health Foundation of India, Hyderabad.
- 2 day intensive workshops in Health information Systems and Microyoga
  - Participants earned 3 credits towards a 12-credit Certificate Program in Global Health offered by AECOM



- The program ended with a valedictory function graced by Prof. G. N. Rao, Chairman, LV Prasad Eye Institute, Hyderabad

**31. Code of ethics of research folled by the Department.**

Department follows code of ethics specified by Institute.

**32. a) Student profile programme-wise:**

Name of the Programme (refer to question no. 4)	Applications Received	Selected		Pass percentage	
		Male	Female	Male	Female
M. Sc Biological Sciences	14662 (2010-11) 12880 (2011-12) 15714 (2012-13) 15120 (2013-14) 18717 (2014-15)	19 21 21 16 24	15 08 09 07 0	100%	
M. E Biotechnology	(2010-11) 4571 (2011-12) 4825 (2012-13) 5549 (2013-14) 5172 (2014-15)	3 1 2 0 1	4 8 7 8 7		
Ph. D	(2010-11)425 (2011-12) 461 1173 (2012-13) 964 (2013-14) 773 (2014-15)	6 5 5 0 0	6 1 4 1 2	0 0 0 1 1	1 1 0 3 3

**33. b) Diversity of students**

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.E	5	20	75	0
Ph. D	0	60	40	0

**34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

CSIR NET-7  
SET  
GATE-14





### 35. Student progression

Student progression	Percentage against enrolled*
UG to PG	15
PG to M.Phil./MS	50
PG to Ph.D.	70
Ph.D. to Post-Doctoral	100
Employed	
☐ Campus selection	85
☐ Other than campus recruitment	15
Entrepreneurs	01

\*This is the approximate data given. The department does not maintain the records for this.

### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	9
from other universities within the State	0
from universities from other States, from universities outside the country	91

### 37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

Zero (Nil)

### 38. Present details of departmental infrastructural facilities with regard to

- Library: Institute has a central library facility with around 888 books related to the area of biological sciences.
- Internet facilities for staff and students all students and staff have access to internet
- Students' laboratories: The department has six dedicated laboratories
- Research laboratories: The department has seven dedicated research laboratories

### 39. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university: 01 doctoral fellow
- from other institutions/universities: 02 post-doctoral fellows



**40. Number of post graduate students getting financial assistance from the university.100%**

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

All campuses run the same degree programmes and no new programmes have been introduced in recent years. The Institute has very close ties with industry and industry experts are party to new curriculum development and all curriculum revisions.

**42. Does the department obtain feedback from**

- **Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes. Meetings are held on a regular basis, especially, for courses that involve a large student body in multi sections; these meetings address the overall progress and pace of the lectures, standard of evaluation components including quizzes, assignments, tests, student performance, class averages, etc.

In addition, the student-faculty, Course Committees, provide an avenue to compile the feedback of the students about the course content, delivery of the lectures by the faculty, adhering to the prescribed course handout (topics), frequency and standard of evaluation components etc. Overall, the above activities facilitate a continuous feedback ensuring the highest quality of teaching and evaluation practises.

- **Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes. Institute, in every semester, conducts a thorough and comprehensive feedback on the following: Quality and standard of lectures by the faculty (ii) Course content and structured design for the course/s (iii) Teaching content and pedagogy (iv) Professional conduct of the faculty (v) Evaluation methods and practices followed by the faculty to ensure effective fair and impartial teaching-learning-evaluation processes

- **alumni and employers on the programmes offered and how does the department utilize the feedback?**

The institute as a whole has strong ties with both the alumni and employers through divisions such as “Alumni affairs” and “Placements” respectively. These divisions are active in incorporating feedback from these areas into the academic programmes and programmes.



**43. List the distinguished alumni of the department (maximum 10).**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

The Department constantly takes strong initiatives in enriching the student/faculty learning experience outside the classroom. The initiatives include;

- Weekly seminars by eminent invited scientists, faculty and students from various departments of the institute (through the biological sciences association, "Synapsis", which is a student body with a faculty co-ordinator).
- Research retreats
- National and international workshops/summer & winters schools/conferences (such as the annual event "Winter Institute of Global Health, in collaboration with Pace University, New York, USA)
- Visits and training programmes in industry and research institutes for students and faculty through university and industry immersion programmes and practice school program of the University
- Visits by faculty to foreign universities for both conferences and visits

**45. List the teaching methods adopted by the faculty for different programmes.**

Class room and laboratory courses are offered by the department. These include set of compulsory and electives courses. The methods include effective pedagogical approaches such as power point lectures, demonstrations, hands-on experience, inter-campus technology driven "Telepresence" lectures. In addition there is also another interaction in the form of Tutorials to address the questions and doubts on the topics discussed during the lectures held in the week. The teaching philosophy of BITS-Pilani University strongly believes in and encourages active learning by way of interactions, feed-back, continuous upgradation of teaching pedagogy, team learning, project based learning, etc.

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The department conducts regular meetings to assess situations and takes feedback from the faculty members on many issues related to programme objectives and learning outcomes. Regular meetings of student-faculty committees ensure that regular feedback is taken from students and are also incorporated in teaching practices adopted by faculty. For this purpose, student-faculty committees have been established which consist of



representations from faculty members as well as students. Student feedback forms an important part of faculty performance appraisals.

**47. Highlight the participation of students and faculty in extension activities.**

BITS-Pilani has a deep rooted culture of extension activities and our department is also an integral part of the institute's extension activities. There are many community development activities and initiatives in which our students are involved, especially through such organizations as SCIO, NIRMAN, INACTUS, NSS, etc. These organizations are involved in several extension and outreach activities involving underprivileged children, women, senior citizens and projects dealing with education, relief work, adult literacy, health services, etc.

**48. Give details of "beyond syllabus scholarly activities" of the department.**

Several "beyond the syllabus activities" are conducted by the department to enhance the academic experience of students and faculty. These include weekly seminars (through the departmental association, SYNAPSIS), guest lectures, field trips, industry visits, etc. As mentioned earlier, the department also conducts research retreats, national and international workshops/summer & winters schools/conferences industry/ research institutes) visits for students and faculty, visits by faculty to foreign universities and guest lectures by industry experts.

**49. State whether the program/department is accredited / graded by other agencies? If yes, give details.**

Not Applicable

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied**

The department is extremely active in research activities and each faculty member has procured research funding for projects in the various thrust areas of the department. Individual PIs are regularly publishing their work in high impact factor journals. The department has also generated national and international patents. Data pertaining to faculty publications, sponsored research projects, patents, consultancy etc., have been listed in items 1-10.



**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths:</b> Highly talented and motivated faculty with strong extramural funding, active research teams, publications. Large student pool comprising of 5 year M.Sc (Hons) (Biological Sciences), ME (Biotechnology) and Ph.D. students.</p>	<p><b>Opportunities:</b> Augment inter/multi-disciplinary approach ; Initiate New degree programs; Hiring highly qualified, talented faculty; Intensifying industry consultancy; Increased publications in highly <u>reputed</u> journal ; Attract self-sponsored research scholars (fellowship holders, CSIR/INSPIRE) Ph.D. aspirants</p>
<p><b>Weaknesses:</b> relatively young department, addressing constraints in research infrastructure and space, need to diversify research areas into cutting-edge and more inter-disciplinary fields, need to increase research collaborations nationally and internationally. Limited Inter/multi-disciplinary (Integrated) approach for funding; Very low Industrial consultancy; Limited access to journals, etc; Limited funding for research scholars after completion of projects.</p>	<p><b>Challenges:</b> Publications in open-access journals (financial constraints); Admitting more students in the Ph.D. program and providing financial assistance; Quality of students; Teaching related activity (load), relatively young department, some constraints in research infrastructure and space, need to diversify research areas into cutting-edge and more inter-disciplinary fields, need to increase research collaborations nationally and internationally</p>

**52. Future plans of the department.**

- Increasing the faculty talent pool, introducing new courses, especially pertaining to “Work Integrated Learning Programmes” for working professionals
- Introducing new programmes in core and inter-disciplinary areas
- Enhancing research programmes through sponsored research, publications and patents, enhancing undergraduate and post-graduate research,
- Strengthening industry linkages, etc.
- Start 3 year integrated post B.Sc ME degree program;
- Increase number of Ph.D. students to 40-50.
- Promote inter-disciplinary research

**53. Any other information regarding your dept. which you would like to include.**

The department of biological sciences at BITS-Pilani Hyderabad Campus is a young department, established in 2008. Nonetheless, our department has attained success in



almost all spheres of academia, in line with the aims and objectives of BITS-Pilani University. As highlighted above, we have established a strong research culture, replete with sponsored funding, publications and patents in the designated thrust areas and are constantly striving towards enhancing our research programmes through individual and collaborative contributions. We have been successfully running M.Sc. (Hons.), M.E. and Ph.D. programmes in the department, making the department a preferred destination for several graduate and undergraduate students across the country. We have also established strong industry linkages and are presently working towards strengthening these and establishing more.



## HYDERABAD Campus: Evaluative Report of the Department CHEMICAL ENGINEERING

1. **Name of the Department:** Chemical Engineering
2. **Year of establishment of the Department:** 2008
3. **Is the Department part of a School/Faculty of the university:**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
  - B.E. (Hons.) Chemical Engineering.
  - M.E Chemical Engineering.
  - Ph.D.
5. **Interdisciplinary programmes and departments involved:**
  - Minor in Materials Science and Engineering
  - Departments involved: Chemical, Mechanical, Physics, Chemistry.
6. **Courses in collaboration with other universities, industries, foreign institutions.**  
Courses related to B. Tech Process Engineering in association with Dr. Reddy Laboratories, Hyderabad  
Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons** No
8. **Examination System.** Semester wise and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments Course**
  - Thermodynamics (BITS F111) offered by Dept. of Mechanical Engineering
  - Composite Materials and Design (ME F452) by Dept. of Mechanical Engineering
  - Process Control and Instrumentation (AAOC C321) by Dept. of Electronics and Instrumentation



**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	NA	NA
Associate Professors		2	2
Asst. Professors		6	6
Others (Lecturer -M.Tech)		1	1

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./M.Phil Students guided for the last 5 years
Prof. I. Sreedhar	1. B.Tech. : NIT Warangal, Telangana 2. M.Tech: IIT Delhi 3. Ph.D. : BITS Pilani, Pilani Campus	Associate Professor	Process Development	21	2 (guiding)
Prof. Srikanta Dinda	1.B.Sc. Chemistry: Vidyasagar University, WB 2.B.Tech.: Calcutta University 3.M.Tech.: Calcutta University 4.Ph.D. : IIT Kharagpur	Associate Professor	Petroleum Engineering	8	1(guiding)
Dr. D. Purnima	1.B. Tech :Osmania University, Hyderabad 2.M.Tech: Osmania University, Hyderabad 3.Ph. D. : IIT Delhi	Assistant Professor	Polymer Science and Technology	11	1(guiding)
Dr. Krishnamurthy Balaji	1.B.Tech.: CECRI, Karaikudi, Tamilnadu	Assistant Professor	Electro Chemical	13	1(guiding)





	2.Ph.D: Univ. of South Carolina, USA		Engineering		
Dr. Ramesh Babu Adusumalli	1. B. Tech: Osmania University, Hyderabad 2. Master of Science, University of Applied Sciences, Germany 3. Ph.D. University of Natural Resources and Applied Life Sciences (BOKU), Austria.	Assistant Professor	Pulp & Paper Technology	09	2 (guiding)
Dr. Karthik Chetan. V	1. B.E. : University Of Mysore, Karnataka 2.M.S.: University Of Utah, USA 3.Ph.D. : McMaster University, Canada	Assistant Professor	Material Science and Engineering	12	1 (guiding)
Dr. Asma Ahmed	1. B.Tech. : Osmania University, Hyderabad 2.Ph.D: Oklahoma State University, USA	Assistant Professor	Bio-Chemical Engineering	09	3 (guiding)
Dr. Vikranth Kumar Surasani	1.B.Tech: R.V .College of Engineering, Bangalore. 2.M.E: Otto von Guericke University, Germany. 3. Ph.D: Otto von Guericke University, Germany	Assistant Professor	Mathematical Modelling and Simulation	7	1 (guiding)
Mrs. Lakshmi Sirisha	1. B.Tech, University of Mumbai. 2. M.Tech, UDCT, Mumbai.	Lecturer	Bio-Chemical Engineering	6.5	

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors? NIL

13. Percentage of classes taken by temporary faculty–programme-wise information? nil

14. Programme-wise Student Teacher Ratio

- BE Chemical- 16:1
- ME Chemical (started in 2015-16)

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

	Sanctioned	Filled
Technical		4
Administrative		1



**16. Research thrust areas as recognized by major funding agencies.**

Major Thrust Areas	
1	Separation Processes
2	Material Science and Nano Materials
3	Polymer Science and Technology
4	Reaction Engineering and Catalysis
5	Mathematical Modelling and Simulation
6	Biochemical Engineering
7	Fuel Cells and Batteries
8	Paper and Pulp Technology
9	Petroleum Engineering

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

Total number of projects received from National agencies : 9  
 Total number of projects received from International agencies : 0  
 Total number of projects received in last five years : 9

**Completed projects:**

S. No	Project Name	Principal Investigator*	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Reducing ruthenium crossover in Direct Methanol fuel cells	Dr. Balaji Krishnamurthy / Dr. Ramesh Babu Adusumalli	Aditya Birla group (BITS-Pilani)	12	2011-2014
2	Increase in Productivity of monoclonal antibody by upstream process optimization	Dr. Asma Ahmed	Aryogen Biopharma, Iran	4.55	2013-14

\* including Co-investigator

**Ongoing projects:**

S. No	Project Name	Principal Investigator*	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Development of Synthetic Resin Product.	Prof. Srikanta Dinda	DST	22	2013-16



2.	3-D Printer Filaments that are Biomaterial-Based and Eco-Friendly.	Dr.Karthik Chethan.V	BIRAC	34	2014-16
3.	Biofuels from lignocellulosic biomass waste: Biosolubilization and biomethanation of lignin.	Dr. Asma Ahmed	DST	24.1	2014-17
4.	Bioconversion of Coal Rejects to Biogas and Humic Acid.	Dr. Asma Ahmed (Ardee Hitech Pvt. Ltd, Vizag)	BIRAC	6 (44.5)	2015-16
5.	Nano-scale Characterization of Human Hair Fibres by using Indentation Technique.	Dr. Ramesh Babu Adusumalli	DST	26.62	2014-17
6.	Studies on CO <sub>2</sub> Capture from Flue Gases using Regenerable Solid Adsorbents.	Prof. Srikanta Dinda/Dr. Saunak Roy	CSIR	~ 24	2015-18
7.	Characterization of Fibre / Matrix interface in Advanced Composites.	Dr. Ramesh Babu / Dr. Karthik Chethan (Dr. N. Jalaiah)	ASL (DRDO)	9.96	2015-16

\*Including Co-Investigator

## 18. Inter-institutional collaborative projects and associated grants received

### National collaboration

Dr. Asma Ahmed is having a collaborative project with Ardee Hitech Pvt. Ltd, Vizag and supported by BIRAC. Title of the project: Bioconversion of Coal Rejects to Biogas and Humic Acid.

b) International collaboration: No

## 19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Total grants received: Nil

## 20. Research facility / centre with

- state recognition : NO
- national recognition: NO

## 21. Special research laboratories sponsored by / created by industry or corporate bodies NIL



## 22. Publications:

S. No.	Details	Specify number here
1.	Number of papers published in peer reviewed journals (national / international)	27 (+50 conference publications)
2.	Monographs	1
3.	Chapters in Books	4
4.	Edited Books	1
5.	Books with ISBN with details of publishers	(1+4+1) =6
6.	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	25
7.	Citation Index – range / average	(0-19) /2.3
8.	SNIP	0.85
9.	SJR	0.75
10.	Impact Factor – range / average	0 – 6 (1.9)
11.	h-index	4

**Details of the publications as per the number give above (Give details in the last five years)**

SI No	Authors	Title of the Publications	Details of the Journal	National/ International	Year
1	Prof. Sreedhar I.	A Journey into the Process and Engineering Aspects of Carbon Capture Technologies.	Renewable and Sustainable Energy Reviews	International	2015
		Kinetics of solid acid catalyzed toluene nitration using incremental identification method	Reaction Kinetics, Mechanisms and Catalysis.	International	2015
		Polymer Induced Turbulent Drag Reduction using Pressure and Gravity Driven Methods	The Korean Journal of Chemical Engineering	International	2014
		Optimal Process Conditions in Zeolite Catalyzed Acylation of Anisole	Kinetics and Catalysis	International	2014
		Nanoindentation of Bleached and Refined Pulp fibres	International Journal of Materials Engineering Innovation	International	2014



SI No	Authors	Title of the Publications	Details of the Journal	National/ International	Year
		Scientific Advances in Sulfuric Acid free Nitration of Toluene.	Catal. Sci. & Technology	International	2013
		Treatment and Disposal of Municipal Solid Waste in Third world Countries: A Critical Review	NeBIO journal-A Journal of Environment and Biodiversity	National	2012
		Kinetic studies on vapor phase pyridine synthesis and catalyst regeneration studies	The Can. J. Chem. Eng.	International	2011
2	Dr. Ramesh Adusumalli	Nanoindentation of Bleached and Refined Pulp Fibres	International Journal of Materials Engineering Innovation	International	2014
		Natural Fibre Reinforced Polymer Composites for Automotive Applications.	Polymer Society	National	2013
		Characterisation of Lyocell and Flax Single Fibres and their Nonwoven Composites	GRP mission News & Views	National	2012
		Deformation of the compound middle lamella in spruce latewood by micro-pillar compression of double cell walls	Journal of Materials Science	International	2012
		Treatment and Disposal of Municipal Solid Waste in Third world Countries: A Critical Review.	NeBIO journal-A Journal of Environment and Biodiversity	National	2012
3	Dr. D. Purnima	Natural Fibre Reinforced Polymer Composites for Automotive Applications	Polymer society	National	2013
4	Dr. Balaji Krishnamurthy	A mathematical model to study Capacity fading in Lithium ion Batteries-Formation and Dissolution reactions.	Journal of Electrochemical Society	International	2015



SI No	Authors	Title of the Publications	Details of the Journal	National/ International	Year
		An empirical model to study capacity fading in lithium ion batteries	International journal of Electrochemistry	International	2015
		Modelling the effect of potential drop across the SEI layer on the capacity fading in Lithium Ion Batteris	Electrochimica Acta	International	2015
		A Generalized Mathematical model to understand the capacity fading in lithium ion batteries-Effects of solvent and lithium transport	Journal of Electrochemical Science and Engineering	International	2015
		Nanoindentation of Bleached and Refined Pulp Fibres	International Journal of Materials Engineering Innovation	International	2014
		A capacity fade model for lithium ion batteries including diffusion and kinetics	Electrochimica Acta	International	2012
5	Prof. Srikanta Dinda	Development of Ketonic Resin by Polymerization Reaction: A critical review	Polymer	International	2015
		Development of Synthetic Ketonic Resin	Chemical Engineering Communications	International	2015
		Development of Solid Adsorbent for Carbon Dioxide Capture from Flue Gas	Separation and Purification Technology	International	2013
		Treatment and Disposal of Municipal Solid Waste in Third world Countries: A Critical Review	International journal of environment & biodiversity, NeBIO	International	2012
6	Dr. Vikranth Kumar Surasani	CFD Analysis of Effects of Surface Fouling on Wind Turbine Airfoil Profiles	<a href="#">International Journal of Energy and Power Engineering</a>	International	2015



SI No	Authors	Title of the Publications	Details of the Journal	National/ International	Year
		Geophysical monitoring and reactive transport modeling of bioclogging processes induced by leuconostoc mesenteroides	Geophysics	International	2014
		Bioclogging and Permeability Alteration by L. mesenteroides in a Sandstone Reservoir: A Reactive Transport Modeling Study	Energy and Fuels	International	2013

Conference publications:

S.N O	Authors	Title	Details of the Conference	National /Internat ional	Year
1	Chandrakala Kunchi, Karthik Chetan, Ravi C.Gundakaram, Ramesh Adusumalli	Nanoindentation studies on Human Hair Fibres.	National Conference on Advanced Materials for Defence and Aerospace Applications	National	Dec. 22nd, 2014
2	Manne Ashish, Sharat Chandra, S. Dinda, R.B. Adusumalli.	Analysis of CO and PM during incineration of Municipal Solid Waste	CHEMCON 2014, Punjab University, Chandigarh	Internat ional	27-30 Dec.2014
3	R.B. Adusumalli, Bipin Chakravarthy, K.Shantanu, S.Dinda.	Analysis of Wood Pulp After Cooking and Bleaching	CHEMCON 2014, Punjab University, Chandigarh	Internat ional	27-30 Dec.2014
4	Rohit Puntambekar, P. Madhuri, S. Dinda, R.B. Adusumalli.	Delignification of Heartwood and Sapwood.	Indo- US Conference on Advanced Lignocellulosic Biofuels, IICT Hyderabad	Internat ional	Nov.10-11, 2014
5	S. Burlawar, Preetam Giri, R.B. Adusumalli.	Characterization of Wood Species: Teak, Neem, Rubber and Mesquite	ICE-2013, BITS-Pilani Hyderabad Campus, Hyderabad, India	National	15-16 November, 2013
6	M. Sehgal, A. Mahajan, R.B. Adusumalli.	Characterization of Vegetable oils using Gas Chromatography	ICE-2013, BITS-Pilani Hyderabad Campus, Hyderabad, India	National	15-16 November, 2013



7	R.B. Adusumalli.	Characterisation of Natural fibres for Composite applications	National Conference on Recent Advances in Composites (NCRAC 2012). Hyderabad, India	National	June15-16, 2012,
8	R.B. Adusumalli.	Micro and Nanomechanics of Wood, Pulp and Cellulose Fibres	Wood is Good: Current Trends and Future Prospects in Wood Utilization, Bangalore, India	International	Nov. 21-23, 2014,
9	R.B. Adusumalli.	Understanding Fibre-Matrix bonding in Natural fibre reinforced Composites used in Wind Energy Applications	International Conference on Wind Energy: Materials, Engineering and Policies (WEMEP 2012), BITS Pilani, Hyderabad Campus.	International	22 – 23 November 2012,
10	M. Ashish, R.B. Adusumalli.	Energy from Municipal Solid Waste with Universal Input: Indian scenario.	<b>ICE-2013</b> , BITS-Pilani Hyderabad Campus, Hyderabad, India	National	15–16 November, 2013.
11	Srikanta Dinda, Prakash Purswani, Bhavana Vijay, R. B. Adusumalli,	Development of Bio-Based Polymer from Nahor Oil.	<b>CHEMCON-2014</b> , Punjab University, Chandigarh, India	International	27-30 Dec.2014
12	Appala Naidu U, Karthik Chethan V, Srikanta Dinda,	Polymerization Studies of Ketonic Resin.	<b>CHEMCON-2014</b> , Punjab University, Chandigarh, India	International	27-30 Dec.2014
13	Appala Naidu Uttaravalli, Srikanta Dinda, P. K. Jogi, Sirisha N, Rama Krishna M,	Development of Empirical Model for the Prediction of Cement Property Based on Laboratory Data,	<b>CHEMCON-2013</b> , IICT Mumbai India	International	27–30 December 2013,
14	Srikanta Dinda, R Vijay, Palak Puri,	Epoxidation of Nahor Oil by In Situ Generated Peroxyacetic Acid	<b>CHEMCON-2013</b> , IICT Mumbai India	International	27–30 December 2013,
15	Srikanta Dinda, Nihit Bandaru, Radhev Paleti.	Development of Epoxide Material from Vegetable Oil	<b>ICCBPE-2013</b> , NIT Warangal, Hyderabad, India	National	16–17 November <b>2013</b> ,





16	Srikanta Dinda,	Refinery Configuration Overview: Past, Present and Future	<b>ICE-2013</b> , BITS-Pilani Hyderabad Campus, Hyderabad, India	National	15-16 November, 2013.
17	Sirisha Nallakukkala, Appala Naidu U, Chandrika V, Srikanta Dinda,	Study of Drying Characteristics of a Granular Material	<b>ICE-2013</b> , BITS-Pilani Hyderabad Campus, Hyderabad, India	National	15-16 November, 2013.
18	Palak Puri, R. Vijay, Srikanta Dinda.	Development of Bio-Based Epoxide	<b>ICE-2013</b> , BITS-Pilani Hyderabad Campus, Hyderabad, India	National	15-16 November, 2013.
19	Srikanta Dinda	Experimental Simulation of Olefin Selectivity of refinery FCC Unit Using Laboratory and Pilot Scale Units	<b>TechnoSCAPE 2013</b> , VIT University, Tamil Nadu, India	National	22-23 August <b>2013</b>
20	Srikanta Dinda, Ritesh Bindal.	Epoxidation of Neem Oil by In Situ Generated Peroxyacetic Acid	<b>CHEMCON-2012</b> , Jalandhar, India	International	27-30 December <b>2012</b>
21	Srikanta Dinda, Narayan C. Pradhan, Anand V. Patwardhan	Development of Synthetic Resin	<b>CHEMCON-2011</b> , Bangalore, India;	International	27-29 December <b>2011</b> .
22	Asma Ahmed	Upstream Process: Navigating the Roadblocks to Process Robustness	Future Biotech India 2013, Hyderabad,	International	25-26 July, 2013
23	D. Purnima, G. Nischay Kaushik, D. Anup Kumar	Crystallization and Impact Behavior of Coir based Hybrid composites of Polypropylene	MACRO 2014	International	July'14
24	D. Purnima, D. Anup Kumar V. Kiran Kumar	Hybrid composites of polypropylene : Coir and mineral reinforcing agent as fillers	9th IUPAC International Conference on Novel materials and their Synthesis & 23rd International Symposium on Fine Chemistry and Functional Polymers	International	17 - 22 October, 2013



25	D.Purnima , V. Kiran Kumar, K Sirisha Devi,Vijayalakshmi and B.Rajam	Studies on the Effect of Coir Content on the Mechanical Properties of Polypropylene in Coir based Polypropylene Composites	The Asian International Conference on Materials , Minerals and Polymers, MAMIP 2012	International	2012
26	D.Purnima, Jigyasa Kapoor	Coupling agents used in natural fibre reinforced Polypropylene Composites	Conference on Technological Advancements in Chemical and Environmental Engineering	National	23- 24 March, 2012
27	D.Purnima , Ruheena	Polymer Composites used in making Windmill Turbine Blades	Indo - Danish International Conference On Wind Energy: Materials, Engineering and Policies (WEMEP - 2012)	National	November 22 - 23, 2012
28	D. Purnima, Ruheena Ansari	Production of polymers from agricultural waste	Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE)	International	23- 24 March, 2012
29	Lakshmi Sirisha P & Dr. Asma Ahmed	A Study on Solid State Fermentations of Sugarcane Bagasse using Different Fungi	International Conference on Emerging Trends in Biotechnology (ICETB 2014)	International	6-9 November, 2014
30	I.Sreedhar, K.S.Reddy, K.V.Raghavan	Reaction Calorimetry in the Intrinsic studies of zeolite Catalyzed Toluene Mononitration	<b>CHEMCON 2010</b> , Annamalaiagar, India.	National	27-30 December, 2010
31	I.Sreedhar, Manvendra Singh, Arun Tomar.	Applications of CFD in Chemical Engineering	National Conference on Recent Advances in Chemical Engineering (RACE)	National	4th Feb. 2012.



32	I.Sreedhar, Manvendra Singh	Recent Advances in Water Treatment	National Conference on Water Purification Technologies and Management ( <b>InDACon 2012</b> ), Mumbai	National	8-9, Feb 2012
33	S.V.S.S. Vamsi Krishna,R. Sunil Kumar,E. Vaishnavi,S.Sushma,R.B . Adusumalli, S.Dinda, I.Sreedhar, P.Sankar Ganesh	Treatment and Disposal of Municipal Solid Waste in Third world Countries: A Critical Review	National Conference on Environment & Biodiversity of India, New Delhi	National	29-30 December, 2012
34	I.Sreedhar, Akhila Gollakota,Harini Kantamaneni	Process Standardization of zeolite catalyzed Acylation of Anisole	International Symposium& 65 <sup>th</sup> Annual Session of IChE 1.in association with International Partners <b>CHEMCON 2012</b> , Jalandhar, India	International	27-30, December, 2012.
35	T.Dhanunjay Singh, B.Sreenivasulu, I.Sreedhar	A Review on Solid Oxide Fuel Cells-A Key to Noise free Power Generation	<b>ICE-2013</b> , BITS-Pilani Hyderabad Campus, Hyderabad, India	National	15-16 November, 2013.
36	I.Sreedhar, B.Sreenivasulu, K V Raghavan	Greener Approaches and Challenges in Acylation of Anisole	International Symposium &66 <sup>th</sup> Annual Session of IChE in association with International Partners <b>CHEMCON 2013</b> , Mumbai, India	National	27-30, December 2013.
37	Gautam Jain, I. Sreedhar	Studies on Turbulent Drag Reduction using Polymer Additives	<b>ICCBPE 2013</b> , NIT Warangal, Hyderabad,India.	International	Nov,2013
38	B. Sreenivasulu, D. Gayatri, I. Sreedhar, K V Raghavan	Carbon Capture by Chemical Looping Combustion-A Critical review on Research Status and Challenges	<b>ICCBPE 2013</b> , NIT Warangal, Hyderabad	International	Nov, 2013
39	Y. Kirti kishan, Ch, Pradeep I.Sreedhar	Production of Biodiesel from Rice Bran Oil and	International Symposium& 67 <sup>th</sup>	National	27-30, December



		Ethanol Catalyzed by Calcium Oxide	Annual Session of IChE in association with International Partners <b>CHEMCON 2014</b> , Chandigarh		2014
40	D. V. Gayatri, B.Sreenivasulu, I. Sreedhar	Multiphase kinetics of Zeolite Catalyzed Toluene Nitration	International Symposium & 67 <sup>th</sup> Annual Session of IChE in association with International Partners <b>CHEMCON 2014</b> , Chandigarh	National	27-30 December 2014
41	P. Suresh, P. Dinesh Kumar, I. Sreedhar, Vikranth Kumar Surasani, K.V. Raghavan	A Shift from Batch to Continuous Granulation in Pharmaceutical Industry- Challenges Ahead	International conference on New Dimensions in Chemistry and Chemical Technologies- Applications in Pharma Industry, <b>IST, JNTU</b> Hyderabad	International	June 2014
42	B Sreenivasulu, I. Sreedhar, K V Raghavan Mahipal Reddy	High Temperature Carbon Capture using of Limestone doped with Flyash	SusChemE International conference, <b>ICT Mumbai</b>	International	Oct. 2015
43	Trishishi Raychoudhary, V. K. Surasani	Retention of surface modified-NZVI particle in porous media and its implication: Assessment with the help of 1-D transport model	7th International Conference on Porous Media and Annual Meeting, 2015. Padua, Italy	International	18-21, May, 2015
44	Sashank Srinivasan, V. K. Surasani,	CFD Analysis of Effect of Surface Fouling on Wind Turbine Airfoil Profiles	International Conference on Energy Systems and Developments 2015	International	11-13, February, 2015
45	Suresh P. V. K. Surasani	Population Balance Modeling of Continuous Fluid Bed Wet Granulation of API	<b>CHEMCON-2014</b> , IChE, Chandigarh, India	National	27-30 December, 2014



46	Suresh P.,Dinesh Kumar P, I. Sreedhar, V. K. Surasani, K. V. Raghavan	A Shift from Batch to Continuous Granulation in Pharmaceutical Industry-Challenges Ahead	International conference on New Dimensions in Chemistry and Chemical Technologies-Applications in Pharma Industry, IST, JNTU Hyderabad	International	June 2014
47	Yiwei Cheng, Nicholas Bouskill, Christopher G. Hubbard, Susan S. Hubbard, Jonathan B. Ajo Franklin, Li Li, Anna L. Engelbrekton, John D. Coates, V. K. Surasani.	Understanding Microbial Reservoir Souring and Desouring Processes Using Reactive Transport Modeling	American Geophysical Union (AGU) Fall meeting 2013, San Francisco, CA.	International	Dec.,2013
48	S. S. Hubbard, L. Li, V. K. Surasani, C. Hubbard, Y. Wu, J. B. Ajo-Franklin, N. Bouskill J. Coates	Mechanistic modeling and advanced monitoring of microbially enhanced hydrocarbon recovery and souring processes	4th International Symposium on Applied Microbiology and Molecular Biology in Oil Systems,Rio de Janeiro ,Brazil.	International	25- 28 August 2013
49	Karthik Chethan	Development of Bio-based Composites for Bioplastics, Foundry and Encapsulation Applications	International Conference on Wind Energy: materials, Engineering and Policies (WEMEP 2012)	International	November 22-23, 2012
50	Karthik Chethan	Development of Bio-based formulations for electrospinning in obtaining Nanofibers	TEQUIP work shop "Fundamentals and Applications of Nanofibers" in IIT Hyderabad	National	July 2014

**23. Details of patents and income generated: NIL**

**24. Areas of consultancy and income generated**

S. No	Name of the Faculty	Title	Income generated
1.	Dr.Asma Ahamed (2013-14; Aryogen Biopharma, Iran)	Increase in productivity of Monoclonal antibodies by upstream processes optimization	4.45 lakhs
2.	Dr. Ramesh Babu Adusumalli / Dr. Karthik Chethan (Dr. N. Jalaiah) (ASL/DRDO, 2015)	Characterization of Fibre / Matrix interface in Advanced Composites	9.96 lakhs (ongoing)



**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**

- Dr. Ramesh Babu Adusumalli visited EMPA – Materials Science and Technology, Thun, Switzerland as a visiting scientist (15.05.11– 16.07.11)
- Dr. Vikranth Kumar Surasani visited Aditya Birla Science and Technology Company (ABSTC) Private Ltd., Mumbai (19.05.15– 16.07.15)

**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

- Prof. I. Sreedhar, Member of Academic Board of JNTU Hyderabad
- Prof. I. Sreedhar, Member of Academic Board of Osmania University, Hyderabad
- Prof. I. Sreedhar, Member of Academic Advisory Board of MVGR Engg College (Autonomous), AP
- Dr. Ramesh Babu Adusumalli, Member in Board of studies for Chemical Engineering Department, Chaitanya Bharathi Institute of Technology (CBIT), Gandipet (Autonomous), Hyderabad

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes. The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level. Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

Apart from this following faculty attended various workshop for professional growth.

- Dr. Balaji Krishna murthy visited GE Bangalore for two months (May-July 2014) as part of the Industry immersion program.
- Dr. D. Purnima attended the 8<sup>th</sup> Summer School on Petroleum Refining & Petrochemicals, Gurgaon (Newdelhi), 3<sup>rd</sup>-7<sup>th</sup> June 2013.
- Dr. Asma Ahmed was granted BITS CORE project along with Dr. Srikanth Mutnuri



from Goa campus (45 lakhs) in 2014. Title of the project: Treatment of Nitrogenous Waste using Microalgae and its Utilization for Production of Biofuels and Other Value Added Products

- Prof. Srikanta Dinda, Dr. Ramesh Adusumalli, Dr. Vikranth Surasani, Dr. Asma Ahmed and Dr. Balaji Krishnamurthy were received Research Initiation Grant (RIG) from BITS Pilani (2 lakhs each).

## 28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects**

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.

- **percentage of students doing projects in collaboration with other universities /industry / institute**

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

## 29. Awards / recognitions received at the national and international level by

### Faculty:

- Prof. Srikanta Dinda received Honeywell-UOP certified graduate award on Fluid Catalytic Cracking Technology, 2008.
- Prof. Srikanta Dinda received Silver Medal from Vidyasagar University, 1998.
- Prof. I. Sreedhar received Merit scholarship in B.Tech for being Topper of all disciplines in first year
- Prof. Vikranth Surasani received Max-Buchner-Dechema (Germany) scholarship (2006-07).

### UG Students:

1. DAAD (German academic exchange service) summer fellowship was granted to Mr. Nikunj Dudani (Summer 2012) and to Mr. A. Sai Darshan (Summer 2015)
2. Ms. Niteesha Devulapally, another third year student has bagged the opportunity to do an internship at the University of Alberta Edmonton, Canada, through the MITACS Globalink Program in summer 2015.
3. Mr. Srivastan Ramesh received B.V. Raju Memorial Award for Outstanding Student from BITS Pilani Hyderabad campus. He received a certificate and a cash prize of Rs. 2500 from Indian Institute of Chemical Engineers (IICHE-HRC) (July 2015).



**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

S. No	Title of conference	Outstanding participants	Sources of funding
1	GREEN2012-Race to Innovation, 01.04.2012	Mr. Vijay Chari, Dr. Surendra, Mr. Pradeep Palelli	SPC Biotech Private Limited, Fusion Coatings (CIPY), Mauka
2	Innovations in Chemical Engineering, ICE 2013, Nov. 15-16, 2013	Dr. Vijay Kumar Saraswat, Shri. K. Murali, Dr. Ranjan Patnaik, Prof. K. Kesava Rao.	CSIR, Indian Oil, Agilent Technologies, Dr. Reddy's Laboratories, Spectralab Instruments Pvt. Ltd., Shell Technology Centre Bangalore, The India Cements Limited, Metrohm India Limited, TA Instruments, AP Pollution Control Board, State Bank of Hyderabad, Ramky group and Ultratech Cement, etc.
3	Advanced Materials for Defence and Aerospace Applications, AMDA 2014, 22 <sup>nd</sup> Dec. 2014	Prof. C.N.R Rao, Dr. G. Sundar Rajan, Shri M. Narayana Rao.	BITS Pilani

**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.

**32. Student profile programme-wise:**

Name of the Programme (refer to question no. 4)	Applications Received	Selected		Pass percentage	
		Male	Female	Male	Female
BE Chemical Engg (2010-11)	14662	27	09	100	100
BE Chemical Engg (2011-12)	12880	43	12	100	100
BE Chemical Engg (2012-13)	15714	32	22	100	100
BE Chemical Engg (2013-14)	15120	53	09	100	100
BE Chemical Engg (2014-15)	18717	44	12	100	100
Ph.D. (2012-13)	1173	01	---	100	100
Ph.D. (2013-14)	964	02	03	100	100
Ph.D. (2014-15)	773	03	02	100	100





### 33. Diversity of students

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
ME Chemical Engineering	25	00	75	00

### 34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

We do not capture this data through any formal process

### 35. Student progression

Student progression	Percentage against enrolled*
UG to PG	10 %
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed <ul style="list-style-type: none"> <li>• Campus selection</li> <li>• Other than campus recruitment</li> </ul>	80% 10%
Entrepreneurs	NIL

\*This is the approximate data given. The department does not maintain the records for this.

### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	10
from other universities within the State	00
from universities from other States, from universities outside the country	90



**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period - NO**

**38. Present details of departmental infrastructural facilities with regard to**

- a) Library - Institute has a central library facility with around 500 books related to the area of chemical engineering.
- b) Internet facilities for staff and students – Yes, available in all laboratories
- c) Students' laboratories :

Our labs are equipped with state-of-the-art special purpose equipment's for liquid processing, solid-liquid handling, absorption, adsorption, environmental research, cooling tower, heat exchangers, distillation setup, process control equipment, mixing units, sedimentation unit, environmental pollution analytical instruments, reactors (batch, CSTR, and PFR) a wide range of modern analytical measurement equipment, and computers with Chemical Engineering software (ASPEN, MATLAB and LABVIEW etc). Heat Exchanger Training Set-up (parallel/counter flow, shell & tube), Plug flow reactor, Fluidized Bed dryer, Natural Draft Tray Dryer, High Volume Sampler, Water bath shaker, Process Control (pH, Flow, Temperature, pressure) are few to name. There are two laboratory courses (Chemical Engineering Lab-I and Chemical Engineering Lab-II) which covers experiments from all the core courses of chemical engineering. Following laboratories are used for teaching purpose.

- Chemical Reaction Engineering lab
- Petroleum lab
- Transport Phenomena lab
- Selected Chemical Engineering Operations lab
- Environmental Engineering lab
- Process Control lab

**d) Research laboratories**

Our students do a wide variety of research projects opting them as Laboratory Project and First Degree Thesis. Some of the major equipment in various laboratories are Gas Chromatography, Fixed and Fluidized Reactor, Fermenters, BOD incubator, UV Visible Spectrophotometer (Double beam), Ion Analyzer, Humidity Chamber, Optical Microscope (10X, 40X, 100X), High Pressure Reactor, Bomb Calorimeter, Autoclave, Hot Air Oven, Muffle Furnace, Dryer with Digital Weighing Balance (0.1 mg) and 500 liter capacity Reverse Osmosis plant.



### 39. List of doctoral, post-doctoral students and Research Associates

- a) from the host institution/university : NO
- b) from other institutions/universities

1. Post-doctoral students: 0

2. Doctoral and Research associates are given below: 12\*

S. No.	Name	Category	Supervisor	Topic of Research
1	Mr. B. Sreenivasulu	Doctoral	Prof. I. Sreedhar	Kinetics and Engineering of Carbon Capture by Chemical Looping Combustion
2	Mr. Pathi Suresh	Doctoral	Prof. I. Sreedhar /Dr.Vikranth Surasani	Experimental and Modeling Studies of Continuous Wet Granulation
3	Mrs. P. Madhuri	Doctoral	Dr. Ramesh Adusumalli / Dr. Asma Ahmed	Study of Pulp Characteristics after Cooking and Bleaching for optimization of Process parameters
4	Mrs. K. Chandrakala	Doctoral	Dr. Ramesh Adusumalli / Dr. Karthik Chethan	Mechanical Characterization of Human Hair Fibers
5	Mrs. Madhavi	Doctoral	Dr. Balaji Krishnamurthy	Modelling of Fuel Cells
6	Ms. S. Aparna	Doctoral	Dr. D. Purnima	Polymer blends and Composites
7	Mr. Abhilash K. Tripathi	Doctoral	Dr. Asma Ahmed	Evaluation of anaerobic digestion as a technique for conversion of lignin and its derivatives to biogas and humic acid
8	Mr. U. Appala Naidu	Doctoral	Prof. Srikanta Dinda	Polymerization and Kinetic studies of Ketonic resin synthesized by Environmentally friendly method
9	Ms. P. Ardra	Research Associate	Dr. Karthik Chethan. V	3D Printer filaments that are biomaterial based and eco-friendly
10	Ms. N. Jyothi	Project Fellow	Dr. Asma Ahmed	Treatment of Nitrogenous Waste using Microalgae and its utilization for Production of Biofuels and other value added products
11	Mr. Rijul Nayani	Project Fellow	Dr. Ramesh Adusumalli	Characterization of Fibre/Matrix interface in Advanced Composites
12	Ms. Anima Sharma	Project Fellow	Dr. Asma Ahmed	Bioconversion of Coal Rejects to Biogas and Humic Acid.

\*includes project fellows

### 40. Number of post graduate students getting financial assistance from the university:

All students (08)



**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Before introducing M.E Chemical Engg, feedback was taken from alumni and other stakeholders. It is also discussed during advisory committee visit in Aug.2013 in which Prof. M.S Anath and Prof. S.K. Gupta suggested one year thesis option. After discussing within four campuses of BITS Pilani (CcDCA), M.E program with one year thesis and one year course work was approved by senate.

Similar exercise was done to introduce Minor in Materials Science and Engineering. Inputs from Industry, Placement officer and all faculty members working in four different departments (Chemical Engineering, Mechanical Engineering, Physics, Chemistry) were taken after three rounds of discussions. It is also discussed in recent curriculum review meeting (09.09.2015) led by Prof. Vilas Gaikar (ICT Mumbai), Prof. Pushpavanam (IIT Madras), Mr. Arvind Kaushik (Head Thermal Engineering Group, L&T) and Mr. P. V. Balaramkrishna (Joint General Manager & Head of Chemical Engineering Group, L&T).

**42. Does the department obtain feedback from**

- **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Feedback from faculty are taken on regular basis ex. Student-faculty council meeting and departmental meetings. Faculty also have access to contact faculty counterpart teaching same course in other campus. It will be used to change the text book or change the prerequisites or add the content, etc.

- **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Feedback from students is taken on regular basis ex. Student-faculty council meeting and meetings with Instruction division and HOD. It will be used to improve the teaching methodology or evaluation pattern and also to include the practical component such as case studies or introducing demo labs.

- **alumni and employers on the programmes offered and how does the department utilize the feedback?**

Feedback from alumni and employers are taken once in every semester through e-mail communication. Contacts of alumni are also taken from BITSAA global list. It will be used to float existing elective or add the new electives to the list and also to change the curriculum.



**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- Student undergo 7.5 months of industrial training in 2 phases (Practice School 1 & 2) supervised by industry expert and BITS faculty
- Experts from Industry and academia are invited frequently to deliver the talks (details are given below in section 48)
- Students are also given free access to conferences run by the department.

**45. List the teaching methods adopted by the faculty for different programmes.**

- For the Master program, 40 % of the evaluation components are in the form of open book/take-home assignment. To complete this, students should be involved either in lab activities or simulation activities or read the review article from the reputed journal and present it in a simplified form. For ME program, we follow one year course work and one year dissertation (thesis). It is also possible to run the entire course through Telepresence facility (One faculty will be delivering classes to students present in all four campuses).
- For the bachelor program, labs are conducted after finishing the theory course. Students will do labs for core courses in two phases namely CEL 1 and CEL 2. CEL stands for Chemical Engineering Labs and CEL 1 includes Fluid Mechanics, Heat Transfer, Separation Processes I, Engineering Chemistry and CEL 2 includes for Separation Processes II, Kinetics & Reactor Design, Process Dynamics & Control.
- For courses in Minor program and for electives lectures are delivered in class room through power point or black board followed by case studies, demo labs, introduction of demo softwares.
- Courses for B.Tech Process Engineering are run through dedicated software supported video lecture facility exists in our campus.

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

We have student-faculty council meetings twice in semester in which five students of each class and two faculty members teaching that particular class are involved. Feedback is also taken from students after finishing their Practice School-2. Beginning of the course, faculty explains the course objectives using course handout. Student performance is evaluated continuously (three tests and other evaluation components) for each course.



**47. Highlight the participation of students and faculty in extension activities.**

There are many social organizations actively working on campus like NIRMAAN, NSS, YUVA (Youth under visionary action), HOPE and SIRI (society involved in reinventing India on campus). We have various events on campus like Cloth Donation, Tree Plantation, Blood Donation, Campus Clean Up programs, Career Planning, Medical Camps, Campus Tour for School Students.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

- a. Departmental faculty and students actively participates in conducting annual technical fest ATMOS every year in October. It includes technical quiz/games/workshop/paper presentation, etc.
- b. Every year students are given opportunity to visit local Industries. Recently our students visited Granules India Ltd., Hyderabad, Dr. Reddy’s Laboratories, Hyderabad, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad and Dupont Knowledge Centre, Hyderabad.
- c. These activities are monitored by Association of Chemical Engineering in which Faculty member and students are involved. Every year beginning and end of the semester we organize departmental gathering in which all students and faculty are participated.
- d. To broaden the student knowledge, department invites experts from industry and academia to deliver talks to our students. Recent talks are listed below.
  - Role of Chemical Engineers in Steel manufacturing Industry’ by Mr. D.S. Sastry, Ex-DGM, Vizag Steel Plant, 17/10/14
  - Challenges of Upstream Processing’ by Dr. Pradeep Narasimhan, Chief Technology Engineer at Shell Technology Centre, Bangalore,10/10/14
  - ‘Pulp and paper manufacturing and effluent treatment’ by Mr. Radhamohan, GM at Sirpur Paper Mills, Sirpur-Khagaznagar, 19/01/15
  - Synthesis of metal nanocomposites ‘ by Professor Sanjeev Kumar Gupta from IISc Bangalore, 27/02/15.
  - Environmental Protection Strategies in Oil and Gas Industry’ by Dr. Syed Naimathulla, Senior Environmental Engineer, Qatar Petroleum, 12/08/15
  - A Mathematical Model for Blood Clot Formation by Dr. Anand Mohan, Dept. of Chemical Engineering, IIT Hyderabad, Jan. 2011
  - Application of Chemical Engineering to Cement and Pharmaceutical industries by Prof. B. Pitchumani, Dept. of Chemical Engg, IIT Delhi, 19/09/13
  - Environmental Legislations and Role of Cleaner Production Technologies for Controlling Pollution by Dr. B. Madhusudhan Rao, Joint Chief Environmental Engineer, AP Pollution Control Board, 26/04/14



49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

Faculty and students are involved in conducting annual technical fest ATMOS. We have also conducted three conferences namely GREEN 2012 – Race to Innovation (2012), Innovations in Chemical Engineering (2013), Advanced Materials for Defence and Aerospace Applications (2014). Our faculty has also contributed in generating basic knowledge on modelling aspects in using software tools such as MATLAB, ASPEN, ANSYS, COMSOL, etc and electives such as Environmental Pollution Control. Department also contributed in generating applied knowledge to others by giving access to high end instruments such as Benchtop Fermenter, Thermax Boiler, Bubble cap distillation column, BET Surface area analyser, Gas Chromatography, Muffle furnace, Fixed and fluidized bed reactor, Rotary Microtome, Humidity Chamber, Potentiostat, Rheometer, Temperature bath (-20 to 200 °C), Autoclave (PARR reactor), Tray Fermenter, Rotary Pulp Digester, UV-Visible Spectrophotometer, Optical Microscope, Injection & Compression moulding, Ultrasonic processor.

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

<p><b>Major Strengths:</b></p> <ul style="list-style-type: none"> <li>• Competent and dedicated faculty members having Ph.D's</li> <li>• Very good quality B.E students admitted through BITSAT</li> <li>• Faculty-student interactions</li> <li>• Updated course curriculum (revised in 2011, reviewed in 2013, 2015)</li> <li>• Basic and applied research (diversity of faculty research specializations)</li> <li>• Interaction with industry (Placements, Projects PS1&amp;PS2, WILP courses)</li> </ul>	<p><b>Major weaknesses:</b></p> <ul style="list-style-type: none"> <li>• Attracting and retaining good quality PhD / Research scholars</li> <li>• Access to the high end Research facilities such as SEM, NMR, etc.</li> <li>• Though TBI exists, Knowledge transfer is still to takeoff</li> <li>• Industry-Academic collaboration need to be strengthened</li> </ul>
<p><b>Five Major opportunities and challenges:</b></p> <ul style="list-style-type: none"> <li>• Industrial, National &amp; International collaborations and projects through PS &amp; WILP collaborative Institutions and personal contacts</li> <li>• Inter-departmental and -institutional collaborations (43 departments in four campuses including economics and humanities)</li> </ul>	



- Faculty visits through Practice School, University Immersion and Industry immersion
- To organize training programs for working professionals (challenge)
- To motivate B.E and M. E students towards research (challenge)

**52. Future plans of the department.**

To continue the research and industry sponsored consultancy projects. To strengthen the existing programs and also to start new programs based on industry requirements.

**53. Any other information regarding your department which you would like to include.**

Though the department is only 7 years old, it is rapidly growing with state of the art laboratory infrastructure with all experimental and computational facilities. The department currently has nine young faculty members from diverse research areas like Reaction Engineering, Biochemical Engineering, Petroleum Engineering, Material Science, Batteries and Fuel Cells and Polymer Science & Technology, etc. At present department has lab equipments worth Rs. 3 crore and sponsored projects worth Rs. 2.5 crores. We are currently offering B.E (Hons.) Chemical Engineering with an intake of 60, M.E Chemical Engineering with an intake of 8 students. This current year, we have begun a Minor degree program in Materials Science and Engineering.

The department boasts of 85% placement record for four batches (2008-12; 2009-13; 2010-14; 2011-15) and rest 15 % have opted for higher studies or became entrepreneurs. Our B.E students have been placed in reputed companies such as Shell, Honeywell, etc. Our students are unique in two aspects. They undergo 7.5 months of industrial training in 2 phases (Practice School 1 & 2) supervised by BITS faculty. They also enroll in lab oriented project and/or thesis under faculty as a single course. Most of these outcomes are published as journal articles or conference proceedings. In 2014-15 academic year, students published more than 25 research articles and 7 students have done their 6 months thesis either at Campus or in association with R&D organizations. Currently 14 Research fellows are working in ongoing projects and many of them are registered for Ph.D. Our faculty are also involved in teaching courses for Industry Professionals under Work Integrated Learning Program (WILP).





## HYDERABAD Campus: Evaluative Report of the Department CHEMISTRY

1. **Name of the Department** : Chemistry
2. **Year of establishment of the Department** : 2008
3. **Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
  - Ph.D.
  - M.Sc. (Hons.) Chemistry
5. **Interdisciplinary programmes and departments involved :**  
Minor in Materials Science (with Mechanical, Chemical & Physics)
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**  
Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons** N.A.
8. **Examination System:** Semester wise and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments**  
Thermodynamics (BITS F112)(Chemical, Mechanical)
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	<b>Note:**</b>	03	03
Associate Professors		05	05
Asst. Professors		07	07
Others		None	None

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each



department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Manab Chakravarty	Ph. D.	Associate Professor	Organophosphonates	8	2 Ongoing
Amit Nag	Ph.D	Assistant Professor	Spectroscopy	6.5	1 Ongoing
K V G Chandra Sekhar	Ph.D	Associate Professor	Medicinal Chemistry	14	7 Ongoing
Ramakrishnan Ganesan	Ph.D.	Assistant Professor	Materials Chemistry	9	1 Ongoing
Krishnan Rangan	Ph.D	Associate Professor	Inorganic Chemistry	16	1 Ongoing
N.Rajesh	Ph.D	Professor	Environmental analytical chemistry	20	2 Completed 5 Ongoing
Jayanty Subbalakshmi	M.Phil, Ph.D	Associate Professor	Materials Chemistry	8	-
Durba Roy	Ph.D	Assistant Professor	Physical Chemistry, Computation.	7	-
Anupam Bhattacharya	M. Phil, Ph.D	Assistant Professor	Synthetic Organic Chemistry	10.5	3 Ongoing
Subhas Ghosal	Ph.D	Assistant Professor	Theoretical Chemistry	7.5	1 Ongoing
Sounak Roy	PhD	Assistant Professor	Material Chemistry, Catalysis	7.3	1 Ongoing
Balaji Gopalan	Ph.D.	Assistant Professor	Material Chemistry	10	1 Ongoing
K. Sumithra	Ph.D.	Associate Professor	Theoretical/Computational Chemistry	18	2 Ongoing

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors none**



**13. Percentage of classes taken by temporary faculty – programme-wise information** Zero

**14. Programme-wise Student Teacher Ratio**

MSc. (Hons.): 4:1 & Ph.D: 1:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual** Three

**16. Research thrust areas as recognized by major funding agencies:** Materials for Energy, Health and Environment

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects:**

Sl. No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Investigation on synthetic and catalytic reactions of unsaturated organophosphonates with oxaziridines	Manab Chakravarty	DST	19.93	2011-2014
2	Synthesis and Pharmacological Evaluation of Various Indole Analogues for the Treatment of Schizophrenia	K V G Chandra Sekhar	DST	18.28	2010-2013
3	Synthesis and Pharmacological Evaluation of Bishomo(hetero) arylpiperazines as atypical antipsychotic agents	K V G Chandra Sekhar	UGC	6.44	2011-2014
4	Study of the extraction behavior of chromium using various long chain amines and its application in the treatment of electroplating waste water	N.Rajesh	UGC	4.17	2007-2010
5	Chemically modified adsorbents for the preconcentration and separation of toxic heavy metal ions from industrial wastes and environmental samples	N.Rajesh	DST	22.51	2008-2011



6	Chemically modified polymeric sorbents for the removal and recovery of precious metal palladium from industrial waste	N.Rajesh	UGC	4.7	2012-2015
7	Optical and Semiconducting molecular materials based on tetrathiafulvalene, tetracyanoquinodimethane and their polymer templates	Jayanty Subbalakshmi	DST	22.25	2010-2014
8	Synthesis of some selected nitrogen based heterocycles as potential anti tubercular agents	Anupam Bhattacharya	DST	18.78	2010-2013
9	Adsorption and freezing of heteropolymers on disordered surfaces : a model for biomimetic recognition	K. Sumithra	DST	33.64	2011-2014

### Ongoing projects:

Sl. No.	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Finding Aggregation-induced emission active materials : design, synthesis and photophysical studies of sterically hindered triarylethenes and Tetraarylethenes	Manab Chakravarty	DST	38.38	2014-2017
2	Structure Based Rational Design and Synthesis of <i>Mycobacterium tuberculosis</i> inhibitors	K V G Chandra Sekhar	DST	22	2014-2017
3	Photocurable organic-inorganic hybrid precursors for the fabrication of metal oxide micro/nanostructures	Ramakrishnan Ganesan	DST	25.98	2013-2016
4	Development of suitably customized polymers and clay based adsorbents for the effective removal of chromium from e-waste,	N.Rajesh	DST	42.82	2013-2016
5	Laboratory investigation and field application towards the effective defluoridation of water using appropriately tailored sorbents	N.Rajesh	DST	26.67	2012-2016
6	Synthesis of modified TosMIC & BetMIC for use as key reagents in the synthesis of boronated heterocycles	Anupam Bhattacharya	CSIR	18.10	2013-2016
7	Ultracold chemistry in the early universe	Subhas Ghosal	DST	21.6	2012-2015
8	Investigation of the folding of Cysteine-rich Neurotoxins in Ionic Liquid by Molecular	Durba Roy	DST	Approved, Funds yet	2015



	Dynamics Simulation and Quantum Mechanical Calculations			to receive.	
9	Towards metalloneurochemistry inside a niosome : a fluorescence spectroscopy approach	Amit Nag	DST	24.98	2014-2017
10	Photocatalytic NO <sub>x</sub> abatement: From Mechanism and Materials Properties to Catalytic Performance	Sounak Roy	DST	24.48	2014-2017
11	Localization of polymer chains on chemically heterogeneous surfaces	K. Sumithra	CSIR	9	2013-2016
12	Investigation of magneto-optical effect in composite magneto-plasmonic nanostructures for sensing applications	Balaji Gopalan as (Co-PI)	DST	33.2	2013-2016
13	Investigation of magneto-optical effect in composite magneto-plasmonic nanostructures for sensing applications	Krishnan Rangan (Co-PI)	DST	33.2	2013-2016

## 18. Inter-institutional collaborative projects and associated grants received

### a) National collaboration

Sl. No.	Name of BITS faculty	Name of the collaborating institute	Project Title	Funding agency & amount
1	Manab Chakravarty	NISER Bhubneswar	Finding Aggregation-induced emission active materials : design, synthesis and photophysical studies of sterically hindered triarylethenes and Tetraarylethenes	DST 43.38 lakhs
2	K V G Chandra Sekhar	IICT, Hyderabad	Synthesis and Biological Activity of Various Triazoles as Effective Antifungal Agents	DBT 21.44

### b) International collaboration: NIL

## 19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received. DST-FIST (Total Grants received : Rs.1 Crore) (2014-2019)

## 20. Research facility / centre with

- state recognition : No
- national recognition: No
- international recognition No

## 21. Special research laboratories sponsored by / created by industry or corporate bodies: NIL



## 22. Publications:

SI No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	121
2	Monographs	0
3	Chapters in Books	2
4	Edited Books	0
5	Books with ISBN with details of publishers	NA
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	121
7	Citation Index – range / average	1.27
8	SNIP	1.17
9	SJR	1.37
10	Impact Factor – range / average	3.92
11	h-index	9.36

**Details of the publications as per the number give above (Give details in the last five years)**

SI No	Authors	Title of the Publications	Details of the Journal (page no & Vol)	National / International	Year
1	Verma, C. B.; Singh, A.; Pallikonda, G.; Chakravarty, M.; Quraishi, M. A.; Bahadur, I.; Ebenso, E. E	Aryl sulfonamidomethylphosphonates as new class of green corrosion inhibitors for mild steel in 1 M HCl: Electrochemical, surface and quantum chemical investigation	Journal of Molecular Liquids, 209, 306-319	International	2015
2	Pallikonda, Gangaram; Maloth, Swamy; Kurapati, Sathish Kumar; Baig, M. Zubair Khalid; Saraswathi, Akhil Raj Kumar; Ghosal, Subhas; Chakravarty, Manab*	New $\omega$ -ketovinyl phosphonates: inexpensive synthesis, isomerization studies and route for functionalized 1,3-butadienes	Tetrahedron, 71(34), 5538-5546.	do	2015
3	Pallikonda, Gangaram;	BuLi-triggered phospho-Brook	Tetrahedron Letters	do	2015



	Santosh, Ranga; Ghosal, Subhas; Chakravarty, Manab*	rearrangement: efficient synthesis of organophosphates from ketones and aldehydes	56(24), 3796-3798		
4	Pallikonda, Gangaram; Chakravarty, Manab*; Sahoo, Manoj K.	An easy access to $\alpha$ -aryl substituted $\gamma$ -ketophosphonates: Lewis acid mediated reactions of 1,3-diketones with $\alpha$ -hydroxyphosphonates and tandem regioselective C-C bond cleavage	Organic & Biomolecular Chemistry 12(36), 7140-7149.	do	2014
5	Pallikonda, Gangaram; Chakravarty, Manab*	Triflic acid mediated functionalization of $\alpha$ -hydroxyphosphonates: route for sulfonamide phosphonates	RSC Advances 3(43), 20503-20511.	do	2013
6	Pailloux, Sylvie L.; Rosario-Amorin, Daniel; Chakravarty, Manab; Camus, Jean-Michel; Smith, Karen Ann; Duesler, Eileen N.; Dickie, Diane A.; Paine, Robert T.; Klausmeyer, Kevin K.; Padron, Daniel A	Synthesis and Properties of New (Phosphinoylmethyl)Pyridine N-Oxides	Zeitschrift fuer Anorganische und Allgemeine Chemie , 639(7), 1101-1116.	do	2013
7	Pallikonda, Gangaram; Chakravarty, Manab,*	FeCl <sub>3</sub> -Mediated Arylation of $\alpha$ -Hydroxyphosphonates with Unactivated Arenes: Pseudo-Umpolung in Allylic Phosphonates	European Journal of Organic Chemistry (5), 944-951.	do	2013
8	Kona, Sridevi; Suresh, Ravi Rama; Chakravarty, Manab*; Chava, Venkata N. R.	Phosphine-free palladium-catalyzed direct C-3 arylation of 2-phenylimidazo[1,2-a]pyridine using silver(I) carboxylate	Journal of Chemistry , 305934, 7.	do	2013
9	Kona, Sridevi; Chava,	An efficient one-pot synthesis	Kona, Sridevi; Der	do	2012



	Venkata N. R.; Ravi, Rama Suresh; Ramu, Sridhar P.; Chakravarty, Manab	of carbazole-based $\alpha$ -aminophosphonates under solvent-free and catalyst-free conditions,	Chemica Sinica 3(3), 548-556.		
10	Chakravarty, Manab; Pailloux, Sylvie; Ouizem, S.; Smith, K. A.; Duesler, Eileen N.; Paine, Robert T.; Williams, Neil J.; Hancock, Robert D.	Synthesis and metal coordination chemistry of (phenyl)(pyridin-2-ylmethyl)phosphinodithioic acid, [2-C <sub>5</sub> H <sub>4</sub> N]CH <sub>2</sub> P(S)(SH)(Ph)	Polyhedron 33(1), 327-335	do	2012
11	Ramakrishnan Ganesan, Saman Safari Dinachali, Suhui Lim, M. S. M. Saifullah, Wee Tit Chong, Andrew H. H. Lim, Jin Jie Yong, Eng San Thian, Chaobin He, and Hong Yee Low	Direct nanoimprint lithography of Al <sub>2</sub> O <sub>3</sub> using a chelated monomer-based approach	Nanotechnology, Vol. 23, 315304	-do-	2012
12	Shreya Kundu, Ramakrishnan Ganesan, Nikita Gaur, M. S. M. Saifullah, Hazrat Hussain, Hyunsoo Yang, Charanjit S. Bhatia	Effect of angstrom-scale surface roughness on the self-assembly of polystyrene-polydimethylsiloxane block copolymer	Scientific Reports, Vol. 2, 617	-do-	2012
13	Saman Safari Dinachali, M. S. M. Saifullah, Ramakrishnan Ganesan, Eng San Thian, and Chaobin He	A universal scheme for patterning of oxides via thermal nanoimprint lithography	Advanced Functional Materials, Vol. 23, 2201–2211	-do-	2013
14	Je Moon Yun, Ramakrishnan Ganesan, Jae-Hak Choi and Jin-Baek Kim	Local pH responsive diazoketo-functionalized photoresist for multicomponent protein patterning	ACS Applied Materials & Interfaces, Vol. 5, 10253-10259	-do-	2013
15	Saman Safari Dinachali,	Large Area, Facile Oxide	ACS Applied	-do-	2013





	Jarrett Dumond, Mohammad S. M. Saifullah, Kwadwo Konadu Ansah-Antwi, Ramakrishnan Ganesan, Eng San Thian, and Chaobin He	Nanofabrication via Step-and-Flash Imprint Lithography of Metal–Organic Hybrid Resins	Materials & Interfaces, Vol. 5, 13113-13123		
16	Shreya Kundu, Su Hui Lim, Ramakrishnan Ganesan, Hazrat Hussain, Mohammad S. M. Saifullah, Hyunsoo Yang, Ghim Wei Ho, and Charanjit S. Bhatia	Tunable daughter molds from a single Si master grating mold	Journal of Vacuum Science and Technology B, Vol. 32(5), 051601	-do-	2014
17	H. K. Raut, S. S. Dinachali, Y. C. Loke, Ramakrishnan Ganesan, K. K. Ansah-Antwi, A. Góra, E. H. Khoo, V. A. Ganesh, M. S. M. Saifullah, S. Ramakrishna	Multi-scale ommatidial arrays with broadband and omnidirectional anti-reflection and anti-fogging properties by sacrificial layer mediated nanoimprinting	ACS Nano, Vol. 9, 1305–1314.	-do-	2015
18	Ravikiran Nagarjuna, Sounak Roy, and Ramakrishnan Ganesan	Polymerizable sol-gel precursor mediated synthesis of TiO <sub>2</sub> supported zeolite-4A and its photodegradation of Methylene blue	Microporous and Mesoporous Materials, Vol. 211, 1-8.	-do-	2015
19	Swapna Challagulla, Ravikiran Nagarjuna, Ramakrishnan Ganesan, and Sounak Roy	Role of solvents on photocatalytic reduction of nitroarenes by sol-gel synthesized TiO <sub>2</sub> /zeolite-4A	Journal of Porous Materials, Vol. 22, 1105-1110	-do-	2015
20	Ravikiran Nagarjuna, Swapna Challagulla, Navateja Alla, Ramakrishnan Ganesan, and Sounak Roy	Synthesis and characterization of reduced-graphene oxide/TiO <sub>2</sub> /Zeolite-4A: A bifunctional nano composite for abatement of methylene blue	Materials and Design, 86, 621-626	-do-	2015



21	Mahalakshmi Naidu, K., Rudresh Naik, G., Chandra Sekhar, K.V.G.	Design, synthesis and biological evaluation of 5-(2-(4-(substitutedbenzo[d]isoxazol-3-yl)piperazin-1-yl)acetyl)indolin-2-one and 5-(2-(4-substituted piperazin-1-yl)acetyl)indolin-2-one analogues as novel anti-tubercular agents.	Arab. J. Chem.	International	2015
22	Mahalakshmi Naidu, K., Nagesh, H.N., Singh, M., Sriram, D., Yogeeswari, P., Chandra Sekhar, K.V.G.	Novel amide and sulphonamide derivatives of 6-(piperazin-1-yl)phenanthridine as potent Mycobacterium tuberculosis H37Rv inhibitors.	Eur. J. Med. Chem. 2015, 92, 415-426.	do	2015
23	Nagesh, H.N., Suresh, N., Bhanu Prakash, G.V.S., Gupta, S., Rao, J.V., Chandra Sekhar, K.V.G.	Design, synthesis and biological evaluation of novel phenanthridinyl piperazine triazoles via click chemistry as anticancer agents.	Med. Chem. Res., 24, 523-532.	do	2015
24	Mahalakshmi Naidu, K., Suresh, A., Subbalakshmi, J., Sriram, D., Yogeeswari, P., Chandra Sekhar, K.V.G., Ragahavaiah.	Design, synthesis and antimycobacterial activity of various 3-(4-substituted sulfonylpiperazin-1-yl)benzo[d]isoxazole derivatives.	Eur. J. Med. Chem, 87, 71-78.	do	2014
25	Nagesh, H.N., Suresh, A., Sairam, S.D.S.S., Sriram, D., Yogeeswari, P., Chandra Sekhar, K.V.G.	Design, synthesis and antimycobacterial evaluation of 1-(4-(2-substitutedthiazol-4-yl)phenethyl)-4-(3-(4-substitutedpiperazin-1-yl)alkyl)piperazine hybrid analogues.	Eur. J. Med. Chem.,84, 605-613	do	2014
26	Nagesh, H.N., Suresh, N., Mahalakshmi Naidu, K., Arun, B., Sridevi,	Synthesis and evaluation of anti-tubercular activity of 6-(4-substitutedpiperazin-1-yl)	Eur. J. Med. Chem., 74, 333-339	do	2014



	J.P., Sriram, D., Yogeeswari, P., Chandra Sekhar, K.V.G.	phenanthridine analogues.			
27	Suresh, N., Nagesh, H.N., Renuka, J., Rajput, V., Sharma, R., Khan, I.A., Chandra Sekhar, K.V.G.	Synthesis and evaluation of 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(4-(2-(4-substituted piperazin-1-yl)acetyl)piperazin-1-yl)quinoline-3-carboxylic acid derivatives as anti-tubercular and antibacterial	Eur. J. Med. Chem., 71, 324-332.	do	2014
28	Suresh, N., Nagesh, H.N., Anil Kumar, Shirazi, A.N., Parang, K., Chandra Sekhar, K.V.G.	Synthesis of novel ciprofloxacin analogues and evaluation of their anti-proliferative effect on human cancer cell lines.	Bioorg. Med. Chem. Lett., 23 (23), 6292-6295.	do	2013
29	Nagesh, H.N., Mahalakshmi Naidu, K., Harika Rao, D., Sridevi, J.P., Sriram, D., Yogeeswari, P., Chandra Sekhar, K.V.G.	Design, synthesis and evaluation of 6-(4-((substituted-1H-1,2,3-triazol-4-yl)methyl)piperazin-1-yl)phenanthridine analogues as antimycobacterial agents	Bioorg. Med. Chem. Lett., 23 (24), 6805-6810.	do	2013
30	Chandra Sekhar, K.V.G., Rao V.S., Conrad W. D., Nagesh, H. N., Sreedhar Kumar, V., Divya Sridhar., Brust P., Murali Krishna M.	Synthesis, Preliminary in vitro and in vivo pharmacological evaluation of 4-{4-[2-(4-(2-substituted quinoxalin-3-yl)piperazin-1-yl)ethyl]phenyl}thiazoles as atypical antipsychotic agents.	Med. Chem. Res., 22 (4), 1660-1673.	do	2013
31	Chandra Sekhar, K.V.G., Rao. V.S., Tara Sasank, T. V. N. V., Nagesh, H.N., Suresh, N, Mahalakshmi Naidu, K., Suresh, A.	Synthesis of 3,5-diaryl isoxazoles under solvent-free conditions using iodobenzene diacetate.	Chin. Chem. Lett., 24 (12), 1045 -1048	do	2013
32	Chandra Sekhar, K.V.G., Vyas, D. R. K., H N	Pharmacophore Hypothesis for Atypical Antipsychotics.	Bull. Korean Chem. Soc., 33 (9), 2930-	do	2012



	Nagesh, Rao. V.S.		2936.		
33	Chandra Sekhar, K.V.G., Rao V.S., Kumar, D.	Synthesis of Triazolo Quinoxalines as Antitubercular Agents.	Bull. Korean Chem. Soc., 32 (8), 2657- 2660.	do	2011
34	Chandra Sekhar, K.V.G., Rao V.S., Conrad W. D., Satish Reddy A., Brust P., Murali Krishna M.	Design, Synthesis and Preliminary in vitro and in vivo pharmacological evaluation of 2-[4-[4-(Substituted thiazolyl)phenylethyl] piperazin-1-yl]-1,8- naphthyridine-3-carbonitriles as atypical antipsychotic agents	J. Enzyme Inhib. Med. Chem., 26 (4), 561- 568.	do	2011
35	Shivani Sharma, N. Rajesh,	Augmenting the adsorption of palladium from spent catalyst using a thiazole ligand tethered on an amine functionalized polymeric resin,	Chem. Eng. J. 283, 999–1008.	Internation al	2016
36.	Manasi, Vidya Rajesh, N. Rajesh,	An indigenous Halomonas BVR1 strain immobilized in crosslinked chitosan for adsorption of lead and cadmium,	Int.J. Biol.Macromol. 79, 300–308	Internation al	2015
37.	M. Barathi, A. Santhana Krishna Kumar, N. Rajesh,	Aluminium hydroxide impregnated macroreticular aromatic polymeric resin as a sustainable option for defluoridation	J. Environ. Chem. En 3, 630–641	Internation al	2015
38.	T. Sathvika , Manasi, Vidya Rajesh, N. Rajesh,	Microwave assisted immobilization of yeast in cellulose biopolymer as a green adsorbent for the sequestration of chromium	Chem. Eng. J. 279, 38–46	Internation al	2015
39.	A. Santhana Krishna Kumar, Shivani Sharma, R. Sudheer Reddy, M.	Comprehending the interaction between chitosan and ionic liquid for the	Int. J. Biol. Macromol. 72, 633- 639.	Internation al	2015



	Barathi,N.Rajesh	adsorption of palladium			
40.	Shivani Sharma, M.Barathi, N.Rajesh	Efficacy of a heterocyclic ligand anchored biopolymer adsorbent for the sequestration of palladium	Chem. Eng. J. 259 . 457-466.	International	2015
41.	M. Barathi, A.Santhana Krishna Kumar, Chinta Uday Kumar, N.Rajesh	Graphene oxide-aluminium oxy hydroxide interaction and its application for the effective adsorption of fluoride	RSC advances, 4 , 3711-53721.	International	2014
42.	A.Santhana Krishna Kumar, Chinta Uday Kumar, Vidya Rajesh,N.Rajesh,	Microwave assisted preparation of n-butylacrylate grafted chitosan and its application for Cr(VI) adsorption	Int. J. Biol. Macromol. 66, 135- 143.	International	2014
43.	Shivani sharma, N.Rajesh	2-mercaptobenzothiazole impregnated cellulose prepared by ultrasonication for the effective adsorption of precious metal palladium	Chem. Eng. J. 241, 112-121	International	2014
44	Manasi , Vidya Rajesh , N. Rajesh	Adsorption isotherms, kinetics and thermodynamic studies towards understanding the interaction between a microbe immobilized polysaccharide matrix and lead	Chem.Eng. J. 248, 342-351	International	2014
45.	B. Rajesh Kannan , S. Kalidhasan , A. Santhana Krishna Kumar , N. Rajesh, B. Harihara Venkataraman	An Integrated Use of Biopolymer-Ceramic Composites Towards Capacitor and Environmental Application	Polym. Plast.Technol.Eng. 53, 626-630	International	2014
46.	M. Barathi, A. Santhana Krishna Kumar, N.Rajesh	A novel ultrasonication method in the preparation of zirconium impregnated cellulose for effective fluoride	Ultrason. Sonochem. 21, 1090-1099.	International	2014



		adsorption			
47.	Manasi, Vidya Rajesh, A. Santhana Krishna Kumar, N. Rajesh	Biosorption of cadmium using a novel bacterium isolated from an electronic industry effluent	Chem. Eng. J. 235, 176-185	International	2014
48.	M. Barathi, A. Santhana Krishna Kumar, N. Rajesh	Efficacy of novel Al-Zr impregnated cellulose adsorbent prepared using microwave irradiation for the facile defluoridation of water	J. Environ. Chem. Eng 1, 1325-1335	International	2013
49.	A. Santhana Krishna Kumar, M. Barathi, Swetha Puvvada, N. Rajesh	Microwave assisted preparation of glycidyl methacrylate grafted cellulose adsorbent for the effective adsorption of mercury from a coal fly ash sample	J. Environ. Chem. Eng 1, 1359-1367.	International	2013
50.	A. Santhana Krishna Kumar, S. Kalidhasan, Vidya Rajesh, N. Rajesh	Adsorptive Demercuration by Virtue of an Appealing Interaction Involving Biopolymer Cellulose and Mercaptobenzothiazole	Ind. Eng. Chem. Res. 52, 11838-11849.	International	2013
51.	A. Santhana Krishna Kumar, Shruti Singh Kakan, N. Rajesh	A novel amine impregnated graphene oxide adsorbent for the removal of hexavalent chromium	Chem. Eng. J. 230, 328-337.	International	2013
52.	S. Kalidhasan, A. Santhana Krishna Kumar, Vidya Rajesh, N. Rajesh	Enhanced adsorption of hexavalent chromium arising out of an admirable interaction between a synthetic polymer and an ionic liquid	Chem. Eng. J. 222, 454-463.	International	2013
53.	A. Santhana Krishna Kumar, N. Rajesh	Exploring the interesting interaction between graphene oxide, Aliquat-336 (a room temperature ionic liquid) and chromium(VI) for wastewater treatment	RSC Advances, 3, 2697-2709.	International	2013



54.	Madhu P. Mamidala, Anupama Polinedi, Praveen K. PTV, Rajesh N, OmSai R. Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh,	Prenatal, perinatal, and neonatal risk factors of Autism Spectrum Disorder: A comprehensive epidemiological assessment from India	Research in International Developmental Disabilities, 34 (9), 3004-3013.	International	2013
55.	Madhu P. Mamidala, Anupama Polinedi, Praveen K. PTV, Rajesh N. OmSai R. Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh	Maternal hormonal interventions as a risk factor for Autism Spectrum Disorder: an epidemiological assessment from India"	Journal of Biosciences, 38 (5), 887 - 892	International	2013
56.	A.Santhana Krishna Kumar, Revathi Ramachandran , S. Kalidhasan , Vidya Rajesh, N. Rajesh	Potential application of dodecylamine modified sodium montmorillonite as an effective adsorbent for hexavalent chromium	Chem. Eng. J . 211-212, 396–405	International	2012
57.	A. Santhana Krishna Kumar, S. Kalidhasan, Vidya Rajesh, N. Rajesh,	A Meticulous Study on the Adsorption of Mercury as Tetrachloromercurate(II) Anion with Trioctylamine Modified Sodium Montmorillonite and Its Application to a Coal Fly Ash Sample,	Ind. Eng. Chem Res, 51 (35) 11312-11327.	International	2012
58.	A.Santhana Krishna Kumar, Timsi Gupta, Shruti Singh Kakan, S. Kalidhasan, Manasi, Vidya Rajesh, N. Rajesh	Effective adsorption of hexavalent chromium through a three centre (3c) cooperative interaction with an ionic liquid and biopolymer	J. Hazard. Mater. 239-240, 213-224.	International	2012
59	A. Santhana Krishna Kumar, S. Kalidhasan, Vidya Rajesh, N. Rajesh	Application of Cellulose-Clay Composite Biosorbent towards the Effective Adsorption and Removal of Chromium from Industrial Wastewater	Industrial and Engineering Chemistry Research 51, 58-69	International	2012



60.	S. Kalidhasan, A. Santhana Krishna Kumar, Vidya Rajesh, N. Rajesh	Preparation and Characterization of Crystalline Cellulose-Ionic Liquid Blend Polymeric Material: A Prelude to the Study of its Application towards the Effective Adsorption of Chromium	Journal of Colloid and Interface Science 367, 398-408.	International	2012
61.	S. Kalidhasan, A. Santhana Krishna Kumar, Vidya Rajesh, N. Rajesh	An efficient ultrasound assisted approach for the impregnation of room temperature ionic liquid onto Dowex 1 x8 resin matrix and its application towards the enhanced adsorption of chromium (VI)	Journal of Hazardous Materials 213-214, 249-257.	International	2012
62.	S. Kalidhasan, Priyanka Amba Gupta, Vinusha Reddy Cholleti, A. Santhana Krishna Kumar, Vidya Rajesh N. Rajesh	Microwave assisted solvent free green preparation and physicochemical characterization of surfactant-anchored cellulose and its relevance towards the effective adsorption of chromium	Journal of Colloid and Interface Science 372, 88-98.	International	2012
63.	N. Rajesh, A.S.Krishna Kumar, S. Kalidhasan, Vidya Rajesh,	An enhanced adsorption methodology for the detoxification of chromium using n-octylamine impregnated Amberlite XAD-4 polymeric sorbent	Journal of Environmental Science and Health: Part A 46(13), 1598-1610.	International	2011
64.	A. Santhana Krishna Kumar, S. Kalidhasan, Vidya Rajesh, N. Rajesh	Microwave assisted preparation and characterization of biopolymer-clay composite material and its application for chromium detoxification from industrial effluent	Adv. Mat. Lett. 2(6), 383-391	International	2011
65.	S. Kalidhasan, N. Rajesh, A. S. Krishna	A preliminary spectroscopic investigation on the molecular	Spectrochimica Acta Part A: Molecular and	International	2011





	Kumar, Vidya Rajesh	interaction of metal–diphenylthiocarbazone complex with cellulose biopolymer and its application	Biomolecular Spectroscopy, 79, 1681-1687.		
66.	N. Rajesh, A. S. Krishna Kumar, S. Kalidhasan, Vidya Rajesh	Trialkylamine impregnated macroporous polymeric sorbent for the effective removal of chromium from industrial wastewater	Journal of Chemical and Engineering Data 56, 2295-2304.	International	2011
67.	Jayanty ,S.,Akutagawa T., Nakamura	Highly Polar 7,7-bis(N,N-dimethylpiperazinium)-8,8-dicyanoquinodimethane in [Ni(dmit) <sub>2</sub> ] <sup>-</sup> salt : crystal structure and magnetic properties.	Cryst.Eng.Comm,12, 4087-4090.	International	2010
68.	Jayanty, S.,Akutagawa, T., Nakamura,	Hydrogen bonding Maleate anions as counter anion of tetrathiafulvalene crystals.	Cryst.Eng.Comm, 14, 3875-3881.	-do-	2012
69.	Arun,B.; Jayanty, S. *; Raghavaiah, P.	Synthesis and studies of a novel [(TTF)-(2-Amino-6-nitrobenzothiazole)]co-crystal.	Journal of Crystal Growth, 380, 241-246.	-do-	2013
70.	Arun, B.; Jayanty, S. *;	Supramolecular helical self -assemblies in 1-(2-cyanophenyl piperazine) and 4-piperidinopiperidine bis-substituted tetracyanoquinodimethane fluorophores.	Dyes and Pigments, 101, 303-311.	-do-	2014
71.	K. M. Naidu, A. Suresh, J. Subbalakshmi, D. Sriram, P. Yogeewari, P. Raghavaiah, K.V.G. Chandrasekhar,	Design,synthesis and antimycobacterial activity of various 3-(4-(substituted sulfonyl) piperazin-1-yl)benzo [d] isoxazole derivatives	European Journal of Medicinal Chemistry, 87, 71-78.	-do-	2014
72.	S.Jayanty	Synthesis, conductivity and		-do-	2014



		morphology study of polystyrenesulfonate templated tetrathiafulvalene polyionic polymers	Applied Science and Advanced Materials International, Vol. 1(2), 56-59.		
73.	S. Jayanty	Carboxymethyl cellulose templated polyaniline-Film morphology and conductivity	International Journal of Energy, Sustainability and Environmental Engineering	-do-In Press	2015
74.	Kateryna Podzelinska, Ryan Latimer, Anupam Bhattacharya, Leo C Vinning, David L Zechel, ZongChao Jia	Chloramphenicol Biosynthesis: The Structure of CmlS, a Flavin-Dependent Halogenase Showing a Covalent Flavin-Aspartate Bond	Journal of Molecular Biology, 397(1), 316-331	International	2010
75.	Katherine Groom, Anupam Bhattacharya, David L Zechel	Rebeccamycin and Staurosporine Biosynthesis: Insight into the Mechanisms of the Flavin-Dependent Monooxygenases RebC and StaC	ChemBioChem, 12(3), 396-400	International	2011
76.	Mahesh Akula, Jonnalagadda P Sridevi, P Yogeewari, D Sriram, Anupam Bhattacharya	New class of antitubercular compounds: synthesis and anti-tubercular activity of 4-substituted pyrrolo[2,3-c]quinolines	Monatshefte Fur Chemie, 145(5), 811-819	International	2014
77.	Mahesh Akula, Patrick Z El-Khoury, Amit Nag, Anupam Bhattacharya	Selective Zn <sup>2+</sup> sensing using a modified bipyridine complex	RSC Advances, 4, 25605-25608	International	2014
78.	Mahesh Akula, Yadagiri Thigulla, Connor Davis, Mukund Jha, Anupam Bhattacharya	Synthesis of 4-substituted oxazolo[4,5-c]quinolines by direct reaction at the C-4 position of oxazoles	Organic and Biomolecular Chemistry, 13, 2600-2605	International	2015
79.	Mahesh Akula, Yadagiri	Selective detection of fluoride	RSC Advances, 5,	International	2015



	Thigulla, Amit Nag, Anupam Bhattacharya	using fused quinoline systems: effect of pyrrole	57231-57234	al	
80	Limbotin, Subhas Ghosal and R Cote	Threshold resonance processes in reactive processes	Phys. Rev. A 89 040701(R) (2014)	International	2014
81	M. Gacessa, Subhas Ghosal, J N Byrd and R. Cote	Feshbach optimized photoassociation of ultracold 6Li87Rb molecules with short pulses	Phys. Rev. A 88 063418 (2013)	do	2013
82	G. Balaji, R Aravinda Narayanan, Andrew Weber, Faruq Mohammad, Challa SSR Kumar	Giant magnetostriction in magnetite nanoparticles	Mat. Sci. Eng. B 177, 2012, pp. 14-18.	International	2012
83	Roy Sounak, Madras, G	PhotoCatalytic NOx abatement: An Overview	Current Organic Chemistry DOI: <a href="https://doi.org/10.2174/1385272819666150603235429">10.2174/1385272819666150603235429</a>	International	2015
84	Roy Sounak	Materials for catalysis: Connecting Academia to Industry	Journal of Catalysts and Catalysis 2 (2015) 1-3	National	2015
85	Roy Sounak; Bakhtmutsky, K.; Lobo, R. F. Gorte, R.J	Probing Lewis acid sites in Sn- Beta zeolite	ACS Catalysis 3 (2013) 573 - 580	International	2013
86	T. Vikramaditya and K. Sumithra	New insights in the adsorption of oxygen molecules on single walled carbon nanotubes	Computational Materials Science 79, 656–662 (2013)	International	2013



87	T. Vikramaditya and K. Sumithra	Effect of substitutionally boron-doped single walled semiconducting zigzag carbon nanotubes on ammonia adso	Journal of Computational Chemistry 35(7):586-94 (2014).	International	2014
88	Garg, A., Vijayaraghavan, V., Wong, C.H., Tai, K., Sumithra K, Mahapatra S. S, Yao L and Pravin M. Singru	Application of artificial intelligence technique for modeling elastic properties of 2-D nanoscale material	Molecular Simulation, DOI: 10.1080/08927022.2014.951351 2014.	International	2014
89	V. Vijayaraghavan, A. Garg, C. H. Wong, K. Tai, K. Sumithra, L. Gao and S.S. Mahapatra	On the Study of machining characteristics of 2-D nanoscale material	Nanoscience and Nanotechnology letters6, 1079-1086, 2014	International	2014
90	V Vijayaraghavan, A Garg, C H Wong, K Tai, K Sumithra, L Gao	Combined CI-MD approach in formulation of engineering moduli of single layer graphene sheet"	Simulation Modeling Practice and Theory 48, 93-111,2014.	International	2014
91	T. Vikramaditya, M. Saisudhakar, K.Sumithra.	Electronic structure of $\alpha$ -oligothiophenes with various substituents;	Journal of Molecular Structure (Elsevier), 1081 114–123, (2015).	International	2015
92	T. Vikramaditya, M. Saisudhakar, K. Sumithra.	The adsorption of glycine in non-ionic and zwitter-ionic states on intrinsic and functionalized semi-conducting carbon Nanotubes;	Journal of computational and theoretical Nanoscience (American Scientific Publishers), 12, 1-7, (2015).	International	2015



93	T. Vikramaditya, M. Saisudhakar, K. Sumithra.	A PBC-DFT study of electronic properties of substituted Polythiophenes	Journal of Physical Organic Chemistry (Wiley), DOI: 10.1002/poc.3473 ; (2015)	International	2015
94	V.R. Pooja, Krishnan Rangan,	Controlled synthesis and characterization of ( $\mu$ -oxalato)dimetal complex of nickel	Journal of Advances in Science and Technology, 14, 1-7, (2014).	National	2014
95	Jessica D. Knoll, Shamindri M. Arachchige, Guangbin Wang, Krishnan Rangan, Ran Miao, Samantha L. H. Higgins, Benjamin Okyere, Meihua Zhao, Paul Croasdale, Katherine Magruder, Brian Sinclair, Candace Wall, Karen J. Brewer	Electrochemical, spectroscopic, and photophysical properties of structurally diverse polyazine-bridged Ru(II),Pt(II) and Os(II),Ru(II),Pt(II) supramolecular motifs	Inorganic Chemistry, 50, 8850-8860, (2011)	International	2011

### Conference Details

SI No	Authors	Title of the Presentation	Details of the conference	Year
1	A. Rishi Vachaspathy, N. Srinivasa Rao, B. Satish, G. Balaji*	Synthesis, Characterization and Chemical Reactivity of CaO Nanoparticles	National Conference on Nano and Functional Materials, 2014. BITS-Pilani, Pilani Campus	2014
2	N. Srinivasa Rao, Avinash Panda, Hemanth Narsetti, Balaji Gopalan, Krishnan Rangan and Kannan Ramaswamy	Investigations of Faraday Rotation in Fe <sub>3</sub> O <sub>4</sub> and core-shell Fe <sub>3</sub> O <sub>4</sub> @Au nanoparticles	National Conference on Advanced Materials for Defense and Aerospace Applications	2014



3	Ravikiran Nagarjuna, Ramakrishnan Ganesan, Sounak Roy	Polymerization mediated soft-synthesis of zeolite-4A supported TiO <sub>2</sub> , its characterization and photodegradation of methylene blue	Eurasia 2014 (13th Eurasia conference), Indian Institute of Science, Bangalore	2014
4	Ramakrishnan Ganesan, Saman Safari Dinachali, Mohammad S. M. Saifullah, Eng San Thian and Chaobin He	Sol-gel based direct nanoimprinting of oxides – A universal approach!	National Conference on Chemistry of Chalcogenides (NC3 2015) and related topics	2015
5.	Sounak Roy	NOx Storage and Reduction: New Generation Smart Catalysts	21st National Symposium on Catalysis, IICT, Hyderabad.	2013
6.	Sounak Roy	“Environmental Catalysis: From Mechanism and Materials Properties to Catalytic Performance”	Invited Speaker in XXXIII Annual Conference of Indian Council of Chemists, ISM - Dhanbad	2014
7.	Durba Roy	Presented a poster on “ Site dependent spectral densities of pigments in a simplified photosynthetic reaction center”	International symposium on Dynamics of Complex Chemical and Biological Systems, IIT-Kanpur	2014
8.	Durba Roy	Presented a poster on “Disulfide Scrambling in Neurotoxic Peptides”	5th International symposium of Indian Peptide Society, held at JNCASR, Bangalore	2015
9.	Durba Roy	“QM calculations of proton affinities of common alpha-amino acids”	Invited speaker/trainer in the Winter School on computational chemistry, held at Univ. of Hyderabad	2015
10.	Jayanty Subbalakshmi	Molecular materials based on donor and acceptor molecules”	Invited lecture at P.G. Center, Rajahmundry, A.P	2012
11.	Jayanty Subbalakshmi	Disubstituted Acceptors for optical properties	Poster: 6th CRSI, Mid-year National meeting, CDRI Lucknow	2012
12.	Jayanty Subbalakshmi	Copious Short interactions in donor-thiazole CT complex	Poster : 15th CRSI, National conference, BHU, Varanasi	2013
13.	Jayanty Subbalakshmi	Substituted acceptors as novel materials	Poster presented at 19th ISCBC, Mohanlal sukhadia University, Udaipur	2013



14.	Jayanty Subbalakshmi	Donor-thaizole co-crystal	Oral presentation at "First annual international conference industry, Sanketika Vidya Parishad, Visakhapatnam, A.P.	2013
15.	Jayanty Subbalakshmi	Spin coated Films of Carboxymethylcellulose and Polystyrenesulfonate	International Conference on Advancement in Materials, Health and safety towards sustainable energy and environment	2014
16.	Jayanty Subbalakshmi	Polyelectrolytes and their templates	Invited lecture: Third international conference on polymer processing and characterization, M.G. University, Kerala	2014
17	N. Suresh, H.N. Nagesh, M.P. Bhadra, A. Mallika, K.V.G. Chandra Sekhar	Synthesis, in vitro antiproliferative activity of 1-cyclopropyl-6-fluoro-4-oxo-7-(4-(2-oxo-2-(substitutedphenylamino)ethyl)pi perazin-1-yl)-1,4-dihydroquinoline-3-carboxylic acid analogues	16th Tetrahedron Symposium: Challenges in Bioorganic & Organic Chemistry, Berlin, Germany	2015
18	S. Srinivas Rao, K. Mahalakshmi Naidu, A. Suresh, K.V.G. Chandra Sekhar.	Synthesis and biological activity of 6-(piperazin-1-yl)phenanthridine sulphonamide derivatives as potent anti-tubercular agents.	International Symposium on Bioorganic Chemistry (ISBOC-10), Indian Institute of Science Education and Research, Pune	2015
19	A.Suresh, K.Mahalakshmi Naidu, S. Srinivas Rao, K.V.G.Chandra Sekhar.	Synthesis and characterization of new tetrazole derivatives as anti-tubercular agents.	International Symposium on Bioorganic Chemistry (ISBOC-10), Indian Institute of Science Education and Research, Pune	2015
20	N. Suresh, A. Kumar, K. Parang, M. Alvala, K.V.G. ChandraSekhar.	Synthesis and anticancer evaluation of novel ciprofloxacin analogues.	International Conference on Innovations in Chemical Research and Applied Chemical Sciences at Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar-3, Mumbai,	2015
21	K. Mahalakshmi Naidu, H.N. Nagesh, S. Srinivasarao, A. Suresh, N.Suresh, D. Sriram, K.V.G. Chandra Sekhar	Design, synthesis and biological evaluation of novel Phenanthridine amide analogues as potent anti-tubercular agents	13th Eurasia Conference on Chemical Sciences at Indian Institute of Science, Bangalore, India	2014



22	H.N. Nagesh, A. Suresh, D. Sriram, P. Yogeewari, K.V.G. Chandra Sekhar	A new hybrid approach for design, synthesis and evaluation of substituted phenethylthiazole derivatives as antitubercular agents.	15th Tetrahedron Symposium - Asian Edition on Challenges in Bioorganic and Organic Medicinal Chemistry organised by Elsevier at Singapore Expo, Singapore	2014
23	K.V.G. Chandra Sekhar, A. Suresh, H.N.Nagesh, N.Suresh, K.Mahalakshmi Naidu, D.Sriram, P.Yogeewari.	Design, Synthesis and anti-tubercular activity of various Phenanthridine analogues.	3rd International Conference on chemistry for sustainable development: Indian perspective, organised by Indian Council of Chemists at Dubai, United Arab Emirates,	2014
24	H.N.Nagesh, K.Mahalakshmi Naidu, A. Suresh, J.Subbalakshimi, D.Sriram, P.Yogeewari, K.V.G. Chandra Sekhar.	Design, synthesis and anti-tubercular evaluation of novel benzo[d]isoxazole hybrid analogues.	International conference on drugs for the Future: Infectious Diseases, Antimicrobial Drug Discovery: Challenges and perspectives DFID-2014, NIPER, Hyderabad,	2014
25	K.Mahalakshmi Naidu, A. Suresh, N.Suresh, H.N.Nagesh, K.V.G. Chandra Sekhar.	Design, synthesis and in vitro antifungal evaluation of novel ciprofloxacin derivatives.	5th National seminar on Bioinformatics, Sri Venkateshwara Institute of Medical Sciences, Tirupati,	2014
26	K.Mahalakshmi Naidu, H.N.Nagesh, N.Suresh, A. Suresh, K.V.G. Chandra Sekhar	Synthesis and evaluation of phenanthridine analogues as anti-tubercular agents.	16th CRSI Symposium in Chemistry, IIT Bombay,	2014
27	A.Suresh, H.N.Nagesh, N.Suresh, K.Mahalakshmi Naidu, D.Sriram, P.Yogeewari, K.V.G.Chandra Sekhar.	Synthesis and anti-tubercular activity of 6-(4-substitutedpiperazin-1-yl) phenanthridine analogues.	International conference on Chemical Biology, Disease mechanisms and Therapeutics (IICB-2014), Indian Institute of Chemical Technology, Hyderabad	2014
28	N.Suresh, H.N.Nagesh, K.Mahalaxmi Naidu, A. Suresh, K.V.G. Chandra Sekhar, K. Parang,	Design and synthesis of 1-cyclopropyl-6-fluoro-4-oxo-7-{4-substituted piperazin-1-yl}-1, 4-dihydro quinoline-3-carboxylic acid derivatives as Antiproliferative agents.	National Poster- II Symposium on Advances in Organic / Medicinal Chemistry (AOMC-2013), Krishna University, Vijayawada,	2013





29	N.Suresh, H.N.Nagesh, K.Mahalaxmi Naidu, Inshad Ali Khan, K.V.G. Chandra Sekhar	Design and synthesis of 1-cyclopropyl-6-fluoro-4-oxo-7-{4-substituted piperazin-1-yl}-1, 4-dihydro quinoline-3-carboxylic acid derivatives as Anti-tubercular agents	2nd UK-India MedChem Congress, IICT Hyderabad, March 22-23rd, 2013.	2013
30	H.N. Nagesh, K. Mahalakshmi Naidu, N. Suresh, K.V.G. Chandra Sekhar	Design and synthesis of novel phenanthridine derivatives as anticancer agents	19th ISCB International Conference (ISCB – 2013), Mohanlal Sukhadia University Udaipur	2013
31	K.Mahalakshmi Naidu, H.N. Nagesh, N.Suresh, K.V.G. Chandra Sekhar	Synthesis Of Benzisoxazolylpiperazines as dopamine D2 antagonists	CTDDR 2013 : 5th International Conference on Drug Development and Orphan/Neglected Diseases, CDRI Lucknow	2013
32	N.Suresh, H.N.Nagesh, K.Mahalaxmi Naidu, K.V.G. Chandra Sekhar	Design and synthesis of 1, 3-disubstituted 5-(2-(4-substituted piperazine-1-yl) acetyl) indoline-2-one derivatives as anti-cancer agents	15th CRSI National Symposium in Chemistry, Banaras Hindu University – Varanasi	2013
33	N.Suresh, H.N.Nagesh, K.Mahalakshmi Naidu, K.V.G. Chandra Sekhar	Design and Synthesis of 1-cyclopropyl-6-fluoro-4-oxo-7-{4-substituted piperazin-1-yl}-1,4-dihydro quinoline-3-carboxylic acid derivatives as anti-tumor agents	6th Midyear CRSI Symposium in Chemistry, CDRI Lucknow	2012
34	H.N. Nagesh, N.Suresh, K. Mahalakshmi Naidu, V.S. Rao, K.V.G. Chandra Sekhar	Synthesis of Phenanthridinyl piperazines as novel Dopamine D2 antagonists	14th CRSI National Symposium on Chemistry, CSIR-NIIST, Thiruvananthapuram	2012
35	K V G Chandra Sekhar, V S Rao, T V N V Tara Sasank, V Sreedhar Kumar	An Expeditious Synthesis of 3,5-Diarylisoaxazoles under solvent-free conditions using Iodobenzene diacetate	13th CRSI National Symposium on Chemistry, NISERKIIT University, Bhubaneswar	2011
36.	A. Nag & V. Ara Apkarian	Single molecule SERS by equipping molecules with antenna	"Discussion meeting on Spectroscopy and Dynamics of Molecules and Clusters 2013" held at Udaipur, Rajasthan, India	2013
37.	T. Mancabelli, J. Janik, N. Mauser, A. Nag, R. Chakraborty,	"High Resolution Optical Characterization and Lifetime Imaging of Nanomaterials"	"Light at the Nanotip: Scanning Near-field Optical Microscopy and Spectroscopy" held at Physics	2013



	D. Piatkowski, R. Krahne & A. Hartschuh		Center Bad Honnef (near Bonn/Cologne), Germany	
38.	A. Nag & A. Hartschuh	"Antenna Enhanced 'Fluorescence Lifetime Imaging Microscopy (FLIM)' of Metallic Nanostructures"	"Dynamics of Complex Chemical and Biological Systems" held at IIT Kanpur, Kanpur,U.P., India	2014
39.	S. Pawar, M. Akula, S. Labala, Vamsi K. Venuganti, A. Bhattacharya and A. Nag	"Surfactant sensitized fluorescence sensing of Zn <sup>2+</sup> in water and its application in bioimaging"	"17th CRSI National Symposium in Chemistry" held at National Chemical Laboratory-Pune, India	2015
40.	A. Nag, S. Pawar, M. Akula and A. Bhattacharyya	"Gold and silver nanoparticle enhanced molecular fluorescence for Zn <sup>2+</sup> detection in aqueous niosome solution"	"International Conference on optics and photonics" held at Calcutta University, Calcutta, India	2015
41	Manab Chakravarty and R. T. Paine	Synthesis of Multifunctional Pyridine Based Phosphorus Compounds Used as Potential Chelators for Heavy Metal Ions"	14 <sup>th</sup> CRSI National Symposium in Chemistry (NSC-14), Trivandrum	2012
42	Gangaram Pallikonda and Manab Chakravarty	FeCl <sub>3</sub> -Mediated Regio- and Stereoselective Arylation of $\alpha$ -Hydroxyphosphonates with Arenes: Synthesis of Important Phosphonates"	19th Indian Society for chemists and biologists international conference (ISCB-2013),Udaipur, Rajasthan	2013
43	Gangaram Pallikonda and Manab Chakravarty	Synthesis of Biologically Relevant Sulfonamides and $\gamma$ -Ketophosphonates by Acid Mediated reactions of $\alpha$ -hydroxyphosphonates	International Conference on Chemical Biology (ICCB-2014) CSIR-Indian Institute of Chemical Technology, Hyderabad.	2014
44	Gangaram Pallikonda and Manab Chakravarty	Acid Mediated Synthesis of New $\omega$ -Ketovinyl Phosphonates and Route for Functionalized 1,3-Butadienes	13 <sup>th</sup> Eurasia Conference on Chemical Sciences • Indian Institute of Science, Bangalore, India	2014
45	A.Santhana Krishna Kumar, S. Kalidasan and N. Rajesh	Amine impregnated polymeric resin matrix for the removal of chromium from industrial waste water	CRSI National symposium in Chemistry (NSC-12) Indian Institute of Chemical Technology, Hyderabad	2010
46	S. Kalidhasan, AS.K. Kumar, N.Rajesh	Self-assembled bilayer of cellulose / quaternary	National Conference in green and Sustainable Chemistry at Birla	2010



		ammonium salt as adsorbent for the removal of toxic chromium from industrial effluents	Institute of Technology and Science (BITS), Pilani	
47	S.Kalidhasan, N.Rajesh	Biopolymer adsorbent for the removal of malachite green from aqueous solution	National Conference in green and Sustainable Chemistry at Birla Institute of Technology and Science (BITS), Pilani	2010
48	A. Santhana Krishna Kumar, S.Kalidasan, Vidya Rajesh and N. Rajesh	Microwave assisted synthesis of water soluble surfactant coated cellulose sorbent for the removal of toxic chromium from industrial waste water	Mid-CRSI at National Institute for Interdisciplinary Science and Technology (NIIST)	2010
49	A. Santhana Krishna Kumar, S. Kalidasan, Vidya Rajesh and N. Rajesh	Removal of chromium from industrial effluents using amberlite XAD-1180 resin impregnated with n-octylamine	2nd International Conference on Natural and Biopolymers(CNP) at Mahatma Gandhi University	2010
50	A.S.K.Kumar, Timsi Gupta, S.S. Kakan, S.Kalidhasan, V.Rajesh, N.Rajesh	Chitosan-ionic liquid blend polymeric adsorbent material for effective adsorption of chromium	International conference on Nanomaterials and nanotechnology Univ of Delhi	2011
51	S. Kalidasan, A.S.K. Kumar, Biswa Prasanna, N. Rajesh	Chitosan-graft-PANI copolymer and its application for heavy metal adsorption	National Seminar on Nanostructured Materials and applications at Madurai Kamaraj University (MKU)	2011
52	S.Kalidhasan, A.S.K. Kumar, N.Rajesh	Green composite for the effective adsorption of heavy metal chromium	National Seminar on Nanostructured Materials and applications at Madurai Kamaraj University (MKU)	2011
53	A.S.K. Kumar, N.Rajesh	An efficient approach for the adsorption of chromium using dodecylamine modified sodium montmorillonite clay	International conference on Vistas in Chemistry held at IGCAR, Kalpakkam	2011



54	A.S.K. Kumar, S.Kalidhasan, N.Rajesh	Ionic liquid impregnated polystyrene divinylbenzene adsorbent for the effective adsorption of chromium	International conference on Vistas in Chemistry held at IGCAR, Kalpakkam	2011
55	B. Rajesh Kannan, S. Kalidasan, A. Santhana Krishna Kumar, N. Rajesh and B. Hairihara Venkataraman	Study of the interesting physical properties of biopolymer-strontium titanate nanocomposites	International Conference on Nanoscience and Technology, organised by ARCI, Hyderabad	2012
56	A.S.K. Kumar, N.Rajesh	Cellulose impregnated with mercaptobenzothiazole for the effective adsorption of mercury from aqueous solution	CRSI National symposium in Chemistry (NSC-14) NIIST, Trivandrum	2012
57	A.S.K. Kumar, N.Rajesh, C.U. Kumar	Graft Polymerization of n-butylacrylate onto chitosan for the remediation of hexavalent chromium	National Conference on "Chemistry for Sustainable Development" (SusCon-2012), GITAM University, Vizag	2012
58	A.S.K. Kumar, N.Rajesh	Long Chain Amine Impregnated Exfoliated Graphene Oxide for the Effective Removal of Chromium from Tannery Wastewater	Singapore International Chemistry Conference (SICC 7) and APCE 2012, National University of Singapore	2012
59.	M. Barathi, A.S.K.Kumar and N. Rajesh	Zirconium impregnated cellulose biopolymer for the effective defluoridation of drinking water	15th CRSI-National Symposium in Chemistry, Banaras Hindu University, Varanasi	2013
60	Manasi, Vidya Rajesh, A.Santhan Krishna Kumar and N.Rajesh	Adsorption of cadmium and lead using a novel bacterial strain isolated from e waste,	Indian Analytical Science Congress, Goa	2013
61	Shivani Sharma and N. Rajesh	Ultrasound assisted preparation of mercaptobenzothiazole-cellulose adsorbent for the adsorption of palladium	Indian Analytical Science Congress, Goa	2013
62	Shivani Sharma,	A novel solid phase extraction	16th CRSI National Symposium in	2014



	A.S.K. Kumar, R..Sudheer Reddy and N. Rajesh	methodology for the recovery of precious metal palladium	Chemistry, IIT Bombay	
63	Manasi, Vidya Rajesh, T.sathvika and N.Rajesh	Removal of zinc using a novel microbe-polysaccharide adsorbent	16th CRSI National Symposium in Chemistry, IIT Bombay	2014
64	Shivani Sharma and N. Rajesh	Macroporous polymeric resin functionalized with 2 mercaptobenzothiazole as an efficient adsorbent for palladium	13th Eurasia Conference on Chemical Sciences, IISc, Bangalore	2014
65	M.Barathi, A.S.K. Kumar, N.Rajesh	A macroporous polymeric adsorbent impregnated with Al <sup>3+</sup> for effective fluoride adsorption	International conference on green chemistry, catalysis, energy and environment, Goa University	2015
66	T.Manasi, V.Rajesh, N.Rajesh	AGraphene Oxide-microbe combination as an effective adsorbent for the remediation of zinc	2nd International Conference on Frontiers in Biological Sciences (InCoFIBS-2015), NIT Rourkela	2015
67	T.Sathvika, Manasi, V.Rajesh, N.Rajesh	A novel fungal-biopolymer combination as an adsorbent for the effective removal of hexavalent chromium	2nd International Conference on Frontiers in Biological Sciences (InCoFIBS-2015)., NIT Rourkela	2015
68	Shivani Sharma and N. Rajesh	Chitosan grafted $\beta$ -cyclodextrin as an efficient adsorbent for palladium and its application in catalyst recovery	BRNS-AEACI symposium on current trends in Analytical Chemistry (CTAC 2015) BARC, Mumbai	2015
69	N.Rajesh	Biopolymer composites for the removal of toxic chromium	Invited talk at National conference in Green and sustainable chemistry, BITS Pilani	2010
70	N.Rajesh	Chemically modified biopolymers and their application to the removal of toxic metals from industrial effluents	Invited talk at International conference on Natural and Biopolymers at M.G.University, Kottayam, India	2010
71	N.Rajesh	Polymeric sorbents and their application in solid phase extraction	Invited talk at International congress on analytical science, , Cochin	2010
72	N.Rajesh	Customized polymeric sorbents for the detoxification of heavy metals	Invited talk at International conference on Nanomaterials (ICNANO) New Delhi	2011



73	N.Rajesh	Emerging trends in the application of biopolymer composites	Invited talk at National Conference on Advanced Nanomaterials, Periyar University, Salem	2012
74	N.Rajesh	Polymeric composites and their relevance in environmental remediation	Invited talk at National Seminar on New Frontiers in Scientific Research, Andhra Loyola College, Vijayawada	2012
75	N.Rajesh	Tailored Polymeric Sorbents for Environmental Remediation of Heavy Metals	Invited talk at International Conference on Natural Polymers, Bio Polymers (ICNP 2012), Kottayam	2012
76	N.Rajesh	Interesting aspects of interaction between biopolymers and heavy metals,	Invited talk at UGC sponsored National Seminar organised by Dept of Chemistry, Madura College, Madurai	2013
77	N.Rajesh	Biopolymers and their versatility for heavy metal adsorption	Invited talk at Indian Analytical Science Congress- 2013, Goa	2013
78	N.Rajesh	Biopolymer-Heavy metal interaction-a perspective	Invited talk at International Conference on Advanced Polymeric Materials, 2013, M.G. University, Kottayam, India	2013
79	N.Rajesh	Interesting features of heavy metal interaction with polymer composites for environmental remediation	International Conference on Nanomaterials, organised by B.S.Abdur Rahman Univ, Chennai and Deakin University, Australia	2014
80	N.Rajesh	Importance of literature survey in research methodology	Invited talk at Workshop on Research Methodology, BITS Pilani Hyderabad campus	2014
81	N.Rajesh	Tailored polymeric adsorbents for environmental applications	Invited talk at Innovations in Chemical Engineering, BITS Pilani Hyderabad campus	2013
82	N.Rajesh	Versatile applications of customized biopolymers to sequester heavy metals from industrial effluents	Invited talk at SESTEC 2014, BARC, Mumbai, India	2014
83	N.Rajesh	Exploring the unique attributes in the interaction of heavy metals with novel polymeric adsorbents	Invited talk at International conference on Materials and Characterization, held at VIT, Chennai	2014



84	N.Rajesh	Comprehending the interaction between heavy metals and tailored adsorbent materials for environmental remediation	Invited talk at World Congress and Expo on Nanotechnology and Material Science, held at Dubai	2015
85	N.Rajesh	Application of customized biopolymer based materials as green adsorbents for environmental remediation	Invited talk at National conference on Nanoscience for sustainable development at Dr.Ambedkar college, Nagpur	2015
86	N.Rajesh	A journey towards understanding the interaction of toxic metal ions with polymeric adsorbents	Invited talk at International conference on Green chemistry, catalysis, energy and environment" held at Goa University, Goa	2015
87	N.Rajesh	Solid phase extraction for chromium speciation using customized green adsorbents	Invited talk at National conference on Analytical Science and Technology Kerala,	2015
88	Subhas Ghosal	Quantum mechanical rate coefficient of formation and destruction of HD molecule at ultracold temperatures: its importance in interstellar cooling	Invited talk in International conference on CDAMOP, Delhi University	2015
89	Ranga Santosh, Subhas Ghosal	Investigation of reverse water gas shift reaction catalysed by metal halogen carbonyl complexes: A Density Functional study	Poster in AMDA-2014,BITS-Pilani Hyderabad Campus	2014
90	Ranga Santosh,Subhas Ghosal	Investigation of reaction cross sections and reaction rate coefficients for atom-diatom collisions at low temperatures.	Poster in Theoretical chemistry Symposium IISER-NCL Pune	2014
91	Archita Sharma,Kolli Deepika ,Ranga Santosh and Subhas Ghosal	Mechanism of water shift reaction catalysed by Fe and Ru carbonyl complexes: A Density functional theory study	Indo-US Conference on Advanced Lignocellulosic Biofuels (IICT-Hyderabad)	2014
92	R Santosh and S Ghosal	Accurate rate coefficient of ... reactions of astrophysical interest	Chemistry with Computers, IICT & IIIT Hyderabad	2014
93	Subhas Ghosal	Radiative photoassociation of ultracold molecules	Theoretical Chemistry Symposium, IIT Guwahati	2012
94	A Mahesh and	Synthetic route to	14 <sup>th</sup> CRSI National Symposium in	2012



	Anupam Bhattacharya	novel 3H-pyrrolo-[2, 3-c]quinoline derivatives as potential antimalarial agents	Chemistry (NSC-14), NIIST-Trivandrum	
95	T Yadagiri and Anupam Bhattacharya	Chalcone mediated synthesis of 4-aryl substituted pyrrolo-[3, 4-c]quinoline compounds	15 <sup>th</sup> CRSI National Symposium in Chemistry (NSC-14), BHU-Varanasi	2013
96	A Mahesh and Anupam Bhattacharya	Total Synthesis of a natural anti-malarial, Aplidiopsamine A	19th Indian Society for chemists and biologists international conference (ISCB-2013), Udaipur, Rajasthan	2013
97	Anupam Bhattacharya	4-Substituted pyrrolo[2,3-c]quinoline systems: Synthetic, anti-tubercular and selective metal detection studies	Invited talk in 20th Indian Society for chemists and biologists international conference (ISCB-2014), Delhi	2014
98	A Mahesh, Amit Nag and Anupam Bhattacharya	Synthesis & zinc sensing activity of fused pyrrolo[2,3-c]quinoline systems	Eurasia 2014 (13th Eurasia conference), Indian Institute of Science, Bangalore	2014

**23. Details of patents and income generated NA**

**24. Areas of consultancy and income generated N.A.**

**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**

Name of the faculty	Institution & Country	fellowship/programme	Year
Ramakrishnan Ganesan	Rensselaer Polytechnic Institute (RPI), Troy, NY, USA	Indo-US Science & Technology Forum (IUSSTF) Research Fellowship Award	2014
Subhas Ghosal	University of Kassel, Germany	INSA-DFG bilateral exchange program	2013
Amit Nag	LMU, Munich, Germany	International Collaborative Exchange Programme by INSA, New delhi	2013

**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

Name of the faculty	Name of the committee/ Editorial board/other	Country (if applicable)	Duration (in Years)
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Jayanty Subbalakshmi	CCRS-Joint Secretary	India	Since August 2015
Jayanty Subbalakshmi	National Advisory board committee member at CCRS	India	2014-till date
Jayanty Subbalakshmi	Dr.K.V.Rao Scientific Society, Research Review, committee member	India	2010-till date

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level.

Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

Faculty has attended various refresher, orientation & training programs such as:

Name of the faculty involved	Name of the programme /other	Duration (in days)
Jayanty Subbalakshmi	Took lecture in UGC-Refresher course held at University of Hyderabad	1 day
Durba Roy	Delivered Lecture in UGC-Refresher course held at Academic Staff College, University of Hyderabad	2
Durba Roy	Participated in Intensive Teaching Workshop organized by BITS-Pilani, Hyd Campus in 2014	~ 21
K. Sumithra	Delivered invited lecture on UGC sponsored seminar at New Bhavan's College, Hyderabad.	1



## 28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective. However, the list provides students guided by faculty members of the Department

- percentage of students doing projects in collaboration with other universities /industry / institute

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

## 29. Awards / recognitions received at the national and international level by Faculty

Name of the faculty	name of the award/recognition	country	Year
N.Rajesh	Fellow member of RSC	UK	2010
N.Rajesh	Shiksha Rattan Purasakar	India	2011
N.Rajesh	Ph.D thesis examiner for University of Nottingham, UK, Malaysia campus	Malaysia	2012
N.Rajesh	Dissertation examiner for Monash University, Australia, Malaysia campus	Malaysia	2015

### Doctoral / post doctoral fellows

Name of the student/fellow	name of the award/recognition
Manasi	K.V.Rao Scientific society
Shweta Pawar	Royal Society of Chemistry (RSC) fellowship for a best poster award in CRSI 2015

### Students

Name of the student/fellow	name of the award/recognition
Adarsh Raghavan	DST Inspire Scholarship
T Pratyusha	DST Inspire Scholarship
Arushi Gupta	DST Inspire Scholarship



K Ramudu	SN Bose Scholarship
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30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any. N.A.

31. Code of ethics of research followed by the Department.  
Department follows code of ethics specified by Institute.

32. Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
M. Sc Chemistry	14662 (2010-11) 12880 (2011-12) 15714 (2012-13) 15120 (2013-14) 18717 (2014-15)	24 24 22 16 20	05 11 05 11 07	100%	
Ph. D	(2010-11)425 (2011-12) 461 1173 (2012-13) 964 (2013-14) 773 (2014-15)	03 06 07 04 03	00 02 01 01 02	0 0 0 1 1	1 1 0 3 3

### 33. Diversity of students

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the state	% of students from other countries
MSc (Hons.) 2011-2015	NA	NA	NA	NA
PhD 2011-2015	0	75%*	25%*	NA

\*We do not capture this data through any formal process.

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Number & Name of the student (s) qualified	Name of the supervisor	Name of the examination	Year
S. Kalidhasan	N.Rajesh	CSIR SRF	2010
M. Barathi	N.Rajesh	GATE	2012
A Mahesh	Anupam Bhattacharya	NET (JRF) currently UGC SRF	2011



N Suresh	K V G Chandra Sekhar	UGC SRF	2010
A Srinivas Rao	K V G Chandra Sekhar	NET (JRF)	2014
Ranga Santosh	Subhas Ghosal	CSIR NET (JRF)	2014
Zubair Baig	Manab Chakravarty	GPAT	2011
T. Vikramaditya	K. Sumithra	UGC(JRF,SRF)	2011

### 35. Student progression

Student progression		Percentage against enrolled*
UG to PG		0
PG to M.Phil.		0
PG to Ph.D.		0
Ph.D. to Post-Doctoral		2
Employed		~ 85 (Campus selection for UG)
?	Campus selection	Data not available for other than campus recruitment
?	Other than campus recruitment	12
Entrepreneurs		1

\*This is the approximate data given. The department does not maintain the records for this.



### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	13.34
from other universities within the State	20.00
from universities from other States from universities outside the country	66.66

### 37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period N.A.

### 38. Present details of departmental infrastructural facilities with regard to

- Library - ~950 books in central library
- Internet facilities for staff and students **Available**
- Students' laboratories **3 Laboratories with basic infrastructure**

- **Research laboratories**

Name of the laboratory	infrastructural facilities
Inorganic & Physical chemistry Lab	Apex-Spin coating unit, Keithley-Constant Current source, PAGE (Polyacrylamide Gel Electrophoresis), Potentiostat and Galvanostat electrochemical system, Schlenk Lining
Organic Chemistry Lab	Rotary Evaporators (3), Magnetic stirrers (20), Flash Chromatography (1), Vacuum pumps (5), Schlenk Apparatus (1), Oven (1), UV- Chamber (2), Dryer (3), Heating Mantles (15), N <sub>2</sub> gas cylinder (2), Melting point Apparatus (1)
Analytical Chemistry Lab	UV-Visible spectrophotometer (1), Ion chromatograph(1), Fluoride ion selective meter (1) Ion selective electrodes (3) Mercury analyser (1) Research Centrifuges (2), Ultrasonication bath (1), Incubator shaker (1), Microwave oven (2), Glove box (1) Vacuum oven (1), Hot air oven (1), Muffle furnace (1), Probe sonicator (1), pH meter (2), Magnetic stirrers (5), Vacuum pump (1), Precision Balance(1)
Computational chemistry lab	5+3 nodes HPC cluster (in server room), 2 workstations, 2 PCs, 24 port network switch, working place 11 research scholars/ thesis students
Materials chemistry Lab	UV reactor (1), Glove box (1), Gas chromatography (1), Magnetic stirrer (1)
Spectroscopy Lab	a vibration isolation optical table, confocal Raman microscope (1), Spectrofluorometer (1)



Chemistry Research Lab	Rotary Evaporators (2), Magnetic stirrers (6), Biotage Flash Chromatography (1), Vacuum pumps (3), Oven (2), UV- Chamber (2), Dryer (1), Heating Mantles (10), N <sub>2</sub> / H <sub>2</sub> gas cylinder (2), Melting point Apparatus (2), Julabo (1), Microwave Oven (1), Hydrogenation apparatus (1), Millipore Water System (1), Balance (1)
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### 39. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university None
- from other institutions/universities

Name of Phd Students	Name of the supervisor	Name of Phd Students	Name of the supervisor
Gangaram Pallikonda	Manab Chakravarty	HN Nagesh	K V G Chandra Sekhar
Zubair baig	Manab Chakravarty	A Suresh	K V G Chandra Sekhar
Shweta Pawar	Amit Nag	S Srinivasa Rao	K V G Chandra Sekhar
Ranga Santosh	Subhas Ghosal	Surendar Chitti	K V G Chandra Sekhar
M. Saisudhakar	K. Sumithra	P Ravi Kiran	K V G Chandra Sekhar
A Mahesh	Anupam Bhattacharya	Jagadeesh Kodali	N Rajesh
T Yadagiri	Anupam Bhattacharya	Ravi Kiran Nagarjuna	Ramkrishnan Ganesan
T Uday Kumar	Anupam Bhattacharya	T Vikramaditya	K. Sumithra
M Bharathi	N Rajesh	Swapna C	Sounak Roy
Shivani Sharma	N Rajesh	N Srinivasa Rao	Balaji Gopalan
T Sathvika	N Rajesh	K Mahalakshmi Naidu	K V G Chandra Sekhar
N Suresh	K V G Chandra Sekhar		

### 40. Number of post graduate students getting financial assistance from the university. NA

### 41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology. NA

### 42. Does the department obtain feedback from

- faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?
- students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?



- iii. alumni and employers on the programmes offered and how does the department utilize the feedback?

**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Name of the lecture/workshop/seminar	Name of the programme (if applicable)	Name of the speaker (if applicable) with institution	date
Polymer -Metal Nanocomposites via chemistry inside a thin film	Alchemy-Invited lecture series	Prof. T.P. Radhakrishnan, Hyderabad Central University	4-9-12
Synthesis and characterization of functional materials	-do-	Prof. Suresh Valiyaveetil	22-9-12
Environmentally friendly organic synthesis using Bismuth (III) and Iron compounds	-do-	Prof. Ram Mohan	
Who is a nanoscientist, a tailor, a goldsmith or a person wearing many hats	-do-	Dr. B.L.V.Prasad	11-10-13
Conjugates of calixarenes as smart supramolecular materials for the selective recognition of ions and molecules.	-do-	Dr. C. Pulla Rao	25-1-14
Controlling nuclear and electronic motion in small molecules	-do-	Dr. Harjinder Singh, IIIT Hyderabad	22-9-14
Total Synthesis of Complex Natural Products for Human Health	-do-	Dr. Debendra Kumar, Mohapatra IICT Hyderabad	11-10-14
Polymers in Water Treatment : Current Status and Future Demands	-do-	Dr. N Anbananthan	27-10-14
Ribosome Mediated Site-Specific Incorporation of $\beta$ -Amino acids into Protein	-do-	Dr. Rumi Maini, Dept. of Chemistry & Biochemistry, Arizona	24-11-14



		State University, USA	
Self-organization in the realm of Chemical and Biological Physics	-do-	Dr. Pushpita Ghosh, Center for Theoretical Biological Physics, Rice University, USA	07-07-15
Minimizing Recombination in Quantum Dot Solar Cells	-do-	Dr. Pralay K Santra, Department of Chemical Engineering, Stanford University	27-08-15

**45. List the teaching methods adopted by the faculty for different programmes.**

Black Board, Power Point, Video presentations, Practical Labs, Inter-campus telepresence classes, External visits to Industries, Scientific excursions.

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Department has a committee on academics which meets on regular basis and monitors the courses offered by the department.

**47. Highlight the participation of students and faculty in extension activities.**

There are many social organizations actively working on campus like NIRMAAN, NSS, YUVA (Youth under visionary action), HOPE and SIRI (society involved in reinventing India on campus). We have various events on campus like Cloth Donation, Tree Plantation, Blood Donation, Campus Clean Up programs, Career Planning, Medical Camps, Campus Tour for School Students.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

Tour to Satish Dhawan Space Center, SHAR	Educational and Industrial Tour	24 students and three Faculty staff Prof. J. Subbalakshmi Prof. R. Krishnan Dr. Balaji Gopalan	12-4-13
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**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. No**





**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

The department is extremely active in research activities and each faculty member has procured research funding for projects in the various thrust areas of the department. Individual PIs are regularly publishing their work in high impact factor journals. The department has also generated national and international patents. Data pertaining to faculty publications, sponsored research projects, patents, consultancy etc., have been listed in items 1-10.

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Highly motivated, dedicated and well qualified faculty</li> <li>• Appreciable extramural funding and active research even though the campus is in its infancy</li> <li>• Recognition through DST-FIST Programme</li> <li>• Course curriculum – regularly upgraded</li> <li>• Infrastructure development in the last 3-4 years</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• No Industrial consultancy</li> <li>• Infrastructural facility needs to be improved further</li> <li>• Inter/multi-disciplinary approach not up to expectation</li> <li>• Applied research not up to expectation</li> <li>• Limited Space for teaching and research labs</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• To improve and strengthen research through collaborations and sponsored projects</li> <li>• Intensifying industry consultancy</li> <li>• Augment inter/multi-disciplinary approach</li> <li>• Increased publications in highly reputed journal</li> <li>• Attracting self-sponsored (fellowship holders) Ph.D. aspirant</li> </ul>	<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Space</li> <li>• Attracting highly motivated Ph.D. aspirants</li> <li>• Sustaining Ph.D. scholars</li> <li>• Lack of government agency sponsored major research projects</li> <li>• Attracting students towards chemistry as a career in a technical university</li> </ul>

**52. Future plans of the department.**

- 2 year M.Sc. in Materials Science
- To establish Industrial consultancy
- To increase the number of publications in well reputed journals
- To obtain at least 2 collaborative grants (integration of teams of allied areas of research)

**53. Any other information regarding your department which you would like to include.**



## HYDERABAD Campus: Evaluative Report of the Department CIVIL ENGINEERING

1. **Name of the Department** : Civil Engineering
2. **Year of establishment of the Department** : 2008
3. **Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
  - UG: B.E. (Hons) Civil
  - PG: M.E. Civil – Structural Engineering
  - Ph.D
5. **Interdisciplinary programmes and departments involved** : NONE
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**  
Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons** : nil
8. **Examination System:** Semester with Choice Based Credit System
9. **Participation of the department in the courses offered by other departments**
  - a) BITS F110: Engineering Graphics course is offered alternatively by Civil and Mechanical engineering departments. Even when mechanical department offers, five of Civil Engineering faculty/research scholars take practicals for five sections of Engineering Graphics.
  - b) Civil Engineering faculty have taught AAOC C222 Optimization, MATH F113 Probability & Statistics, BITS F218 General Mathematics - III courses offered by Mathematics department.

**10. Number of teaching posts sanctioned, filled and actual (Professors/AssociateProfessors/Asst. Professors/others).**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	2	2



Associate Professors		4	4
Asst. Professors		8	8
Others		1 Lecturer	1 Lecturer

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

### 11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
P N Rao	Ph.D	Professor	Structures	27 yrs 8 months	Completed: 1 Ongoing: 1
K S Raju	Ph.D	Professor	Water Resources	20 yrs	Completed:1 Ongoing: 3
V Vinayaka Ram	Ph.D	Associate Professor	Transportation	23 yrs 9 months	Completed:0 Ongoing: 3
A Vasan	Ph.D	Associate Professor	Water Resources	15 yrs	Completed: 0 Ongoing: 2
JagadeeshAnmala	Ph.D	Associate Professor	Water Resources	15yrs	Completed: 0 Ongoing: 0
Sridhar Raju	Ph.D	Associate Professor	Transportation	17 yrs	Completed: 0 Ongoing: 0
K Rajitha	Ph.D	Assistant Professor	Remote Sensing & GIS	8.5 yrs	Completed: 0 Ongoing: 1
Murari RR Varma	Ph.D	Assistant Professor	Water Resources	8 yrs	Completed: 0 Ongoing: 1
Chandu Parimi	Ph.D	Assistant Professor	Structures	10 yrs	Completed: 0 Ongoing: 0
TrishikhiRaychoudhury	Ph.D	Assistant Professor	Environmental	4.5 yrs	Completed: 0 Ongoing: 0
Mohan SC	Ph.D	Assistant Professor	Structures	3 yrs	Completed: 0 Ongoing: 0
AnasuaGuharay	Ph.D	Assistant Professor	Geotechnical	1.5 yrs	Completed: 0 Ongoing: 0
ArkamitraKar	Ph.D	Assistant Professor	Structures	1.5 yrs	Completed: 0 Ongoing: 0



Naveen James	Ph.D	Assistant Professor	Geotechnical	1.5 yrs	Completed: 0 Ongoing: 0
Sri Kalyana Rama J	ME	Lecturer	Structures	4 yrs 9 months	Completed: 0 Ongoing: 0

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors: NONE**

**13. Percentage of classes taken by temporary faculty – programme-wise information: NONE**

**14. Programme-wise Student Teacher Ratio**

As per the number of registered students in the current semester:

Programme	Number students	Student Teacher Ratio
B.E. (Hons) Civil	250	16.67 : 1
M.E. Structural	15	2.14 : 1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Academic support staff (technical) : 3 Administrative staff : 1 shared with another department

**16. Research thrust areas as recognized by major funding agencies**

We have got research projects from funding agencies primarily in the areas of Structural Engineering, Water Resource Engineering, Transportation Engineering in the last 5 years. However, we also have faculty with expertise in Environmental Engineering, Geotechnical Engineering, Remote Sensing & GIS areas.

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Experimental and Numerical Investigations on Sandwiched Modular Multilayer Self Compacted Cement Concrete Pavements.	Prof V Vinayaka Ram	Aditya Birla Group	10.0	3 Years (Oct 2011-Sep 2014)
2	Multiobjective Reservoir Optimization Using Swarm Intelligence Algorithms	Prof A Vasani	CSIR	11.17	3 Years (April 2011-March 2014)



**Ongoing projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Fourier Analysis and Development of Two-Dimensional Finite Element Schemes for Shallow Water Equations and Transport-related Systems	Prof JagadeeshAnmala	DST	11.0	3 Years (July 2012 - July 2015)
2	Multicriterion Analysis for Ranking of Various General Circulation Models to Study Water Resources of India	Prof K S Raju	CSIR	16.22	3 Years (November 2012 - October 2015)
3	Integrated Urban Flood Management in India: Technology-Driven Solutions	Prof K S Raju	ITRA	19.0	3 Years (November 2013 – October 2016) (INR 19.00 Lakhs)

**18. Inter-institutional collaborative projects and associated grants received**

a) National collaboration

b) International collaboration

SL No	Project Name	Principal Investigator(s)/ Co-Investigator(s)	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Multicriterion Analysis for Ranking of Various General Circulation Models to Study Water Resources of India	Prof. K S Rajuwith Prof. P.P.Mujumdar (IISc, Bangalore) Dr. RominusValsalam S (CDAC, Thiruvananthapuram) Prof NV Umamahesh, (NIT Warangal)	CSIR	16.22	3 Years (November 2012 - October 2015)



2	Integrated Urban Flood Management in India: Technology-Driven Solutions	Prof K S Raju with Prof. D. Nagesh Kumar (IISc, Bangalore)	ITRA	19.0	3 Years (November 2013 – October 2016) (INR 19.00 Lakhs)
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**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

We received a DST-FIST grant of 1.0 crore from DST. (2014-2019)

**20. Research facility / centre with**

- state recognition
- national recognition
- international recognition

We have one research center CEWRM (Center of Excellence in Water Resource Management) of state and national recognition. With CEWRM as the organizing body, we have conducted national level workshops and conferences.

**21. Special research laboratories sponsored by / created by industry or corporate bodies**

NONE

**22. Publications:**

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	1/31
2	Monographs	5
3	Chapters in Books	14
4	Edited Books	2
5	Books with ISBN with details of publishers	6
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)*****	32
7	Citation Index – range / average*	1.25
8	SNIP**	1.27
9	SJR***	0.72
10	Impact Factor – range / average	0 – 5.52 /1.77
11	h-index****	5.25

(\* - average of SNIP, SJR and average impact factor, \*\* - SNIP average of 8 available article scores, \*\*\* - SJR average of 14 available article scores, \*\*\*\* - average h-index of 8 available faculty scores, \*\*\*\*\* - Google scholar citations since 2010 available for 10 faculty members)



**Details of the publications as per the number give above (Give details in the last five years**

SL No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	VenuMalgavelli and Neelakanteswar a Rao Paturu	Strength and Workability Characteristics of Concrete by Using Different Super Plasticizers	International Journal of Materials Engineering, 2(1), pp.7-11. DOI:10.5923/ijme.20120201.02	International	2012
2	VenuMalgavelli and Neelakanteswar a Rao Paturu	Strength Characteristics of Concrete Using Solid Waste an Experimental Investigation	International Journal of Earth Sciences and Engineering, Vol.4, No.6, pp 937-940.	International	2011
3	VenuMalgavelli and Neelakanteswar a Rao Paturu	Polyester Fibers in the Concrete an Experimental Investigation	Advanced Materials Research, Vols.261-263, pp.125-129. DOI:10.4028/www.scientifi.net /AMR.261-263.125	International	2011
4	VenuMalgavelli and P. N. Rao	High Performance Concrete with GGBS and ROBO Sand	International Journal of Engineering Science and Technology, Vol.2(10), pp.5107-5113	International	2010
5	M. Venu and P. N. Rao	Study of Rubber Aggregates in Concrete: An Experimental Investigation	International Journal of Civil Engineering and Technology(IJCIET), vol.1, No.1m May-June(2010), pp.15-26.	International	2010
6	VenuMalagavelli, Rao, P.N	Effect of Non-Bio Degradable Waste in Concrete Slabs	International Journal of Civil and Structural Engineering, Vol.1, No.3.	International	2010
7	Shishir Gaur, K.Srinivasa Raju, D.Nagesh Kumar and D.Graillot	Multiobjective Fuzzy Optimization for Sustainable Groundwater Management using Particle Swarm Optimization and Analytic Element Method	Hydrologic Processes, Wiley InterScience, Vol.29, No.19, pp.4175-4187. DOI:10.1002/hyp.10441	International	2015
8	K.Srinivasa Raju and D.Nagesh Kumar	Ranking General Circulation Models for India Using TOPSIS	Journal of Water and Climate Change, IWA Publishing, UK, Vol.6, No.2, pp. 288-299. DOI:10.2166/wcc/2014.074	International	2015
9	K.Srinivasa Raju and D.Nagesh Kumar	Ranking of Global Climatic Models for India Using Multicriterion Analysis	Climate Research, Inter-Research Science Centre, Germany, Vol. 60, No. 2, pp. 103-117. DOI:10.3354/cr01222	International	2014
10	D.V.Morankar,	Integrated Sustainable	Water Resources	International	2013



	K.Srinivasa Raju and D.Nagesh Kumar	Irrigation Planning with Multiobjective Fuzzy Optimization Approach	Management, Springer, Vol. 27, No.11, pp. 3981-4004. DOI: 10.1007/s11269-013-0391-3	nal	
11	K.Srinivasa Raju and D. Nagesh Kumar	Prioritisation of Micro-Catchments based on Morphology	Water Management, Proceedings of the ICE, Institution of Civil Engineers, ICE Publishing, UK, Vol. 166, No.7, pp.367-380. DOI: 10.1680/wama.11.00076	International	2013
12	K. Srinivasa Raju and D. Nagesh Kumar	Fuzzy Data Envelopment Analysis for Performance Evaluation of an Irrigation System	Irrigation and Drainage, Wiley InterScience, Vol. 62, No. 2, pp. 170-180. DOI: 10.1002/ird.1721	International	2013
13	K. Srinivasa Raju, A. Vasanth, Piyush Gupta, KarthikGanesan and Hitesh Mathur	MultiObjective Differential Evolution Application to Irrigation Planning	ISH Journal of Hydraulic Engineering, Taylor & Francis, UK, Vol.18, No.1, pp.54-64. DOI:10.1080/09715010.2012.662428	International	2012
14	D. Nagesh Kumar, FalguniBaliarsingh and K. Srinivasa Raju	Extended Muskingum Method for Flood Routing	Journal of Hydro-environment Research, Elsevier, Vol. 5, No. 2, pp. 127-135. DOI: 10.1016/j.jher.2010.08.003	International	2011
15	K. Srinivasa Raju and D. Nagesh Kumar	Classification of Microwatersheds based on Morphological Characteristics	Journal of Hydro-environment Research, Elsevier, Vol. 5, No. 2, pp. 101-109. DOI: 10.1016/j.jher.2010.09.002	International	2011
16	D. Nagesh Kumar, FalguniBaliarsingh and K. Srinivasa Raju	Optimal Reservoir Operation for Flood Control using Folded Dynamic Programming	Water Resources Management, Springer, Vol. 24, No. 6, pp. 1045-1064. DOI: 10.1007/s11269-009-9485-3	International	2010
17	VenkatRamayya. V, Vinayaka Rao. V. R, Krishnaiah. S	Indigenous development and testing of rotational viscometer for bituminous binders	International Journal of Civil and Structural Engineering, Volume 4 Issue 3 2014, ISSN 0976 – 4399, pp: 286- 294	International	2014
18	Sandra A.K; V.R. VinayakaRao and Sarkar A.K	Road Roughness Modelling with Clustered Data using ANN Approach	International Journal of Civil and Structural Engineering; ISSN 0976-4399, Volume 3 Issue 4, August,2013	International	2013
19	Abhijeet S. Gandage, V. Vinayaka Ram	Role of Supplementary Cementitious Materials in Self Compacting Concrete - A Review	The Indian Concrete Journal, June 2014, Vol 88, No. 6, pp: 42-59	National	2014
20	Vasanth, A and Slobodan P.	Optimization of Water Distribution Networks Using	Journal of Water Resources Planning and Management,	International	2010





	Simonovic	Differential Evolution	ASCE, 136(2), 279-287, 2010		
21	Hyung-Il Eum, A.Vasan and Slobodan P. Simonovic	Integrated Reservoir Management System for Flood Risk Assessment Under Climate Change	Water Resources Management, 26(13), 3785-3802, 2012	Internatio nal	2012
22	Tripathi, Satyendra and A. Vasan	Study of Agroclimatic Conditions of NagarjunaSagar Reservoir to Reduce Vulnerability Using Sustainable Management Pra ctices	Journal of Ecosystem &Ecography, 2 (4), 175, 2012 (doi: 10.4172/2157- 7625.S1.009)	Internatio nal	2012
23	Andre Schardong, Slobodan P. Simonovic and A. Vasan	A Multi-Objective Evolutionary Approach to Optimal Reservoir Optimization	Journal of Computing in Civil Engineering, ASCE, 27(2), 139- 147, 2013	Internatio nal	2013
24	JagadeeshAnmal a, R. H. Mohtar	Cauchy solution of the Kinematic Wave Shallow Water Equations using Square Grid Finite Element Method	ASCE, Journal of Hydrologic Engineering, J. Hydrol. Eng. , 10.1061/(ASCE)HE.1943- 5584.0001241 , 04015042, Published online 5th June 2015	Internatio nal	2015
25	JagadeeshAnmal a, O.W.Meier, A.J. Meier and S.Grubbs	A GIS and an Artificial Neural Network Based Water Quality Model for a Stream Network in Upper Green River Basin, Kentucky, USA	ASCE, Journal of Environmental Engineering, 141(5), 04014082 , DOI: 10.1061/(ASCE)EE. 1943- 7870.0000801.	Internatio nal	2015
26	JagadeeshAnmal a, R. H. Mohtar	Analytical Evaluation of Amplification Factors, Stability and Error Analysis of Square Finite Element (FE) solution for the Kinematic Wave Shallow Water Equations (KWSWE)	ASCE, Journal of Hydrologic Engineering, 19(9), 04014013, DOI: 10.1061/(ASCE)HE.1943- 5584.0000950	Internatio nal	2014
27	JagadeeshAnmal a, V. Kapoor	Dynamics of Mixing and Bimolecular Reaction Kinetics in Aquifers	Stochastic Environmental Research and Risk Assessment, 27, 1005-1020. DOI 10.1007/s00477-012-0679-5.	Internatio nal	2013
28	JagadeeshAnmal a, V. Kapoor	Mixing and Bimolecular Reaction Kinetics in a Plane Poiseulle Flow	Flow, Turbulence and Combustion, 88, 387-405. DOI: 10.1007/s10494-011-9369-5.	Internatio nal	2012
29	JagadeeshAnmal a, R.H.Mohtar	Fourier Stability Analysis of Two-Dimensional Finite Element Schemes for Shallow Water Equations	International Journal of Computational Fluid Dynamics, 25(02), pp.75-94. DOI:10.1080/10618562.2011.5 60572	Internatio nal	2011
30	Rajitha, K., Mukherjee, C. K., VinuChandran, R., & Prakash	Land-cover change dynamics and coastal aquaculture development: a case study in the East Godavari delta,	International Journal of Remote Sensing, 31(16), 4423- 4442.	Internatio nal	2010



	Mohan, M. M.	Andhra Pradesh, India using multi-temporal satellite data.			
31	Raychoudhury, T., Schiperski, F., Scheytt, T	Distribution of Iron in Activated Carbon Composite: Evaluation of Arsenic Removal Behavior	Water Science and Technology: Water Supply.(doi:10.2166/ws.2015.057)	International	2015

SL No	Authors	Title	Details of the Conference	National/International	Year
1	DhruvSood. DigambarKumbhar, and P. N. Rao	Flexural Testing of Fly ash based Cement Composite Panels Reinforced with Varying Number of Mesh Layers	UKIERI concrete congress, 2-5 November 2015, NIT, Jalandhar, India	International	2015
2	VENU MALAGAVELLI , EELAKANTESWARA RAO PATURU	Durability and Strength Characteristics of Fiber Reinforced Concrete	11 <sup>th</sup> International Conference on Concrete Engineering and Technology 2012 (CONCET2012), 12th-13 <sup>th</sup> June, 2012, Putrajaya, Malaysia.	International	2012
3	VenuMalgavelli and Neelakanteswara Rao Paturu	Behavior of HDPE Fiber Reinforced Concrete	International Conference on Current Trends in Technology (NUiCONE2010),09-11 December,2010, Nirma University, Ahmedabad, India	International	2010
4	M. Venu, P. N. Rao and V. Padmavathi	High Performance Concrete: Role of Admixtures	International conference on Materials, Mechanics and Management (IMMM-2010)	International	2010
5	K.Srinivasa Raju, D.Nagesh Kumar	Fuzzy Approach to Rank Global Climate Models	5th International Conference on Fuzzy and Neural Computing (FANCCO 2015), December 17-19, 2015, Hyderabad, India	International	2015
6	V.Swathi, Sai Veena, <b>K.Srinivasa Raju</b>	Urban Growth Simulation: A Case Study	Proceedings of 2nd Two Day National Conference on Water, Environment and Society (NCWES), July 30-31,2015, Hyderabad, India, pp. 612-616	National	2015
7	D.V.Morankar, <b>K.Srinivasa</b>	Optimal Integrated Water Resources Management for	Proceedings of i-Manager's International	International	2015



	Raju, A.Vasan	Khadakwasla Complex Reservoir	Conference on Engineering and Technologies (IICET 2015), April 10-11, 2015, Trivandrum, India, pp.101-106		
8	K.Srinivasa Raju, D.Nagesh Kumar	Role of Performance Indicators and Multicriterion Decision Making Methods in Ranking Global Climate Models	Proceedings of Modeling Tools for Sustainable Water Resource Management, December 28-29, 2014, Hyderabad, India, pp.2	International	2014
9	D.V.Morankar, K.Srinivasa Raju, A.Vasan, L.AshokaVardhan	Application of Particle Swarm Optimization in Multiobjective Irrigation Planning	Proceedings of Hydro 2014 International, December 18-20, 2014, Bhopal, India, pp. 121-126	International	2014
10	K.Srinivasa Raju, D.Nagesh Kumar	Application of Firefly Optimization Algorithm in Irrigation Planning	Proceedings of 4th International Conference on Hydrology and Watershed Management (ICHWAM-2014), October 29-November 1, 2014, Hyderabad, India, pp. 1196-1203.	International	2014
11	K.Srinivasa Raju, D.Nagesh Kumar and SonaliPattanayak	Compromise Programming for Ranking Global Climate Models for India	Proceedings of International Conference on Sustainable Civil Infrastructure (ICSCI-2014), October 17-18, 2014, Hyderabad, India, pp.850-859	International	2014
12	K.Srinivasa Raju and D.V.Morankar	Application of Cluster Validation Indices to Performance Evaluation: A Case Study	Proceedings of Two Day National Conference on Water, Environment & Society (NCWES-2014), June 30-July 1, 2014, Hyderabad, India, pp. 212-218	National	2014
13	K.Srinivasa Raju and D.Nagesh Kumar	Multicriterion Analysis for Selection of General Circulation Models for Malaprabha Catchment	Proceedings of HYDRO 2013 International, December 4-6, 2013, Chennai, India, pp.16-21.	International	2013
14	K. Srinivasa Raju	Decision Making in Multicriterion Perspective: An Overview	Proceedings of National Conference of Sustainable Water Resources Development and Management, September 30-October 1,	National	2013



			2013, Aurangabad, India, pp. 145-152		
15	D.V.Morankar and <b>K.Srinivasa Raju</b>	Integrated Irrigation Planning for Water Scarcity Regions in Fuzzy Environment	Proceedings of National Conference of Sustainable Water Resources Development and Management, September 30-October 1, 2013, Aurangabad, India, pp. 70-76	National	2013
16	D.V.Morankar, <b>K.Srinivasa Raju</b> and D.Nagesh Kumar	Fuzzy Nonlinear Programming in Multiobjective Environment for Irrigation Planning	Proceedings of India Water Week (Efficient Water Management: Challenges and Opportunities), Ministry of Water Resources, Government of India, April 8-12, 2013, New Delhi, India, pp.42.	National	2013
17	P. Sai Kaushik, K. Aditya Kiran, D.V.Morankar and <b>K.Srinivasa Raju</b>	Ranking of Irrigation Systems using Data Envelopment Analysis	National Seminar on Sustainable Technologies in Civil Engineering: Perspectives and Strategies, December 17, 2011, Hyderabad, India.	National	2011
18	K Sravya, D.V.Morankar and <b>K.Srinivasa Raju</b>	Fuzzy Based Performance Evaluation of Irrigation Subsystems	International Conference on Advances in Civil Engineering, October 21-23,2011, Guntur, India,pp. 294-297	International	2011
19	K.Srinivasa Raju and D.Nagesh Kumar	Selection of Suitable Irrigation Planning Strategy using S/N Ratio and TOPSIS	Ninth International Conference on Hydro-Science and Engineering (ICHE 2010), August 2-5, 2010, Chennai, India, pp.646-654	International	2010
20	Abhijeet S. Gandage, V. R. Vinayaka Rao, Rahul Joshi	Comparative Study of Thin Section Petrographic Analysis for Normal Concrete and Self Compacting Concrete	International Conference on Advances in Science and Technology of Concrete, 20-21 December 2013, Mumbai, India, American Concrete Institute, India Chapter	International	2013
21	Abhijeet S. Gandage, V. R. Vinayaka Rao, M. V. N. Sivakumar, A.	Effect of Perlite on Thermal Conductivity of Self Compacting Concrete	2 <sup>nd</sup> Conference of Transportation Research Group of India, 12-15 December 2013, Agra, India. Transportation	National	2013



	Vasan, M. Venu, A. B. Yaswanth		Research Group of India in association with TRB, USA, CRRI - CSIR, India, Transportation and Development Institute-ASCE, East Asia Society for Transportation Studies, Association of Transportation professionals of Indian Origin at Indian Institute of Technology, Kanpur (IIT Kanpur), Volume 104, PP: 188-197		
22	Abhijeet S. Gandage, V. Vinayaka Ram, M. V. N. Sivakumar, A. Vasan, M. Venu, A. B. Yaswanth	Optimization of Class C Flyash dosage in Self Compacting Concrete for Pavement Applications	International Conference on Innovations in Concrete for meeting Infrastructure Challenge, October 23-26 2013, Hyderabad, India, Indian Concrete Institute	International	2013
23	V.VenkatRamaya, V.R.Vinayaka Rao, &S.Krishnaiah	Indigenous development of dynamic shear asphalt rheometer	Paper No: T023, International Conference on Advances in Materials and Techniques for Infrastructure Development (AMTID 2011), NIT Calicut, India, 28-30 September 2011	International	2011
24	Tripathi, Satyendra and A Vasan	Social Equity Impacts of Optimal Water allocation for Irrigation Management: Drivers and Implications	Proceedings of the International Conference on Managing Critical Resources: Food, Energy and Water organized by the Centre for Development and Environment Policy (CDEP), Indian Institute of Management Calcutta, Kolkata, India, April 9-11, 2015	International	2015
25	GanbavaleMan dar. P., Ankit Jain, Vasan A., and Kalyana Rama J	Sustainable design of RC building portal frame through CO <sub>2</sub> emission optimization using Cuckoo Search Algorithm	Proceedings of the International Conference on Sustainable Energy and Built Environment, Organized by School of Mechanical and Building Sciences, VIT, Vellore in	International	2015



			associate with ASCE India Section, March 12-13, 2015		
26	Aaron D Vaz., and Vasan A	Topology Optimization using Bi-directional Evolutionary Structural Optimization	Proceedings of the International Conference on Sustainable Energy and Built Environment, Organized by School of Mechanical and Building Sciences, VIT, Vellore in associate with ASCE India Section, March 12-13, 2015.	International	2015
27	Sanchari Thakur, SatyendraTripathi, A.Vasan, JagadeeshAnamala	Reservoir Inflow Forecasting Using Artificial Neural Networks	Proceedings of the International Conference on Modeling Tools for Sustainable Water Resources Management, IIT Hyderabad, December 28-29, 2014.	International	2014
28	Kalyana Rama J, Reshmi N, M.V.N. Sivakumar, Vasan A	Experimental Investigation on Self Compacting Geopolymer Concrete (SCGC) Incorporating Ground Granulated Blast Furnace Slag (GGBS) by varying the NaOH Molarities	Proceedings of the Eighth Structural Engineering Convention (SEC 2014), Indian Institute of Technology Delhi, 22-24 December 2014.	International	2014
29	GanbavaleMandar. P., Vasan A., Jain Ankit, Kumbhar D. A	Seismic design of multi-storey building using Braced Ductile Shear Bracket	Proceedings of the Eighth Structural Engineering Convention (SEC 2014), Indian Institute of Technology Delhi, 22-24 December 2014.	International	2014
30	Sri Kalyana Rama J, Siva Kumar M. V. N, Vasan A, Chirag Garg, ShubhamWalia	A Review on Studies of Fracture Parameters of Self Compacting Concrete	Proceedings of the Eighth Structural Engineering Convention (SEC 2014), Indian Institute of Technology Delhi, 22-24 December 2014.	International	2014
31	Sri Kalyana Rama J, Sivakumar M V N, Vasan A and Ritesh Reddy K	A Review on Influence of superplasticizers on the strength characteristics of Self- Compacting Concrete	Proceedings of the International Conference on Sustainable Civil Infrastructure, Indian Institute of Technology Hyderabad, 17-18 October 2014.	International	2014
32	Tripathi, Satyendra and A Vasan	Climate Change Vulnerability Assessment Framework for Sustainable River Basin	Proceedings of the National Conference on "Technology, Policy and	National	2014



		Management Approach	Community: Small Experiments in Sustainability” organized by Department of Humanities & Social Sciences, BITS Pilani, Hyderabad Campus, March 14-15, 2014.		
33	Vasan, A, Aaron Darius Vaz, Prasanth Abraham and ReshmiNambiar	Optimisation of self compacting concrete mix design using Bio-Inspired metaheuristic algorithms	Proceedings of the International Conference on Advances in Civil Engineering and Chemistry of Innovative Materials, organized by Department of Civil Engineering, SRM University, Ramapuram Campus, March 13-14, 2014	International	2014
34	L AshokaVardhan and A Vasan	Evaluation of Penalty Function Methods for Constrained Optimization Using Particle Swarm Optimization	Proceedings of Second IEEE International Conference on Image Information Processing Organized by JaypeeUniversity of Information Technology, Waknaghat, Shimla, Himachal Pradesh, India, December 09-11, 2013, pp. 487-492, ISBN-978-1-4673-6099-9.	International	2013
35	Vasan, A	Evaluation of Irrigation Systems Performance Using Multicriterion Approach	Proceedings of India Water Week (Efficient Water Management: Challenges and Opportunities), Organized by Ministry of Water Resources, Government of India, April 08-12, 2013, New Delhi, India, pp. 41.	National	2013
36	KalyanKarthik, N., Sharath Chandra, K., and A Vasan	Application of Firefly Algorithm to Optimization of Water Distribution Systems	Proceedings of National Conference on Sustainable Water Resources Planning, Management and Impact of Climate Change, Organized by Centre of Excellence in Water	National	2013



			Resources Management, Department of Civil Engineering, BITS Pilani, Hyderabad Campus, April 05-06, 2013, Hyderabad, India, pp. 127		
37	Tripathi, Satyendra and A Vasan	Global Peace a Climate Change Conflict: A Gandhian Approach	Proceedings of Gandhirama 2012: A Feast of Ideas and a Festival of Art, August 17-22, 2012, Published by Indian Council of Philosophical Research, New Delhi, India, pp. 169.	National	2012
38	Vasan, A and AshokaVardhan	Self-adaptive Differential Evolution Algorithm for Pipe Network Optimization	Proceedings of Asia Oceania Geosciences Society AOGS-AGU (WPGM) Joint Assembly, August 13-17, 2012, Singapore, pp. 115.	International	2012
39	Vasan, A	Particle Swarm Optimization for Design of Water Distribution Systems,	Proceedings of International Conference on Mathematical and Computation Methods in Science and Engineering, June 27-28, 2012, Paris, France.	International	2012
40	Gupta, R., Rajitha, K., Basu, S., & Mittal, S. K	Application of GIS in Crime Analysis: A Gateway to Safe City	14th Annual international conference and exhibition on geospatial information technology and applications	International	2012
41	Prakash Mohan, M. M & Rajitha, K	Satellite Based Temperature Mapping: A Case Study of Hyderabad City During the Period 1999-2013	Proceedings of national conference on "Sustainable Water Resources Planning, Management and Impact of Climate Change" held at BITS-Pilani, Hyderabad Campus on April 5-6, 2013.	National	2013
42	Rajitha K , Prakash Mohan M M, Murari R. R. Varma	Determination of potable water availability index using remote sensing and GIS: A case study of Hyderabad City	Proceedings of International Symposium on Integrated Water Resources Management, 19-21, February 2014, CWRDM, Kozhikode, India	International	2014
43	Prakash Mohan	Design optimisation of	Proceedings of	International	2014





	M. M., Rajitha K., Murari R. R. Varma	telescopic sub-mains in Drip Irrigation System	International Symposium on Integrated Water Resources Management, 19-21, February 2014 , CWRDM, Kozhikode, India		
44	K., Rajitha; M.M, Prakash Mohan; Varma, Murari R.R	Effect of cirrus cloud on normalized difference Vegetation Index (NDVI) and Aerosol Free Vegetation Index (AFRI): A study based on LANDSAT 8 images	Advances in Pattern Recognition (ICAPR), 2015 Eighth International Conference on , vol., no., pp.1,5, 4-7 Jan. 2015. <a href="http://dx.doi.org/10.1109/ICAPR.2015.7050710">http://dx.doi.org/10.1109/ICAPR.2015.7050710</a>	International	2015
45	<u>Raychoudhury, T.</u> , Sursani, V. K	Retention of surface modified-NZVI particle in porous media and its implication	Interpore, 7 <sup>th</sup> International conference on porous media, <b>May 18-21, Padova, Italy</b>	International	2015
46	SaranaHasanth K, Vasan A, <b>Kalyana Rama J S</b>	Optimizing the strength characteristics of Self Compacting Concrete using ANN and Genetic Algorithm	KIERI Concrete Congress 2015, NIT Jalandhar, Nov 2-5, 2015	International	2015
47	DarshanPuajara , M Santosh Kumar, <b>Kalyana Rama J S</b>	Experimental study on the effect of Recycled Aggregates on the strength characteristics of GGBS based Geopolymer Concrete	UKIERI Concrete Congress 2015, NIT Jalandhar, Nov 2-5, 2015	International	2015
48	Bharat Reddy R, Sai GopiNihal, Taneja A, <b>Kalyana Rama J S</b>	Comparative Study on the Lateral load Resistance of Multi-storied Structure with Bracing Systems	International Conference on Sustainable Technologies in Building & Environment (ICSTBE-2015), Chennai, 15-17 July 2015.	International	2015
49	Kalyana Rama J.S, Grewal B.S	Evaluation of efficiency of Non-Destructive Testing methods for determining the strength of concrete damaged by fire	Structural Engineering Convention (SEC-2014), December 22-24,2014, IIT Delhi. .	International	2014
50	Sudheer K, <b>Kalyana Rama J S</b> , Muthu Lakshmi. K	Influence of Size Effect on Fracture properties of Concrete-Computational Approach	5 <sup>th</sup> International Congress on Computational Mechanics and Simulation (ICCMS-2014), December 10-13,2014, CSIR-SERC.	International	2014
51	ArkamitraKar, Indrajit Ray, Udaya B.	MICROSTRUCTURAL CHARACTERIZATIONS OF ALKALI-ACTIVATED FLY ASH	UKIERI CONCRETE CONGRESS, Nov 2 - 5, 2015. Place: NIT	International	2015



	Halabe, Avinash Unnikrishnan, and Ben Dawson-Andoh	AND/OR SLAG BINDER SYSTEM	Jalandhar, Punjab, India.		
52	Naveen James., & Sitharam, T. G	Macro-Level Assessment of Seismically Induced Landslide Hazard for the State of Sikkim, India Based On GIS Technique	International Symposium on Geohazards and Geomechanics ISGG2015 - Conference Series: Earth and Environmental Science (Vol. 26, No. 1, p. 012027). IOP Publishing. doi:10.1088/1755-1315/26/1/012027	International	2015

**23. Details of patents and income generated NONE**

**24. Areas of consultancy and income generated**

Areas of consultancy: Structural Engineering and Concrete Technology, Highway material testing, Environmental Engineering, Geodesy, Remote Sensing and GIS, Geotechnical Engineering, Hydraulics and Fluid Mechanics

Income generated: NONE

**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**

**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

Prof. K S Raju is currently serving as:

- Associate Editor, ISH Journal of Hydraulic Engineering, Taylor & Francis, U.K
- Member, Board of Studies in Civil Engineering for six institutions, namely, (i) VNR Vignanjyothi Institute of Engineering & Technology, Hyderabad; (ii) Chaitanya Bharathi Institute of Technology, Hyderabad; (iii) Rajeev Gandhi Memorial College of Engineering and Technology, Nandyal; (iv) Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad; (v) Osmania University College of Engineering, Hyderabad; (vi) Vasavi College of Engineering, Hyderabad.
- Member, Board of Studies, Water Resources Engineering, Jawaharlal Nehru Technological University, Hyderabad



Dr.ArkamitraKar is the recognized reviewer, Construction and Building Materials (ELSEVIER)

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members.

As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level. Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

Apart from this following faculty attended various workshops/ events for professional growth.

Prof K S Raju has:

- Participated in Workshop on Planning and Delivering Flipped Classes Using MOOC Platforms, Birla Institute of Technology and Science, Pilani-Hyderabad Campus on July 10, 2015.
- In addition, delivered 21 invited lectures at various workshops and conferences.

Dr.Murari R R Varma has

- Participated in Faculty Design Workshop for faculty as part of Technology Entrepreneurship Programme - An initiative Indian School of Business (ISB), Hyderabad in collaboration with Andhra Pradesh Society of Knowledge Networks held on 28th and 29th March, 2014



- Participated in Faculty Development Workshop(FDW) 2015 - An initiative Indian School of Business (ISB), Hyderabad in collaboration with Andhra Pradesh Society of Knowledge Networks held on 7th and 8th February, 2015

Prof Jagadeesh Anmala took part as a PS-I faculty at Servomax, India Pvt. Ltd and Lexicon Infotech Ltd., Hyderabad from May 22<sup>nd</sup> to July 16<sup>th</sup> 2015.

Dr.Murari R R Varma took part in Industry immersion programme at Worley Parsons India, Hyderabad Office from May 25 to June 25 2015.

## 28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects**

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.

- **percentage of students doing projects in collaboration with other universities /industry / institute**

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

## 29. Awards / recognitions received at the national and international level by Faculty

Prof K S Raju has received following awards/recognitions.

- Outstanding Reviewer, Journal of Hydrologic Engineering, American Society of Civil Engineers (ASCE), USA for the year 2014
- Elsevier Reviewer Recognition from the Editors of Advances in Water Resources in Recognition of the Review made for the Journal
- Best paper award for the paper entitled Optimal Integrated Water Resources Management for Khadakwasla Complex Reservoir (Session-III), i-Manager International Conference on Engineering and Technologies (IICET-2015), held at Trivandrum, India during April 11-12, 2015. Co-authors for the paper are D V Morankar and A. Vasan
- Awarded S.N.Gupta Memorial Award for Research Contribution to the field of Water Resources Engineering by Indian Society for Hydraulics. Award was given during



inaugural session of HYDRO-2014 International Conference, MANIT Bhopal on December 18, 2014.

- Dr.ArkamitraKar has received 2015 BITS OPERA award

**Doctoral / post doctoral fellows: NIL**

Students

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

Prof K S Raju and Prof A Vasan have organized following workshops and conferences:

- Workshop on Research Methodology, Centre of Excellence in Water Resources Management, Department of Civil Engineering, Birla Institute of Technology and Science, Pilani-Hyderabad Campus, April 3-4, 2015 (Sources of funding: National and institute support); **Meant for research scholars; Prof D Nagesh, Indian Institute of Science, Bangalore delivered an invited lecture.**
- Co-Ordinator, Workshop on Research Methodology, Centre of Excellence in Water Resources Management, Department of Civil Engineering, Birla Institute of Technology and Science, Pilani- Hyderabad Campus, April 11-12, 2014. (Sources of funding: National and institute support); **Meant for research scholars**
- National Conference on Sustainable Water Resources Planning, Management and Impact of Climate Change, Centre of Excellence in Water Resources Management, Department of Civil Engineering, Birla Institute of Technology and Science, Pilani-Hyderabad Campus, April 5-6, 2013. (Sources of funding: National and institute support); **Prof PP Mujumdar and Prof D Nagesh Kumar of IISc Bangalore; Prof AK Sarma, IIT Guwahati; Prof K Srinivasan and Prof KP Sudheer of IIT Chennai.**
- Workshop on Recent Advances in Climatic Modeling for Water Resources Planning and Management, Centre of Excellence in Water Resources Management, Department of Civil Engineering, Birla Institute of Technology and Science, Pilani-Hyderabad Campus, November 19, 2011. (Sources of funding: National and institute support)

**31. Code of ethics of research followed by the Department.**

The department follows code of ethics policy of the Institute.



**32. Student profile programme-wise:**

Applications Received	Name of the Programme	Selected		Pass percentage	
		Male	Female	Male	Female
<b>2010-11</b>					
14662	UG	53	6	100%	100%
<b>2011-12</b>					
12880	UG	46	5	100%	100%
4571	PG	5	2	100%	100%
461	PhD	2	0	100%	100%
<b>2012-13</b>					
15714	UG	41	14	100%	100%
4825	PG	7	1	100%	100%
1173	PhD	0	0	100%	100%
<b>2013-14</b>					
15120	UG	53	4	100%	100%
5549	PG	9	1	100%	100%
964	PhD	6	3	100%	100%
<b>2014-15</b>					
18717	UG	59	8	100%	100%
5172	PG	4	4	100%	100%
773	PhD	1	2	100%	100%

**33. Diversity of students\***

Name of the Programme (refer to question no. 4)	% of students from the Same university	% of students from other universities within the State	% of students from universities outside the State	% of students From other countries
ME Structural Engineering	0	30	70	0

\*\*This is the approximate data given. The department does not maintain the records for this.

**34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

- Attaluri Alankrutha (2008A2PS322H) cleared Civil Services.
- Approximately 3 to 4 students clear GATE each year.
- We do not capture this data through any formal process



**35. Student progression**

Student progression		Percentage against enrolled*
UG to PG		Approx 20%
PG to M.Phil.		Unable to answer
PG to Ph.D.		Unable to answer
Ph.D. to Post-Doctoral		Unable to answer
Employed		65% (through campus selection)
☒	Campus selection	
☒	Other than campus recruitment	Approx 15%
Entrepreneurs		

\* \*This is the approximate data given. The department does not maintain the records for this.

**36. Diversity of staff**

Percentage of faculty who are graduates	
of the same university	13.33
from other universities within the State	6.67
from universities from other States	80

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : Five**

**38. Present details of departmental infrastructural facilities with regard to**

- a. Library : CEWRM under the department has one library consisting of 60 books. Apart from the central library houses nearly 700 books.
- b. Internet facilities for staff and students : Medium speed internet facility
- c. Students' laboratories
  - Geotechnical/Soil Mechanics Lab
  - Hydraulics & Fluid Mechanics Lab
  - Highway & Material Testing Lab
  - Environmental Engineering Lab
  - Geographical Information Systems Lab
  - Structural Engineering Lab
  - Geodesy Lab
  - Concrete Lab
- d. Research laboratories: CEWRM (Center of Excellence in Water Resource



Management)

**39. List of doctoral, post-doctoral students and Research Associates**

- c) from the host institution/university
- d) List of doctoral students: Swathi
- e) from other institutions/universities : NONE
  - SatyendraTripathi
  - Nagababu I
  - R Madhuri
  - Salghuna
  - Chaitanya Jasti
  - SaratbabuKambam
  - Shruthi

**40. Number of post graduate students getting financial assistance from the university.100%**

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Discussion was held at department level as well as feedback from various experts regarding the necessity of initiating ME Water Resources Engineering. This is also supported by the market demand as well as career growth for students. The same was discussed at the University level through the Senate. Accordingly, it was approved after extensive deliberations.

**42. Does the department obtain feedback from**

- **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

The department obtains the feedback from faculty through departmental meetings, DCA, CCDCA and then utilizes the feedback in improving the curriculum and teaching-learning-evaluation continuously. Peer feedback is also collected from the faculty by the institute and is shared later with the faculty for possible improvements.

- **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Instruction Division (ID) collects the feedback from students for every course/instructor and sends it to the instructor and HOD. Accordingly, the HOD discusses with the instructor regarding feedback score. The department also collects the feedback from students with the help of class committee meetings and





is utilized by continuously updating the curriculum, teaching-learning-evaluation through meetings.

- alumni and employers on the programmes offered and how does the department utilize the feedback?

Placement office collects the feedback from the employers/companies and sends the feedback to faculty-in-charge of placements of the department. This will be informed to HOD and accordingly the department utilizes the feedback strengthening the courses based on industry needs.

BITSAA conducts alumni meetings and the feedback is collected during those meetings from alumni.

**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

**Civil Engineering Association Activities**

S No	Date	Event	Remarks
1	28.09.2012	Guest Lecture by Priyanka Patra from BASF	Introduction of BASF-Admixture, Repair, Strengthening, Flooring, Waterproofing, Expansion Joints etc.
2	28.09.2012	Guest Lecture by Priyanka Patra from BASF	Sustainable Building Solution
3	5.10.2012	Mr. Santosh A C from BASF	Repair and Rehabilitation using Fibre Reinforced Polymer
4	26-10.2012	Technical session by Autodesk	Session was on Revit architecture
5	27.10.2012	Paper presentation competition	Related to civil Engineering
6	22.4.2013	Guest Lecture by Prof. B P Chandra shekhar	Focus of the lecture was on PMGSY and its implementation
7	10-10.13 to 13.10.13	Technical presentation competition	Topic was on techniques of disaster management
8	28.11.13	Technical presentation by Mr Sameer from	Topic was on Smart materials for construction



		Ultratech cement ltd.	
9	28.11.13	Release of newsletter	GIS and soft computing applications on water resource management.
10	26-02.14 to 5.03.2014	Workshop on STAAD PRO	Resource persons are Mr Kalyan Rama and Mr Praveen
11	22.10.14 to 23.10.14	Tall Buildings Design Workshop	It involved learning about how a tall structure is erected and the physics that goes behind it
12	25.9.14	Build it Bigger Screening	The CEAorganised the screening of the 'Build It Bigger' episode on the ChhatrapatiShivaji International Airport in Mumbai.
13	31.9.14 to 1.10.14	Revit architecture workshop	Autodesk REVIT Architecture finds application in designing structures with accurate measurements.
14	10.10.14 to 12.10.14	Cantilever way	The headliner event of the CEA in ATMOS, organised by Civil Simplified, happened across 3 days, 10 <sup>th</sup> , 11 <sup>th</sup> and 12 <sup>th</sup> of October.
15	10.10.14	Bob the green builder	An event conceptualized to create awareness about the requirement of eco-friendly buildings, 'Bob - The Green Builder' was held on 10 <sup>th</sup> October 2014 during ATMOS.
16	11.10.14	Urbanismo	Urbanismo was held on 11 <sup>th</sup> October as a part of our technical fest ATMOS '14
17	12.10.14	Paper and Poster Presentation	This ATMOS, the Civil Engineering Association saw a brilliant display by the budding researchers of the college in both of its presentation events, held on 12th October.

**45. List the teaching methods adopted by the faculty for different programmes.**

For UG & PG:

1. Using black board
2. Using projectors, power point presentations
3. Demonstrating physical models in the class rooms
4. Laboratory based one-to-one learning
5. Conducting class room seminars by the students for assignments, term projects, projects to enable them to understand the best teaching practices
6. Using Tele-presence facility to other campuses

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

HOD ensures that all the courses' objectives are met as well as learning outcomes are met. This is achieved through continuous interaction with the faculty and students. In addition the feedback from Instruction Division also helps to monitor the same. The department also ensures using DCA and CCDCA meetings. For example, each course in a programme has certain course objectives. By ensuring that the lecture plan meets the



course objectives in a systematic way, the programme objectives are eventually met and learning outcomes are monitored.

**47. Highlight the participation of students and faculty in extension activities.**

The students and faculty participate as volunteers of Nirmaan& NSS and contribute to the society by finding technical solutions to the grass-root level problems. The initiatives have taken place in the domains of livelihood, education, community welfare, socio-technologies.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

- Workshop on Research Methodology during 2014, 2015.
- National Conference on Sustainable Water Resources Planning, Management and Impact of Climate Change during 2013.
- Workshop on Recent Advances in Climatic Modeling for Water Resources Planning and Management 2011

• **Civil Engineering Association Activities**

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15	10.10.14	Bob the green builder	An event conceptualized to create awareness about the requirement of eco-friendly buildings, 'Bob - The Green Builder' was held on 10th October 2014 during ATMOS.
16	11.10.14	Urbanismo	Urbanismo was held on 11th October as a part of our technical fest ATMOS '14
17	12.10.14	Paper and Poster Presentation	This ATMOS, the Civil Engineering Association saw a brilliant display by the budding researchers of the college in both of its presentation events, held on 12th October.

**Details of some of the above events:**

**TALL BUILDINGS WORKSHOP:** A workshop on tall buildings was held during 21<sup>st</sup>-23<sup>rd</sup> September as a pre-ATMOS event. It involved learning about how a tall structure is erected and the physics that goes behind it. The workshop was not only restricted to theoretical knowledge, but the software taught gave us a practical knowledge of designing tall buildings. Mr. Vinay, the speaker, taught us how to use SAP2000, and as an incentive for us to learn, he conducted a competition on the third and final day of the workshop which was won by Varun Sanghavi.

**BUILD IT BIGGER SCREENING:** The Civil Engineering Association (CEA), on the 25<sup>th</sup> of September, organised the screening of the 'Build It Bigger' episode (source: the Science Channel) on the ChhatrapatiShivaji International Airport in Mumbai. The event was well-attended by faculty and students of Civil Engineering from all batches as well as students from other branches.

The episode discussed the need for the expansion of the airport to reduce the congestion on the existing one. The uniquely shaped mega-structure was designed in



innovative ways that allowed greater strength, durability and increase in accommodation capacity. The screening was followed by a question and answer session. The answers given to students' queries by the faculty members - Prof. Vinayak Ram VR, Prof. P.N.K. Rao, Dr. Trishiki Raychoudhury and Miss J.U.K. Aishwarya - thrilled the students about the upcoming technologies and innovations in Civil Engineering.

**REVIT ARCHITECTURE WORKSHOP:** The CEA organised a two-day workshop on 'Autodesk REVIT Architecture' as a pre-ATMOS event, which took place on 31<sup>st</sup> September and 1<sup>st</sup> October. Autodesk REVIT Architecture finds application in designing structures with accurate measurements. A great variety of things used in construction - from walls and beams and flooring, to windows, grills, furniture, etc. - is available in the program. The basic reason for its usage is to create an exact virtual version of a structure before actually building it.

The workshop, conducted by Bhumit Dahiya, saw great attendance by the students, who enthusiastically learnt all the functions that were taught and also went ahead and created new structures on their own.

**CANTILEVER WAY:** The headliner event of the CEA in ATMOS, organised by Civil Simplified, happened across 3 days, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> of October. The event witnessed packed rooms and participation of students both from campus and outside.

On the first day, the organisers from Civil Simplified interacted with the students and gave a presentation regarding different types of bridges. The necessary software was installed and the various relevant features were demonstrated to the students. The next day, the students - in teams of two - were asked to design their very own bridges using their own design skills. All the related queries were comprehensively cleared by the instructor. Special attention was given to the first-year students as they had the most to learn. After completing the design, students had to fabricate it using wood sticks and gum.

The evaluation was done on the final day, 12<sup>th</sup> of October. The winning criteria for the 'Best Design' award was the efficiency of the bridge (ratio of the maximum load to mass of the bridge). Pujith Goud and Ranjit Patil walked off with the lucrative cash prize, having made a 13 gram bridge which managed to hold an 18kg weight. Teams with best innovation and best fabrication were also felicitated.

**BOB THE GREEN BUILDER:** An event conceptualized to create awareness about the requirement of eco-friendly buildings, 'Bob - The Green Builder' was held on 10<sup>th</sup> October 2014 during ATMOS. It included planning of a non-residential institutional



campus with a set of given constraints, to be constructed in a hot & dry climate anywhere in India. Everything from the feasibility of the green technology used, to optimum use of power was required. And to make the institution locally appealing it had to include local architecture and culture. Taking all these factors into account, V.Bharath Reddy, P.ShivaKumar were determined to be the winners, by Dr.Murari R R Varma.

### **URBANISMO**

Urbanismo was held on 11<sup>th</sup> October as a part of our technical fest ATMOS '14. Conducted by the Civil Engineering Association, Urbanismo was an open competition involving the problems and complications faced by an urban city. The objective of the event was to solve these problems - like traffic, electricity overload and water shortage - in the best and most economical way, through efficient urban planning. A problem statement was given to each of the teams and the best plans as judged by Prof. V VinayakaRam, came from the team of ManjeethKolli, Bharath Reddy Rondla, Sudeep and Taneja, who thus won the first prize.

### **PAPER AND POSTER PRESENTATION**

This ATMOS, the Civil Engineering Association saw a brilliant display by the budding researchers of the college in both of its presentation events, held on 12th October - the final day of the fest. With a total of over 20 teams participating, research and poster topics ranged from precast concrete to software development in civil engineering, and even a study of the Hyderabad Metro Rail. Green building seemed to be the order of the day, however, as our eminent CEA faculty - Prof. K Srinivas Raju, Dr.TrishikhiRaychoudhury and Dr.CahnduParimi - judged the winners of the paper presentation to be:

- 1st - Arvind Sunder (Research on bioconcrete)
- 2nd - ManjeethKolli and Bharath Reddy Rondla (Study of Green Buildings Revolution)
- 3rd - Ayesha Syeda (Case study on bamboo as a green building material)
- Poster presentation was won by Bharath Reddy Rondla (1st) and ManjeethKolli (2nd), on the same topic as their paper presentation.

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL**

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

Most of the faculty members publish papers in international journals of good impact factor as well as books published by well known publishers. Department conducts conferences, workshops on a regular basis which generate knowledge in



the form of guest lectures and interaction with experts. In addition, number of experts from industry & academia deliver lectures.

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>STRENGTHS:</b></p> <ul style="list-style-type: none"> <li>• Well qualified faculty in diverse areas</li> <li>• Faculty with industrial exposure</li> <li>• Good and quality teaching labs at UG level</li> <li>• Center of Excellence (CEWRM) with the department</li> <li>• Quality undergraduate students in aptitude, skills</li> </ul>	<p><b>WEAKNESSES:</b></p> <ul style="list-style-type: none"> <li>• Lack of research infrastructure</li> <li>• Not able to attract industrial consultancy</li> <li>• Number of higher degree students and programs are less</li> <li>• Limited access to reputed, international journals</li> </ul>
<p><b>OPPORTUNITIES:</b></p> <ul style="list-style-type: none"> <li>• ME Wilp programme</li> <li>• Well qualified science and engineering faculty in other departments for interdisciplinary collaboration</li> <li>• More industrial collaboration with PS and industry immersion</li> <li>• Exposure to in-campus construction activities for both the students and faculty</li> <li>• Flexibility of the system</li> </ul>	<p><b>CHALLENGES:</b></p> <ul style="list-style-type: none"> <li>• Ability to attract quality higher degree students and research scholars</li> <li>• To motivate undergraduate students</li> <li>• To attract industrial consultancy</li> </ul>

**52. Future plans of the department.**

- Start PG programs in Water resources, Transportation
- To complete DST-FIST program successfully
- To generate revenue through consultancy activities
- To expand the UG program
- To strengthen PG and PhD programs
- To widen the activities of the CEWRM by making them more interdisciplinary in nature

**53. Any other information regarding your department which you would like to include.**

Department has passion and ability to grow by considering above SWOC. The



department provided academic support to Madanapalle institute of technology, Madanapalle by revising their course structure and academic assistance in the form of developing course handouts.





## HYDERABAD Campus: Evaluative Report of the Department COMPUTER SCIENCE & INFORMATION SYSTEMS

1. **Name of the Department :** Computer Science & Information Systems Department
2. **Year of establishment of the Department:** 2008
3. **Is the Department part of a School/Faculty of the university?**

Departments function as independent entities in the university and are not part of any school or faculty.

4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc**

UG Programs:	<ul style="list-style-type: none"> <li>• B.E. (Hons.) Computer Science</li> <li>• M.Sc. (Tech.) Information Systems</li> </ul>
PG Programs:	<ul style="list-style-type: none"> <li>• M.E. Computer Science</li> <li>• Integrated M.E. Computer Science (with Specialization in Information Security)</li> </ul>
Ph.D.	

5. **Interdisciplinary programmes and departments involved:** NIL
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.

7. **Details of programmes discontinued, if any, with reasons** NIL
8. **Examination System:** Semester wise and choice based credit system
9. **Participation of the department in the courses offered by other departments**
  - 1) PHA G510 Applications of Statistics & Computer Information (Pharmacy)
  - 2) EEEF241 Microprocessors & Interfacing (EEE)
  - 3) ESC263 Microprocessor Programming & Interfacing (EEE)
  - 4) CS ZG623 Advanced Operating Systems (WILP)
  - 5) SS ZG562 Software Engineering & Mgt (WILP)
  - 6) IS ZC332 Database Systems & Applications (WILP)
  - 7) IS ZC424 Software for Embedded Systems (WILP)



- 8) SSZG514 Object Oriented Analysis & Design (WILP)
- 9) BITS ZC411 Object Oriented Programming (WILP)
- 10) SS ZG518 Database Design & Applications (WILP)
- 11) ESLTZC424 Software for Embedded Systems (WILP)
- 12) SSZG513 Network Security (WILP)
- 13) IS ZC 351 Computer Org & Architecture (WILP)
- 14) SSZG 527 Cloud Computing (WILP)
- 15) SSZG 531 Pervasive Computing (WILP)
- 16) BITS ZC 461 Software Engineering (WILP)
- 17) CS ZG526 Distributed Computing (WILP)
- 18) SSZG 653 Software Architecture (WILP)

**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note**	1	1
Associate Professors		3	3
Asst. Professors		3	3
Lecturers		8	7
Visiting Faculty		2	2

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No of year	No. of Ph.D./M.Phil. students guided in the past 5 years
Chittaranjan Hota	PhD	Professor	Analytics, IoT, Networks, Security	25	Completed:3 Ongoing:6
R.Gururaj	PhD	Associate Professor	Databases, Information Systems, WSN	15	Completed:1 Ongoing:1
N.L.Bhanu Murthy	PhD	Associate Professor	Machine Learning, Software Intelligence & Engineering	16	Completed:0 Ongoing:2



Anand M. Narasimhamurthy	PhD	Associate Professor	Pattern Recognition, Optimization	9	Completed:0 Ongoing:0
G Geethakumari	PhD	Assistant Professor	Information security, Cloud Computing, Cloud Security	15	Completed:1 Ongoing:5
Aruna Malapati	PhD	Assistant Professor	Big Data, Data Mining, Information Retrieval, Bio Informatics	11	Completed:0 Ongoing:5
Tathagata Ray	PhD	Assistant Professor	Computational Geometry, Graphics	9	Completed:0 Ongoing:2
Mr. KCS Murti	ME	Visiting Faculty	Embedded Systems, Spatial Technologies	41	0
Mr. Abhishek Thakur	ME	Visiting Faculty	Mobile App, Computer Networks, Multimedia, Cloud Computing	18	0
Mrs. Rakhee	MTech	Lecturer	WSN, Disaster Management, Routing Protocol	14	0
Mrs. Prafulla Kalapatapu	MTech	Lecturer	Data Mining, Information Retrieval	12	0
Mr. Rakesh Prasanna Chennupati	MTech	Lecturer	Computer Graphics, Software Engineering, Data Mining	6	0
Mr. Digambar Powar	MTech	Lecturer	Cloud Computing, Digital Forensics	12	0
Mr. Surender Singh Samant	MTech	Lecturer	Data Mining, Information Retrieval	10	0
Mr. Gokul Kannan Sadasivam	MS	Lecturer	Networks Security	6	0
Mr. Sanjeev Kumar Singh	MTech	Lecturer	Algorithms, Information Retrieval	3	0

## 12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

- Mr. S. Sai Sushant Samudrala (Guest Faculty, Freelancer)
- Prof.V. Balakista Reddy (Guest Faculty from NALSAR University of Law, Hyderabad)

## 13. Percentage of classes taken by temporary faculty – programme-wise information

- B.E. (Hons.) Computer Science : 0%
- M.Sc. (Tech.) Information Systems: 0%
- M.E. Computer Science: 0%
- Integrated M.E. Computer Science (with Specialization in Information Security): 4% (Approx.)



**14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)**

**UG Programs:**

B.E. (Hons.) Computer Science: 27.56:1

M.Sc. (Tech.) Information Systems: 6.69:1

M.E. Computer Science: 2:1

Integrated M.E. Computer Science (with Specialization in Information Security): 1.25:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Technical (actual): 5

Administrative (actual):1

**16. Research thrust areas as recognized by major funding agencies**

Distributed Systems and Information Security, Data Management, Software Engineering, Artificial Intelligence, Machine Learning, and Computer Graphics.

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects:**

**a) National:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Efficient peer-to-peer overplay infrastructure for secure computing over the internet	Prof.Chittaranjan Hota	UGC	10.38800	2011-2014 3years
2	Automated Detection of Security and Privacy Threats in Peer-to-Peer Networks	Prof.Chittaranjan Hota	DeitY	61.95000	2012-2015

**Ongoing projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
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1	Design and Development of Digital Forensic Tools for Clouds IaaS	Dr. G.Geetha Kumari	DeitY	54.96000	2014-2017 2years
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**B) International: NIL**

C) Totals Grants received : Rs 1,27,29,800 ~127.298 Lakhs

**18. Inter-institutional collaborative projects and associated grants received**

- a) National collaboration – NIL
- b) International collaboration – NIL

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

NIL

**20. Research facility / centre with**

- state recognition: Nil
- national recognition: Nil
- international recognition: Intel Embedded Systems Lab sponsored by Intel

**21. Special research laboratories sponsored by / created by industry or corporate bodies**

- Intel Embedded Systems Lab sponsored by Intel

**22. Publications:**

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	36
2	Monographs	1
3	Chapters in Books	0
4	Edited Books	0
5	Books with ISBN with details of publishers	0
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	34
7	Citation Index – range / average	5.83 (avg of 12)
8	SNIP	0.8702(avg of 13)
9	SJR	6.694 (avg of 13)
10	Impact Factor – range / average	1.27 (avg of 8)
11	h-index	11 (avg of 3)

**Details of the publications as per the number give above (Give details in the last five**



years

SL No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	K. Haribabu and Chittaranjan Hota	Securing Peer-to-Peer Overlays from Multiple Identity Forgery Attacks	International Journal of Advanced Engineering and Applications (IJAEA)	International	2010
2	V Mohanty, Dhaval Moliya, Chittaranjan Hota, and M Rajarajan	Secure Anonymous Routing for MANETs Using Distributed Dynamic Random Path Selection	Lecture Notes in Computer Science (LNCS 6122)	International	2010
3	Sirish Kumar, Haribabu K, and Chittaranjan Hota	Enhanced Search in Peer-to-Peer Networks using Fuzzy Logic	Lecture Notes in Computer Science (LNCS 5966)	International	2010
4	Chittaranjan Hota, Gaurav K, Prasanna G, Sathya M, Hrushiksha Mohanty, and Muttukrishnan Rajarajan	Improved Object Lookup in Unstructured Peer-to-Peer Overlay Networks	Communications in Computer and Information Science (CCIS 269), Springer	International	2011
5	Chittaranjan Hota, Filippo Ledda, and Giuliano Armano	A Resilient Voting Scheme for Improving Secondary Structure Prediction	Lecture Notes in Artificial Intelligence (LNAI 7080), Springer	International	2011
6	Chittaranjan Hota, Sunil S, M Rajarajan, and Srijith Nair	Capability-based Cryptographic Data Access Control in Cloud Computing	International Journal of Advanced Networking and Applications	International	2011
7	Gaurav K, G Prasanna, and Chittaranjan Hota	Probabilistic Routing using Queuing Theory for MANETs	International Journal of Wireless and Mobile Networks	International	2011
8	S Bansal, and Chittaranjan Hota	Efficient Refinery Scheduling Heuristics in Heterogeneous Computing Systems	Journal of Advances in Information technology	International	2011



9	S Bansal, B Kothari, and Chittaranjan Hota	Dynamic task scheduling in grid computing using prioritised round robin algorithm	International Journal of Computer Science	International	2011
10	Dhaval M, Rusheel Jain, Vakul Mohanty, and Chittaranjan Hota	Probabilistic Anonymous Routing in Mobile Ad-Hoc Networks	Special Issue of International Journal of Computer and Communications Technology (IJCTT)	International	2011
11	G Geethakumari and Agrima Srivastava	Big Data Analysis for Implementation of Enterprise Data Security	International Journal of Computer Science, Information Technology, & Security (IJSITS)	International	2012
12	G Geethakumari and Abha Belorkar	Regenerating Cloud Attack Scenarios using LVM2 based System Snapshots for Forensic Analysis	International Journal of Cloud Computing and Services Science (IJ-CLOSER)	International	2012
13	Rakhee, Sai P, Phaneendra M.B.Srinivas	Evaluation of WSN Protocols on a Novel PSoC-Based Sensor Network	Springer LNCS	International	2012
14	Kayiram Kavitha, Cheemakurthi Ravi Teja and Dr.R.Gururaj	WORKLOAD-AWARE TREE CONSTRUCTION ALGORITHM FOR WIRELESS SENSOR NETWORKS	International journal on applications of graph theory in wireless ad hoc networks and sensor networks(GRAPH-HOC)	International	2012
15	Vikram Nunia, Bhavesh Kakadiya, Chittaranjan Hota, and M Rajarajan	Adaptive Task Scheduling in Service Oriented Crowd using SLURM	Lecture Notes in Computer Science (LNCS 7753)	International	2012
16	Sreeja T, Chittaranjan Hota, and A. Yla Jaaski	Tag-based Improved Search in Peer-to-Peer Overlays	Int. J. Computer Applications	International	2012
17	Haribabu K, Chittaranjan Hota, and A Paul	GAUR: A method to detect Sybil groups in Peer-to-Peer overlays	Int. J. Grid and Utility Computing	International	2012



18	Chittaranjan Hota, Vikram Nunia, and Antti Yla-Jaaski	Distributed Algorithms for Improving Search Efficiency in P2P Overlays	International Journal of Computer Network and Information Security, IJCNIS	International	2012
19	Rusheel Jain, and Chittaranjan Hota	Resilient GIA	International Journal of Computer and Communication Technology, IJCT	International	2012
20	Kayiram Kavitha, Dhruv Sharma, Rahul Suran and Dr.R.Gururaj	Induced Redundancy based Lossy Data Compression Algorithm	International Journal of Computer Applications	International	2013
21	Shanti Swaroop Moharana, Rajadeepan D. Ramesh & Digambar Powar	Analysis of Load Balancers in Cloud Computing	International Journal of Computer Science and Engineering (IJCE)	International	2013
22	Murali P, and Chittaranjan Hota	Sector Based Multicast Routing Algorithm for Mobile Ad-Hoc Networks	International Journal of Wireless & Mobile Networks(IJWMN)	International	2013
23	K P Krishna Kumar and G Geethakumari	A Taxonomy for Modeling and Analysis of Diffusion of (mis)information in Social Networks	International Journal of Communication Networks and Distributed Systems, Inderscience Publishers	International	2013
24	K P Krishna Kumar and G Geethakumari	Identifying Sources of Misinformation in Online Social Networks	Springer: Advances in Intelligent and Soft Computing Journa	International	2013
25	K P Krishna Kumar and G Geethakumari	Analysis of Semantic Attacks in Online Social Networks	Springer: Communications in Computer and Information Science Series (CCIS)	International	2013
26	K Singh, Sharath Chandra G, A Thakur, and Chittaranjan Hota	Big Data Analytics Framework for Peer-to-Peer Botnet Detection using Random Forests	Information Sciences Journal, Elsevier	International	2014





27	Sunita Bansal, and Chittaranjan Hota	Hybrid Multi-objective WorkFlow Scheduling on Utility Grids	INFOCOMP Journal of Computer Science	International	2014
28	Pratik Narang, Chittaranjan Hota and V N Venkatakrishnan	PeerShark: Flow-clustering and conversation-generation for malicious peer-to-peer traffic identification	EURASIP Journal on Information Security	International	2014
29	K P Krishna Kumar and Geethakumari G	Detecting Misinformation in Online Social Networks using Cognitive Psychology	Springer Journal: Human-centric Computing and Information Sciences - HCIS-D	International	2014
30	Digambar Powar and Geethakumari G	A Heuristic Model for performing Digital Forensics in Cloud Computing Environment	Security in Computing and Communications: Springer, Communications in Computer and Information Science	International	2014
31	Agrima Srivastava and Geethakumari G	Quantifying direct trust for private information sharing in an Online Social Network	Proceedings in the Journal Advances in Intelligent and Soft Computing (Springer) Series	International	2014
32	K P Krishna Kumar and Geethakumari G	Analysis and Modeling of Semantic Attacks in Online Social Networks	International Journal of Trust Management in Computing and Communications (IJTMCC)	International	2014
33	KP Krishna Kumar, Agrima Srivastava and Geethakumari G	A Psychometric Analysis of Information Propagation in Online Social Networks using Latent Trait Theory	Journal of 'Computing', Springer publishers	International	2014
34	Digambar Powar, Saibharath, G.Geethakumari	Real-time digital forensic triaging for cloud data analysis using MapReduce on Hadoop framework	International Journal of Electronic Security and Digital Forensics, Inderscience Publishers	International	2014



35	Agrima Srivastava and G Geethakumari	Privacy Landscape in Online Social Networks	International Journal of Trust Management in Computing and Communications, Inderscience Publishers	International	2014
36	Kayiram Kavitha, Vinod P, Sreeja T and Dr.R.Gururaj	Energy Efficient Query Processing for WSN based on data Caching and Query Containment	International Journal of Computer Applications	International	2014
37	Chittaranjan Hota	<u>Quality of Service in IPVPNs</u> (Research Monograph)	LAP Lambert, Germany	International	2011

### Conferences

No.	Authors	Title of the Publications	Details of the Conference	National/International	Year
1	B K S P Kumar Raju and G Geethakumari	A Model for Trust Enhancement in Cloud Computing	Proceedings of the IEEE International Conference on Computing and Communication Technologies– ICCCT2014, December 11-13, 2014, India, Proceedings in IEEE Explore	International	2014
2	B K S P Kumar Raju and G Geethakumari	A Novel Approach for Incident Response in Cloud Using Forensics	Proceedings of the ACM COMPUTE 2014, October 9-11, 2014, India, Proceedings in ACM Digital Library	International	2014
3	Digambar Powar and G Geethakumari	A Heuristic Model for performing Digital Forensics in Cloud Computing Environment	Security in Computing and Communications: Springer, Communications in Computer and Information Science, Volume 467, 2014, pp 341-352	International	2014
4	Saibharath S and G Geethakumari	Design and Implementation of a forensic framework for	Proceedings of the IEEE International Symposium on Cloud Computing: Architecture, Applications and Approaches	International	2014



		Cloud in Openstack cloud platform	(CCA-2014), September 24-27, 2014, India, IEEE Explore and A & I Databases		
5	Agrima Srivastava and G Geethakumari	Quantifying direct trust for private information sharing in an Online Social Network	Proceedings of the International Symposium on Intelligent Informatics (ISI'14), September 24-27, 2014, India; Proceedings in the Journal Advances in Intelligent and Soft Computing (Springer) Series	International	2014
6	Agrima Srivastava and G Geethakumari	A Privacy Settings Recommender System for Online Social Networks	Proceedings of the IEEE International Conference on Recent Advances & Innovations in Engineering – (ICRAIE-2014), May 09-11, 2014, India	International	2014
7	Agrima Srivastava, K P Krishna Kumar and G Geethakumari	Preserving privacy in online social networks using the graph structural analysis	Proceedings of the International Conference on Advances in Computing, Communications and Information Science, ACCIS - 14, June 26 - 28, 2014, India, Proceedings in Elsevier India	International	2014
8	K P Krishna Kumar, G. Geetha Kumari and Agrima Srivastava	Preventing Disinformation Cascades using Behavioural Trust in Online Social Networks	Proceedings of the International Conference on Advances in Computing, Communications and Information Science, ACCIS - 14, June 26 - 28, 2014, India, Proceedings in Elsevier India	International	2014
9	K P Krishna Kumar and G Geethakumari	Identifying Sources of Misinformation in Online Social Networks	Proceedings of the International Symposium on Signal Processing and Intelligent Recognition Systems, (SIRS-2014), March 13-15, 2014 Technopark, Trivandrum, India, Proceedings in Springer Series: Advances in Intelligent and Soft Computing Journal, Special Volume, pp 417 - 428, Best paper award	International	2014
10	K P Krishna Kumar and	Analysis of	Proceedings of the International	International	2014



	G Geethakumari	Semantic Attacks in Online Social Networks	Conference on Security in Computer Networks and Distributed Systems (SNDS-2014), March 13-14, 2014 Technopark, Trivandrum, India, Proceedings in Springer Series: Communications in Computer and Information Science Series (CCIS), ISSN: 1865:0929	al	
11	Pratik Narang, Kunal Mehta, and Chittaranjan Hota	Game-theoretic Patrolling Strategies for Intrusion Detection in Collaborative Peer-to-Peer Networks	International Conference on Secure Knowledge Management in Big Data Era (SKM 2014), Dubai, Dec 2014	International	2014
12	S Gokul Kannan, and Chittaranjan Hota	Efficient Detection of Malwares using Low-interaction Honeypots	National Conference on Intelligent Systems, Computing and Information Technology (NCICIT'14), 4th-5th April 2014, Anna University, Tiruchirappalli, TN, India, April, 2014	National	2014
13	Pratik Narang, A Thakur, and Chittaranjan Hota	HaDeS: A Hadoop-based Framework for Detection of Peer-to-Peer Botnets	20th International Conference on Management of Data (COMAD 2014), Demo and Poster Track, Hyderabad, Dec 2014	International	2014
14	Balaji Venkat, and Chittaranjan Hota	Efficient Cooperative Spectrum Sensing in Cognitive Radio using Coalition Game Model	IEEE International Conference on Contemporary Computing and Informatics (iC3I), Mysore, IEEE Xplore, Nov 2014	International	2014
15	Abhishek Thakur, and Chittaranjan Hota	Designing an Extensible Communication Platform for Rural Area	3rd International Conference on Advances in Computing, Communications and Informatics (ICACCI 2014), New Delhi, Sept 2014	International	2014



16	Pratik Narang, Vansh Khurana, and Chittaranjan Hota	Machine-learning Approaches for P2P Botnet Detection using Signal-processing Techniques	8th ACM International Conference on Distributed Event-Based Systems (DEBS'14), ACM SIGMOD/SIGSOFT, Mumbai, India, pp. 338-341, May 2014	International	2014
17	Pratik Narang, Subhajt Ray, Chittaranjan Hota, and Venkat Venkatakrishnan	PeerShark: Detecting Peer-to-Peer Botnets by Tracking Conversations	35th IEEE Symposium on Security and Privacy (IEEE S&P 2014, IWCC), San Jose, CA, May 2014	International	2014
18	Puskar Gupta, Aruna Malapati, Maitreya Natu, Vaishali Sadaphal	Toward Predictable Batch Systems Using What-If Analysis	21st annual IEEE International Conference on High Performance Computing (HiPC 2014), Goa, India, Dec 2014	International	2014
19	Smart Triggers: Using Analytic for Smart Alerting	Praveen Venkateswaran, Aruna Malapati, Maitreya Natu, Vaishali Sadaphal	21st annual IEEE International Conference on High Performance Computing (HiPC 2014), Goa, India, Dec 2014	International	2014
20	A Delaunay based optimal meshing technique from point cloud data	Tathagata Ray, Chandu Parimi	Proc. 5th International Congress on Computational Mechanics and Simulation, 10-13th Dec 2014, Chennai India	International	2014
21	Aruna Malapati, N.L. Bhanu Murthy	Performance of students across assessment methods and courses using Correlation analysis	IEEE International Conference on MOOC, Innovation and Technology in Education (MITE) 2013, (to appear in IEEE explorer) Dec 20-23, 2013, Jaipur, India	International	2013
22	Muthukumar Kasinathan, Lalita Bhanu Murthy Neti, Karthik Reddy Gakkidi, Aruna Malapati	Comparative study on effectiveness of standard bug prediction	5th IBM Collaborative Academia Research Exchange (I-CARE 2013), ACM Digital Library, Oct 17-19, 2013, IIT, Delhi, New Delhi, India	International	2013



		approaches			
23	Agrima Srivastava and G Geethakumari	A Framework to Customize Privacy Settings of Online Social Network Users	IEEE International Conference on Recent Advances in Intelligent Computational Systems RAICS 2013, India	International	2013
24	Digambar Powar and G Geethakumari	A Novel approach to detect Cloud Virtual Machines hidden using Alternate Data Streams	IEEE International Mutli-Conference on Automation, Computing, Communication, Control and Compressed Sensing (iMac4s) to be held on March 22-23, 2013, India	International	2013
25	A. Muthulakshmi and Dr. G.Geethakumari	Secure Broker Inter Cloud Model for Seamless Resource Access	4th International Conference on Information and Communication Systems (ICICS 2013) - 1st International workshop on Cloud Computing Applications and SEcurity (CASE-2013), Irbid, Jordan, April 23 - 25, 2013 (to appear in the ACM Digital Library and in DBLP)	International	2013
26	Kayiram Kavitha, Polsani Rajashree Rao, Sreeja Tummala, Gajarla Vasavi , and Dr.R.Gururaj	Dual Tree Data Routing Scheme for Wireless Sensor Networks	The Third International Conference on Advances in Information Technology and Mobile Computing (AIM-2013), Bengaluru, India, April	International	2013
27	Sunita Bansal, and Chittaranjan Hota	Goodwill based scheduling algorithm for economy grid	3rd IEEE International Advance Computing Conference, New Delhi, India, Feb 2013, IEEE Digital Explore	International	2013
28	KP Krishna Kumar and G Geethakumari	Information Diffusion Model for Spread of Misinformation in Online Social Networks	IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI-2013), August 22-25, 2013, Mysore, India	International	2013
29	K P Krishna Kumar and	Modeling	Proceedings of the IEEE	International	2013



	G Geethakumari	Semantic Attacks in Social Networks	International Conference on Informatics, Electronics and Vision (ICIEV), May 17 - 18, 2013, Dhaka, Bangladesh		
30	Agrima Srivastava and G Geethakumari	Measuring Privacy Leaks in Online Social Network	Proceedings of the IEEE ICACCI-2013: Proceedings of the International Symposium on Women in Computing and Informatics (WCI-2013), August 22 - 25, Mysore, India, 2013, pp 1172 - 1177	International	2013
31	Pratik Narang, Jagan Mohan Reddy and Chittaranjan Hota	Feature Selection for Optimizing Detection of P2P Botnet Traffic	The 6th ACM India Computing Convention on Next Generation Computing Paradigms and Technologies, ACM Digital Library, 22nd-24th August 2013, (ACM Compute 2013), India	International	2013
32	Abhishek Thakur and Chittaranjan Hota	Sustainable Wireless Internet Connectivity for Rural Areas	International Symposium on Green Networks and Distributed Systems, GNDS 2013, ICACCI 2013, 22nd-24th August 2013, Mysore, India	International	2013
33	Murali P, V Rastogi, and Chittaranjan Hota	A Virtual-force based Multicast Routing Algorithm for Mobile Ad-hoc Networks	Fifth International Conference on Ubiquitous and Future Networks 2013, (ICUFN 2013), July 2013, Vietnam, IEEE Xplore (Excellent Paper Award)	International	2013
34	Vikram Nunia, Bhavesh Kakadiya, Chittaranjan Hota and M Rajarajan	Adaptive Task Scheduling in Service Oriented Crowd using SLURM	International Conference on Distributed Computing and Internet Technologies (ICDCIT 2013), Lecture Notes in Computer Science (LNCS 7753), pp.373-385 (2013)	International	2013
35	Chittaranjan Hota, Vikram Nunia, Mario Di Francesco, Jukka K. Nurminen and A. Y. Jaaski	Enhanced Search in Unstructured Peer-to-Peer Overlay Networks	8th International Conference on Grid and Pervasive Computing, , Seoul, KOREA, Arabnia H.R, Kim C, Shi W, Gil J (Eds), Lecture Notes in Computer Science 7861, May 2013	International	2013



36	Murali P and Chittaranjan Hota	Arbitration-based Reliable Distributed Mutual Exclusion for Mobile Ad-hoc Networks	11th International Symposium on Modeling and Optimization in Mobile, Ad-hoc and Wireless Networks (WiOpt 2013), Tsukuba, Japan, May 2013, IEEE Xplore	International	2013
37	Chittaranjan Hota, Vikram Nunia, Mario Di Francesco, Jukka K. Nurminen, and A. Y. Jaaski	Enhanced Search in Unstructured Peer-to-Peer Overlay Networks	8th International Conference on Grid and Pervasive Computing, Seoul, Korea, Lecture Notes in Computer Science, May 2013	International	2013
38	Jagan Mohan Reddy, and Chittaranjan Hota	<u>P2P Traffic Classification using Ensemble Learning</u>	5th IBM Collaborative Academia Research Exchange(I-CARE 2013), IBM, New Delhi, India, ACM Digital Library, Oct 2013	International	2013
39	Soumya S Chatterjee, Jatin Jani, and Dr. R. Gururaj	Task Dependency Identification and Dependency-Aware Scheduling for Lazy-Parallel Calls	2012 International Conference on Information Engineering, Singapore, <i>Lecture Notes in Information Technology, pp. 141-147, Vol.25</i>	International	2012
40	Soumya S Chatterjee and Dr. R. Gururaj	Overhead-Aware Compositon of Parallel Components Using Lazy-Parallel Function Calls	International Conference on Advances in Mobile Network, Communication and its Applications – MNCApps 2012 , Aug 01-02, 2012 in Bangalore, India	International	2012
41	Kayiram Kavitha, Cheemakurthi Ravi Teja and Dr.R.Gururaj	Workload-Aware Path Repairing Scheme for Wireless Sensor Networks	The Seventh International Conference on Industrial and Information Systems (ICIIS-2012) held at Indian Institute of Technology Madras (IITM), Chennai, India, August 2012	International	2012
42	K.C.S. Murthy	Adapting	Proceedings of CCSIT 2012	International	2012





		Temporal Aspects to Static GIS Models			
43	Digambar Powar and G Geethakumari	Digital Evidence Detection in Virtual Environment for Cloud Computing	International Conference on Security of Internet of Things - SecurIT2012, Aug 17-19, 2012, India (ACM Digital Library)	International	2012
44	Usha Diwakarla and G Geethakumari	A Trust Based Generic Security Framework for Cloud Service Models	International Conference and Workshop on Emerging Trends in Technology (ICWET 2012), Feb. 24 – 25, 2012, India	International	2012
45	Ms.Prafulla Kalapatapu, Aruna.M	Smart Playlist generation using data mining techniques	International Conference on Advanced Computing, Networking and Security (ADCONS' 11), LNCS 7135, p. 217, 2012	International	2012
46	Rakhee, Sai Phaneendra P, M.B.Srinivas	Evaluation of WSN Protocols on a Novel PSoC-Based Sensor Network	ICECCS-2012, August 9-11, Springer LNCS, Cochin, Kerala (Best Paper Award Nomination)	International	2012
47	Soumya S. Chatterjee and R. Gururaj	Lazy-Parallel Function Calls for Automatic Parallelization	In the Proc. of the CIIT 2011, Pune, India, 2011. pp. 811–816	International	2011
48	S Bansal, and Chittaranjan Hota	Efficient Algorithm on Heterogeneous Computing Systems	International Conference on Recent Trends in Information Systems (ReTIS 2011), Jadavpur University, Kolkata, Dec 2011, pp. 57-61, India, IEEE Xplore	International	2011
49	K Haribabu, Arindam Pal, Chittaranjan Hota	Detecting Sybils in P2P Overlays using Psychometric	IEEE International Conference on Advanced Information Networking and Applications (AINA), Singapore, March 2011	International	2011



		Analysis Methods			
50	Rusheel Jain, Murali P, and Chittaranjan Hota	An Efficient On-demand Routing Protocol for MANETs using Bayesian Approach	International Conference on Communication Systems and Networks (COMSNET 2011), Bangalore, January 2011	International	2011
51	Abha Belorkar,G Geethakumari	Regeneration of events using system snapshots for cloud forensic analysis	Proceedings of the IEEE INDICON 2011, Dec 16 – 18, 2011, India	International	2011
52	Samyuktha Challa,G Geethakumari and CSN Prasad	Patient Data Viewer – An Android Application for Healthcare	Proceedings of the IEEE INDICON 2011, Dec 16 – 18, 2011, India	International	2011
53	M. Sree vani, Aruna Malapati, O. Yaswanth Babu	Web Index Recommendations	IEEE International Conference on Knowledge Engineering 2011 (ICKE-2011)	International	2011
54	RakheeMohiddin, ManojKumar, ShashiKumar Palakurty, SurabhiBothra, Sai Phaneendra P, M.B. Srinivas, NarayanaPidugu, Karthikeyan Mahalingam,Patrick Kane	Building a Sensor Network with PSoC	International Conference on Sensing Technology, ICST 2011, November 28 - December 1, 2011, New Zealand	International	2011
55	Rakhee, D Manoj Kumar, P Shashi Kumar, Surabhi Bothra, P Sai Phaneendra, M B Srinivas, M Karthikeyan,Patrick Kane	Evaluation of a PSoC-Based Sensor Network Test-Bed	IEEE SENSORS 2011, University of Limerick, Limerick, October 28-31, 2011, Ireland	International	2011
56	K.C.S. Murthy	A simplified	Proc ICCCS 2011, pp48	International	2011



		GeoDRM model for SDI services			
57	Sunil Sanka, Chittaranjan Hota, and M Rajarajan	Secure Data Access in Cloud Computing	Proc.of IEEE IMSAA, Bangalore, Dec 2010	International	2010
58	K. Haribabu, D Arora, B Kothari, and Chittaranjan Hota	Detecting Sybils in Peer-to-Peer Overlays using Neural Networks and CAPTCHAs	International Conference on Computational Intelligence and Communication Networks (CICN 2010), Nov 2010, Bhopal, India, IEEE Xplore	International	2010
59	Murali P, Challa A, Kasyap M R, and Chittaranjan Hota	A Generalized Energy Consumption Model for Wireless Sensor Networks	International Conference on Computational Intelligence and Communication Networks (CICN 2010), Nov 2010, Bhopal, India, IEEE Xplore	International	2010
60	Sunil Chakravarthy, and Chittaranjan Hota	Secure Resilient High Performance File System for Distributed Systems	Proc.of IEEE ICCCT, Sept 2010, MNNIT, Allahabad, India, IEEE Xplore	International	2010
61	Murali P, and Chittaranjan Hota	A Novel Permission-based Reliable Distributed Mutual Exclusion Algorithm for Mobile Ad-hoc Networks	Proc. of Seventh IEEE International Conference on Wireless and Optical Communication Networks (WOCN 2010), Sept 2010, Colombo, Sri Lanka, IEEE Xplore	International	2010
62	Anantha saradhi, Rakhee, P. Sankar Ganesh	A Wireless Sensor Network Approach to Monitor Process Temperature in	International Conference on Mobile Internet Devices, ICMID 2010, December 17-18, 2010, Hyderabad	International	2010



		Composting Heaps			
63	Rakhee, M.B. Srinivas	A Reconfigurable Sensor Network Test Bed for Flood Monitoring	IEEE TENCON 2010, Special session on "Women In Engineering", 21-24 November 2010, Fukuoka, Japan	International	2010
64	P.Sai Phaneendra,Rakhee,V.S reehari,N.Moorthy Muthukrishnan,M.B.Srinivas,Patrick Kane	A Reconfigurable sensor network for disaster management	IEEE SENSOR 2010, November 1-4, Hawaii, USA	International	2010
65	Vasanth Iyer, K. Srinathan, G. Ramamurthy, S.S. Iyengar, Rakhee and M.B. Srinivas	INSPIRE: Intelligent Network Sensor Processing Information using Resilience Encoded Hash	International Conference on Sensor Technologies and Applications, SENSORCOMM, July 18 - 25, 2010 , Venice, Italy	International	2010
66	Vasanth Iyer, K. Srinathan, G. Ramamurthy, S.S. Iyengar, Rakhee and M.B. Srinivas	Intelligent Networks Sensor Processing of Information using Key Management	International Conference on Sensing Technology, ICST 2010, June 3-5, Lecce, Italy	International	2010
67	Rakhee, M.B. Srinivas	Sensor Network Testbed for Flood Monitoring	National Conference on Sustainable Water Resource Management (SWRM), March 5-6, 2010, BITS-Pilani, Hyderabad Campus, Hyderabad	International	2010

**23. Details of patents and income generated: NIL**

**24. Areas of consultancy and income generated**

Educational Consultancy on Curriculum Development and Faculty Training for Institute of Technology and Science, Madanapalle, AP.



**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**

Prof. Chittaranjan Hota, was selected as Visiting Professor, Department of Computer Science & Engineering, Aalto University, Finland & University of Tartu, Estonia in May-June 2012 (Funded by European Commission).

Prof. Chittaranjan Hota, was selected as Visiting Professor, Department of Electronics and Computer Engineering, University of Cagliari, Cagliari, Italy in May-June-July 2011 (Funded by Italian Ministry of Education, Italy).

Prof. Chittaranjan Hota, was selected as Visiting Professor, School of Engineering & Mathematical Sciences, City University, London in June-July 2010 (Funded by UKIERI, London)

**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

National Committees NIL International Committees NIL

Editorial Boards Dr. Tathagata Ray is an Editorial Board Member for the Journal of Computational Design and Engineering, Hosted by Elsevier.

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level.

Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.



Following faculty members attended various workshops for their professional progression.

Sl.	Name of the faculty	Workshop Details	Venue	Period
1	Mr. Abhishek Thakur	MAAS360 now unit of IBM. Virtualization-cloud computing as part of Industry immersion	Bangalore	May-June 2014
2	Mr. Digambar Powar	"Faculty Residency Program on Cloud Computing" organized by IBM Pune	Pune	June 25 - June 27, 2014
3	Mr. Gokul Kannan	"Cyber Security Workshop" conducted by IBM Innovation Center, Bangalore	Bangalore	4th-6th June, 2014
4	Mr. Rakesh Prasanna	Workshop on research methodology organized by center of excellence in water resources management, Department of civil engineering, BITS Pilani Hyderabad Campus	Hyderabad	April 11-12, 2014
5	Mr. Rakesh Prasanna	Research promotion workshop on introduction to graph and geometric algorithm organized by TIFR and IIITMK	IIITMK	22-Jan to 24 Jan 2014
6	Ms. Prafulla Kalapatapu	3rd COMPMUSIC workshop conducted by COMPMUSIC group from University of Pompeu, Fabra, Barcelona.	IITM at Chennai	Dec 14th to 17th 2013.
7	Dr. Aruna Malapati	Cloudera Developer Training for Apache Hadoop	Bangalore	June 2013
8	Dr. Chittaranjan Hota	Intel Embedded Education and Research Summit 2013	Chandler, Arizona, United States of America (USA).	Feb 2013 (one week)
9	Dr. Aruna Malapati and Dr. N. L. Bhanu Murthy	International Workshop on Data Analytics & Applications	BITS-Pilani, K K Birla Goa Campus, Goa	26th February - 1st March 2013.
10	Dr. Chittaranjan Hota	Cloud computing and Big-data".	Microsoft Faculty Summit 2012 at Redmond, United States of America (USA)	15th July to 17th July 2012
11	Ms. Rakhee	Advance School on Graph Algorithms (ASGA-2012), conducted	Goa	July 23-27th, 2012.



		by K.K.Birla Goa Campus.		
12	Dr. N. L. Bhanu Murthy	TECS Week (Cyber-Physical Systems)	Pune	Dec 2011
13	Mr. Abhishek Thakur	OFDM Based 4G Cellular Standards: LTE and WiMAX Organized by Dept. of Electrical Engineering, IIT Kanpur and BSNL-IITK Telecom Center of Excellence.	IIT Kanpur	May 2011
14	Mr. Abhishek Thakur, Mr. Digambar Powar, Mr. Rakesh Prasanna,	Intensive Teaching Workshop organized by BITS Pilani, Hyderabad Campus	Hyderabad	Sep-Oct 2011
15	Ms. Rakhee	Workshop on Ubiquitous Computing "UBICOMP INDIA-2010", organized by CDAC Chennai	Chennai	29-30th January, 2010.
16	Ms. Rakhee	National Workshop on simulation of Networks using NS-2 (NWSN- 2010) conducted by Institute of Science & Technology for Advanced studies & Research, organized by ISTAR Gujrat.	Vadodara	24-25th September, 2010.

## 28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.

- percentage of students doing projects in collaboration with other universities /industry / institute

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

## 29. Awards / recognitions received at the national and international level by

### Faculty

Prof. Chittaranjan Hota, Jury member, Dynamic CISO Excellence Awards 2014, Grey Head Media; Ernst & Young, Mumbai, Oct 2014



**Students:**

Pranava Rama Rao, Siddharth Dash and K.Muthukumaran under supervision of Prof. N.L.Bhanu Murthy won ADTRAN 2015 Senior Design Showcase award.

Kodali Naveen, received MITACS Golbal link scholarship to do summer intern at Canada.

Aditya Chandrasekhar, received Viterbi-India Scholarship for summer internship at USA.

Tejas Nagendra and Siddharth Dalmia, received DAAD scholarship to do summer intern at Germany and France

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

Sl.	Name of The Seminars/ Conferences/Workshops	Source of Funding	Dates and Venue
1	Symposium on Information Security , Securing Network, Devices and Applications	BITS Pilani, DeitY	15th and 16th November 2013, CSIS Department, BITS Pilani Hyderabad Campus
2	International Workshop on Information Security	CSIR, DST, and CA Technologies	15-19th Dec 2012, CSIS Department, BITS Pilani Hyderabad Campus

**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.

**32. Student profile programme-wise:**

**2010**

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
UG – B.E.(Hons.) Computer Science)	14662	61	41	100%	100%
UG – M.Sc.(Tech) Information Systems		31	16	100%	100%
PG – M.E. (Computer Science)	4428	05	02	100%	100%
PhD	425	00	00	100%	100%
<b>2011</b>					
UG – B.E.(Hons.) Computer Science)	12880	88	38	100%	100%
UG – M.Sc.(Tech)		38	17	100%	100%





Information Systems					
PG – M.E. (Computer Science)	4571	13	00	100%	100%
PhD	461	11	01	100%	100%
<b>2012</b>					
UG – B.E.(Hons.) Computer Science)		78	36	100%	100%
UG – M.Sc.(Tech) Information Systems	15714	40	10	100%	100%
PG – M.E. (Computer Science)	4825	04	03	100%	100%
PhD	1173	01	03	100%	100%
<b>2013</b>					
UG – B.E.(Hons.) Computer Science)		124	30	100%	100%
UG – M.Sc.(Tech) Information Systems	15120	0	0		
PG – M.E. (Computer Science)	5549	4	1	100%	100%
PF- M.E. (Computer Science with Info Sec)		8	2	100%	100%
PhD	964	5	2	100%	100%
<b>2014</b>					
UG – B.E.(Hons.) Computer Science)	18717	165	44	100%	100%
UG – M.Sc.(Tech) Information Systems		0	0		
PG – M.E. (Computer Science)	5172	4	4	100%	100%
PF- M.E. (Computer Science with Info Sec)		4	6	100%	100%
PhD	773	0	0	100%	100%

### 33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
PG	Nil	10%*	90%*	Nil



Ph.D	5%	27.7%	55.5%	11.11%

\*This is the approximate data given. The department does not maintain the records for this.

**34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

5 students have cleared GATE.

**35. Student progression**

Student progression	Percentage against enrolled
UG to PG PG to M.Phil.	20%* Not Applicable
PG to Ph.D. Ph.D. to Post-Doctoral Employed <ul style="list-style-type: none"> <li>• Campus selection</li> <li>• Other than campus recruitment</li> </ul>	Nil Nil 91.08%
Entrepreneurs	2% *

\*This is the approximate data given. The department does not maintain the records for this.

**36. Diversity of staff**

Percentage of faculty who are graduates	
of the same university	6.25
from other universities within the State	25
from universities from other States	68.75

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

One faculty received Ph.D in the year 2014-15.

**38. Present details of departmental infrastructural facilities with regard to**

a) Library - Institute has a central library facility with around 2806 books related to the area.



- b) Internet facilities for staff and students –  
The department has a leased line of 249 Mbps to cater to the needs of the students and staff.
- c) Students' laboratories :  
The department has 4 (IPC-1 - IPC-4) Laboratories with a total of 267 systems. The labs for courses like C-programming, Object Oriented Programming, Data Structure and Algorithms, Computer Architecture, Computer Networks, Operating systems, Database Management Systems, Compiler Design etc. will be conducted in these laboratories.
- d) Research laboratories:  
The department has 4 laboratories, one lab dedicated to UG thesis students, one for PG students and one for research scholars. The department also has an Intel lab where students work on embedded systems related projects.

### **39. List of doctoral, post-doctoral students and Research Associates**

- a) from the host institution/university: **Doctoral Students**
1. Mr.Pratik Narang
- b) from other institutions/universities: **Doctoral Students**
1. Mrs.Prafulla Kalapatapu
  2. Mr.Rakesh Prasanna Chennupati
  3. Mr.Digambar Powar
  4. Mr.Surender Singh Samant
  5. Mr.Gokul Kannan Sadasivam
  6. Mr.Abhishek Thakur
  7. Mr.D.Jagan Mohan Reddy
  8. Mr.Agrima Srivastava
  9. Mr.Muttu Kumaran
  10. Ms.G.Sai Kiranmai
  11. Ms.T.Anitha
  12. Ms.Neha Singh
  13. Mr.B.K.S.P Kumar Raju
  14. Ms.G.Meera
  15. Ms.D.Radha Rani
  16. Mr.Balaji.V
  17. Mr.Rajesh Kumar Srivastava



**40. Number of post graduate students getting financial assistance from the university.**

All the post graduate students are offered financial aid either through the teaching assistantship or in the form of fee waiver.

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

We follow the following process before the development of new programmes.

We discuss the requirement and need of the new programme within the department internally. The programme structure in terms of courses, learning outcomes will be well discussed and a draft structure of the programme will be prepared. And the same will be discussed with cross campus team as well. We will revise the program structure as per comments / suggestions by cross campus team.

We will deliberate on the programme contents and its outcomes with professionals from industry as well as academic experts. And the suggestions will be incorporated accordingly. We will also visit few colleges / universities to judge interest level of students about the programme. Finally the proposal for the new programme will be put up in senate for its approval. We followed the above stated methodology for our new program Integrated M.E.(Computer Science with Information Security Specialization).

**42. Does the department obtain feedback from**

- **faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Two committees are constituted to take feedback / suggestions from faculty on curriculum and get the relevant changes done to curriculum. The first committee, Departmental Committee on Academics (DCA) is a local committee with three members (including Head of Department) as approved by director. This committee is constituted once for every two years. This committee takes feedback / suggestion from faculty on curriculum.

The second Committee, Cross Campus Departmental Committee on Academics (CCDCA) has members across all four campuses and the members of this committee are selected by the respective campus directors. All feedback / suggestions collected by DCA are discussed in CCDCA meeting and all accepted action items are forwarded to senate for necessary approvals.

- **students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**



Students give feedback on each course about the concerned faculty, evaluation and teaching. This activity is taken up every semester and is conducted by Instruction Division. And the same is shared with concerned faculty and Head of Department to enhance overall teaching experience in the department.

The department also constitutes class committees for each programme year wise. This committee will have at least five members from each of the programme and the faculty who are teaching them. The student members of this committee will be elected by the class.

This committee meets twice in a semester to assess the quality of instruction/evaluation / other academic issues of the class and strives to improve overall learning experience. The students' feedback would help the faculty members to take corrective measures as and when required. This would also help in creating environment for providing constructive suggestions both-ways.

The class committee discusses issues concerning the courses taught to the students such as:

- Quality of class-room instruction, tutorial exercises, home assignments and laboratory experiments
  - Laboratory facilities and equipment
  - Examinations, quality of question papers, evaluation of answer scripts, and timely distribution of answer books after evaluation as is required in a system of continuous assessment
  - Class attendance of students
  - Any indiscipline in the class (lecture, tutorial, and laboratory)
  - possible electives to be offered in the subsequent semester
- **alumni and employers on the programmes offered and how does the department utilize the feedback?**

The Placements division gets the feedback from all the employers who come for campus recruitment and shares this with the head of department. Based on the feedback, the department takes corrective measures to enable students to take up the current needs and challenges of the industry. In the past there were many workshops organized by the department to help students employable.

BITSAA is a very active alumni association having its global presence and it meets regularly. During these interactions the department takes the feedback from this elite group to check the standards of the existing programs, need for any changes or to introduce new programs.



**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- 1) Equity Market Structure - Speed, Efficiency & Transparency – Mr Venu Palaparthi, COO & CCO, Instinet, USA, 24/8/2011.
- 2) Ad Hoc Network Design and Development Strategies for Social Networks – Prof Sanjay Srivastava, DAIICT, Gandhi Nagar, Gujarat, 26/3/2011.
- 3) Pattern Oriented Software Architecture – Dr K R V Subramanian, CEO Radix Learning, Bangalore, 5/4/2011.
- 4) How to integrate Mathematica into your classroom and research – Sonali DeSouza, Wolfram Research Inc, USA, 16/2/2011.
- 5) Robotics: multiple moving objects, with applications ranging from semiconductor fabs to lab-on-a-chip devices , Prof Srinivas Akella, University of North Carolina, USA, 13/1/2011.
- 6) Entrepreneurship challenges – Dr D.N Rao, General Secretary, VNRVJIT, Hyderabad, 25/4/2011.
- 7) Guest Lecture by Prof Amit Sheth, Wright State University, on 17-01-2012, on “Knowledge enabled Computing”.
- 8) Dr Srinivasa Ramaswamy, ABB Research, Bangalore, on 27-02-2012, gave a talk on “The Future of Engineering and Automation: Opportunities and Challenges”
- 9) Information Security Awareness workshop by cyber security experts from CDAC, Hyderabad on 23/08/2012
- 10) Cyber Security workshop was conducted in collaboration with Tallinn University of Technology, Estonia, on 2/10/2012.
- 11) International workshop on Information Security (IWIS-2012) was held during 15-19, December 2012.
- 12) Prof Venkata Krishnan, Assoc Prof Univ of Illinois, Chicago, Technical talk on 10-01-2013.
- 13) Prof. (Ms) Magda, UC Irvine, on “Game Technology”, on 11-01-2013.
- 14) Prof Jukka K Nurminen, on “Energy efficient distributed computation on Mobile”, 09-02-2013.
- 15) Mr.ES Chakravarthy, Mr. MS Reddy, TCS, talk on “Technology/Market/Future IT”, 11-02-2013.
- 16) A series of talks by Dr. Vaishali Sadaphal, Scientist, TRDDC Pune, on “Performance & capacity management in Data centers using data mining”, 13,14 April-2013.



- 17) Organized many guest talks including "Guest lecture by Dr. Kaushik Dutta, Assistant Professor, School of Computing, NUS, Singapore on research opportunities on 13th Sept 2013 from 4 to 5pm".
- 18) Mr. B. Ganapathi Subramaniam, Chief Security Officer, Microsoft Corporation India Pvt Ltd. Title: Building Cyber Resilience.
- 19) Prof. H. Krishna Murthy, Chief Research Scientist, SERC, IISc. Bangalore, Title: Security in Distributed Systems.
- 20) Prof. Ranjan Bose, Microsoft Chair Professor, IIT Delhi, Title: Wireless Security.
- 21) Prof. Manoj S Gaur, MNIT Jaipur, Title: Android Malware Analysis.
- 22) Prof. Ponnurangam Kumaraguru, Hemant Bharat Ram Faculty Research Fellow, IIT Delhi, Title: Security & Privacy in On-line Social media
- 23) Prof. Alwyn Roshan Pais, NIT Surathkal, Title: Throttling DDoS Attacks.
- 24) Mr. Sitaram Chamarty, Principal Consultant, TCS Innovation Labs, TCS, Hyderabad, Title: Securing the application development process with Gitolite.
- 25) Prof. G.P. Sahoo, Law School, Banaras Hindu University, Varanasi, Title: Cyber crime and privacy protection: legal and policing challenges in India.
- 26) Prof. Vijay Lakshmi, MNIT, Jaipur, Title: Browser Vulnerabilities and Attack Scenarios.
- 27) Mr. M. R. Muralidharan, Principal Research Scientist, IISc, Bangalore, Title: Principle and Practice of Intrusion Detection Systems.
- 28) Mr. Prafulla Kumar, Director, DeitY, Govt. of India, Title: Cyber Security : Govt. perspective.
- 29) Prof. Chittarajan Hota, BITS-Pilani Hyderabad Campus, Hyderabad, Title: Security threat analytics for largescale Peer-to-Peer networks.
- 30) Mr. Prasad Gorja, Principal Staff Systems, Freescale India, Title: Security challenges and approaches for an effective Unified Threat Management.
- 31) Mr. Krishna Nadh Manepalli, Sr. Principal Engineer, McAfee, India, Title: Nextgen Endpoint Firewall.
- 32) Dr. P R K Murti, Ex Professor, Dept. of Computer Science (University of Hyderabad), Title: IT (Amendment) Act, 2008 and Legal Issues of Encrypted Documents.
- 33) Guest Lecture by Dr. Vaishali Sadaphal, Scientist, TRDDC Pune on "Analytics driven transition planner" 25th September 2013
- 34) Guest Lecture by Dr. Maitreya Natu, Scientist, TRDDC Pune on "Smart Buildings and Smart Grids: Sense, Analyze, and Control" 25th September 2013
- 35) Guest Lecture by Mr. Ayan Nandy, Research Scholar ISIS Calcutta on "A facility coloring problem in one dimension" 26th March 2013.

**45. List the teaching methods adopted by the faculty for different programmes.**

- Lectures based on conventional, computer based presentations, some video recordings with discussions and MOOC based teaching
- Tutorials based on discussions / slides
- Labs - computer aided assignments or problems



- Assignments / Projects – take home and evaluation by viva and/or demo
- Use of Virtual infrastructure to conduct labs and assignments

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The course objectives and learning outcomes of each course of a program are specified in the handouts. And all these are directed towards achieving the program objectives. All faculties strictly adhere to course handout. All students are given handouts every semester systematically. We have mechanisms for inter-department discussions among the faculty, class committee meetings, student feedback on courses to nullify any deviations from course objectives.

**47. Highlight the participation of students and faculty in extension activities.**

BITS-Pilani has a deep rooted culture of extension activities and our department is also an integral part of the institute’s extension activities. There are many community development activities and initiatives in which our students are involved, especially through such organizations as SCIO, NIRMAN, INACTUS, NSS, etc. These organizations are involved in several extension and outreach activities involving underprivileged children, women, senior citizens and projects dealing with education, relief work, adult literacy, health services, etc.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

- Every semester, each faculty deliver talks on latest developments of their research area to all faculty and students.
- Many student projects are in collaboration with organizations like Delloitte, Informatica, Morphing Machines, CognitiveScale, TRDDC etc
- Invited talks by external resource persons from industry / institutions of high repute (Embryo, TeD talks)
- Organizing symposia/conferences in cutting edge technologies.

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

No

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- Department conducted couple of workshops on information security
- Faculty continuously strives to progress their research and in the process they guide several graduate, under-graduate and Ph.D. students. There have been good





contributions by our faculty in the following areas: Computer Networks, Information Security, Cloud Forensics, Internet of Things, Online Computing Platforms, Big Data, Data Mining, Information Retrieval, Databases, Software Engineering, and Computer Graphics etc.

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths</b> – Proximity to IT Hub; Quick ramp up of physical infra; Admissions through BITSAT resulting in the selection of the creamy layer of students nation-wide; Faculty with experience from institutions of national and international repute as well as from industry, Strong Industry Linkage through Practice School; industry/university immersion for faculty; excellent ICT infrastructure like telepresence class rooms, high-speed internet, ERP etc for high quality academic experience and administration, Good placement opportunities for students.</p>	<p><b>Weaknesses</b> – Difficulty in attracting and retaining good faculty, High student-to-faculty ratio, High teaching and evaluation load, Limited research thrust areas, Lack of senior faculty, Inability to offer wide range of electives</p>
<p><b>Opportunities</b> – Industry Linkages for research; Academic programs offered in collaboration with Industry; Collaboration with other academic institutes of national and international repute (e.g. Nalsar, IIIT-Hyd, IIT-H); funding from international sponsors; better placement prospects due to proximity to Hyderabad IT hub.</p>	<p><b>Challenges</b> – Increasing the student strength of Higher degree and Ph.D. Programs; Faculty Recruitment, Perception in Industry about Hyderabad being the newest (youngest) campus</p>



## 52. Future plans of the department.

In the next five years we plan to:

- Generate 15 PhDs. (At an average of 3 PhDs in an year)
- Research grants through Govt. Funding, of the order of 2.5 Cr. (At an average of 50 lakhs is targeted for one year.)
- Five collaborations with IT industry for sponsored research.
- Three international collaboration/exchange programs are aimed in next five period.
- 5-10 visits of faculty under international collaboration/exchange programs
- Enhancing the quality of research by encouraging faculty and students to publish in peer-reviewed journals IEEE/ACM conference proceedings.

Add lab and related infrastructure in realm of

- High end multimedia Lab
- Distributed Systems (Hadoop clusters)
- Private Cloud
- High performance computing lab
- AI and Robotics lab
- Computer Architecture and Performance Evaluation

Also

- Add five new courses at undergraduate level to meet industry needs.
- Add new programs at ME level (in emerging areas like Data analytics)
- Setting up center of excellence with Industry support on mutually beneficial areas
- Focus more on startups by faculty and/or students

## 53. Any other information regarding your department which you would like to include.

- Encouraging multidisciplinary research and teaching
- Focus on Industry focussed research
- Regular interaction with industry to understand their needs to make students industry ready
- Encourage faculty to visit industry and institutions of repute to enhance visibility



## HYDERABAD Campus: Evaluative Report of the Department ECONOMICS AND FINANCE

1. **Name of the Department:** ECONOMICS AND FINANCE
2. **Year of establishment of the Department:** 2008 as Economics, Humanities and Languages; 2013 split as Economics and Finance, separate from Humanities and Social Sciences
3. **Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**  
  
Ph.D., M.Sc. (Hons) Economics, Minor in Finance
5. **Interdisciplinary programmes and departments involved** None
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**
  - Part-time Ph.D. in collaboration with Indian School of Business
  - New Venture Creation in collaboration with BITS alumni and eminent entrepreneurs
  - “Management of cross-cultural engineering teams”, in collaboration with University of Southern California
7. **Details of programmes discontinued, if any, with reasons :** None
8. **Examination System:** Semester and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments**
  - “MF F421: Supply Chain Management” offered by Manufacturing
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	1	1
Associate Professors		2	1
Asst. Professors		5	5
Others		2	2



Note\*\*The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Niranjan Swain	Ph.D.	Professor	Finance	22	Completed: 3 Ongoing:2
Ramana Sonti	Ph.D.	Associate Professor	Finance	17	Completed:1 Ongoing: 2
China Hussain Yaganti	Ph.D.	Assistant Professor	Macroeconometrics, derivatives	11	-
Durgesh Chandra Pathak	Ph.D.	Assistant Professor	Development Economics	5	-
Sudatta Banerjee	Ph.D.	Assistant Professor	Growth & Development Economics	4	-
Archana Srivastava	Ph.D.	Assistant Professor	International Economics	3	-
Swati Alok	Ph.D.	Assistant Professor	Management	11	-
S. Hanumantha Rao	MBA (IIMC)	Visiting Faculty	Strategy, Supply Chain management	42	-
SivaramakrishnaKodali	MBA (IIMB)	Visiting Faculty	Marketing, Behavioral finance	33	-

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors**

- Mr. Sivaramakrishna Kodali (2010-13)
- Mr. Pankaj Gupta (2010)
- Prof K. Nageshwar (2010-14)
- Prof. Nikhil Rastogi, IMT (2011)
- Prof. Nitin Gupta, IMT (2011)
- Prof. U. Subramaniam, IMT (2011)



**13. Percentage of classes taken by temporary faculty – programme-wise information**

- Ph.D. : 0%
- M.Sc. (Hons) Economics: Approximately 5%
- Minor in Finance: 0%

**14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)**

- Ph.D. : 0.44:1
- M.Sc. (Hons) Economics: 18.44:1
- Minor in Finance: 12.55:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

- administrative staff support member shared amongst four departments

**16. Research thrust areas as recognized by major funding agencies**

Development Economics, Financial market integration, Corporate governance, Banking, MacroEconometrics

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	An evaluation of Development Policies for Tribals in Andhrapradesh and Dahod Tribles in Gujarat	Dr. Meera Lal	ICSSR	6,20,000	1 year

**Ongoing projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
	-NONE-				

**18. Inter-institutional collaborative projects and associated grants received**

- a) National collaboration: NONE
- b) International collaboration: NONE



**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received. None**

NONE

**20. Research facility / centre with**

state recognition: NONE

national recognition: NONE

international recognition: NONE

**21. Special research laboratories sponsored by / created by industry or corporate bodies:**

NONE

**22. Publications:**

SI No.	Details	Specify number here
	Number of papers published in peer reviewed journals (national / international)	29
	Monographs	0
	Chapters in Books	1
	Edited Books	0
	Books with ISBN with details of publishers	1, ISBN - 13: 978-3-8465-5807-2 Lambert Academic Publications, Germany
	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	19
	Citation Index – range / average	0-37.6/4.89
	SNIP	Not available for our journals
	SJR	Not available for our journals
	Impact Factor – range / average	0.11-1.77/0.77
	h-index – range/average	0-6/3

**Details of the publications as per the number given above (Give details of last 5 years)**

S.No	Authors	Title of Publication	Detail of the Journals	National / International	Year
1	C H Yaganti & B Kamaiah	Market Efficiency of Commodity Futures Markets in India	GITAM Review of International Business	International	2010



4	C H Yaganti	Price formation and Hedging Effectiveness of commodity futures in India”(abstract) at The Silver jubilee Conference volume of the Indian Society of Agricultural Marketing (ISAM),	National Academy of Agricultural Research Management (NAARM)	National	2011
5	C H Yaganti	An Empirical Analysis of Price Discovery between Spot and Futures Markets: Evidence from Commodity Markets in India	Asian Economic Review	International	2011
6	C H Yaganti & B Kamaiah	Hedging Efficiency of Commodity Futures Markets in India" ,	IUP Journal of Financial Risk Management	National	2011
7	Prof. Niranjana Swain	Risk Management in Construction Projects, Volume VII, Number 3, July-September 2011, pp. 107-120, ISSN: 0973-2470	Asia-Pacific Business Review	International	2011
9	Sudatta Banerjee and Tanaya Sinha	"Socio Economic Determinants of Suicide- A Panel Data Analysis across Indian States", Vol. 1, No. 4, pp. 17-27.	International Journal of Management and Development Studies	International	2013
10	Dr.P.Lalitha and Shikhar Malik	" Revealed Comparative Advantage and Competitiveness: A Case Study for India, , Years-3, No.3 March2013, ISSN 2231-2552, PP 20-22	Adhikaar, An International Journal	International	2013
11	Dr.Payal Mehta	"Impact of Functional Areas on Stress Level of Executives: A New Perspective" Volume 5 Issue 7.	Pacific Business Review International	International	2013
12	Swati Alok, Prasuna M.G.	"Vignette Development: An Illustrations in Conflict Research"	AIMS International Journal of Management	International	2013
13	Swati Alok, Ravali Reddy	"Determinants that influences pharmaceutical companies in the selection of wholesale distributors"- A case study of Karimnagar district of Andhra Pradesh", Vol-4 , pp 59-66; (ISSN 2278-5671)	International Journal of Management and Behavioral Sciences (IJMBS)	International	2013



14	Swati Alok, Meera Lal	"Designing a Model for Task Conflict Management – Application of Theory of Planned Behaviour" , Vol 55, No. 3 (pp-473); IIE Journal (ISSN: 0004-4555)	Asian Economic Review	International	2013
17	Payal Mehta	"Occupational Stress and Its Impact on Competence: A Sample Study", Feb-March 2014, Volume 3, Issue 2, pp. 321-325.	World Academy of Informatics and Management Sciences,	International	2014
18	Payal Mehta	"Consumer Switching Behaviour towards Mobile Number Portability",January 2014, Volume 2, No. 1, pp. 32-39.	International Journal of Management and Development Studies	International	2014
19	G.Ramakrishna, G. Madhavan kutty, P. Lalitha	"Impact of Capital Account Openness, Trade Balances and Exchange Rates on Economic Growth: The Evidence from India (1990-2013)" September, Volume 56, No.3, pp 172-190, 2014.	Asian Economic Review	International	2014
20	P.Lalitha	"Tribal Diversity in Andhra Pradesh and Telangana: A Comparative Analysis", American International Journal of Research in Humanities, Arts and Social Sciences, 7(2), June-August, pp. 131-139, 2014.	American International Journal of Research in Humanities, Arts and Social Sciences	International	2014
21	P.Lalitha, M.Ramulu, G.Rama Krishna	"Trends in Foreign Trade between India and the BRICS countries : An Empirical Analysis", Vol.2 (1), April-June, pp 1-13.	International Journal of Contemporary Issues,	International	2014
22	Swati Alok, Jayasree.R and Prasuna M. G.	"Predicting the Conflict style Intention to Manage Relationship Conflict: An Exploratory extension of Theory of Planned Behaviour", Management, Vol. 21, No.1, pp.117-133	South Asian Journal of management	International	2014
23	Shaheen, M., Gupta, M., Sayeed, O.B., Swati Alok	"Behavioral Intentions of Academicians towards Teaching and Research: A Study in the Indian B-School Context", IUP Journal of Soft Skills, Vol. No.8 .pp. 7-31, 2014	IUP Journal of Soft Skills	National	2014





24	Swati Alok, Jayasree.R, Shaheen.M	Conflict Management Strategies Used by Indian Software Companies: A Summative Content Analysis", (in Press for publication, Dec issue, 2014)	IUP Journal of Soft Skills,	National	2014
25	Archana Srivastava & Mathur, S K	"Validity of Heckscher-Ohlin-Vanek Hypothesis - A Complete and Partial Test Approach" Korea and the World Economy, Chungbuk National University, Cheongju, Chungbuk 361-763, December issue of 2014.	Korea and the World Economy	International	2014
26	Sudatta Banerjee and Amrita Roy	"Determinants of Female Autonomy across Indian States", , Vol. 3, No. 11, pp. 1037-1040.	Journal of Economics, Business and Management	International	2015
27	Pathak D C & Srijit Mishra	"Poverty Estimates in India: Old Versus New Methods, 2004-05"	Poverty and Public Policy	International	2015
28	Ch. V. V. S. N. V. Prasad, P. Lalitha , P. V. N. Srikar	" Barriers to the Use of Information and Communication Technology (ICT) in Secondary Education: Teacher's Perspective, Selected for presentation and publication, accepted for	Journal of Management Research	International	2015
29	Swati Alok, Jayasree Raveendran	Process conflict management among Indian software employees: prediction of conflict handling intention in fast changing global IT market using the theory of planned behaviour"	Journal of Indian Business Research	International	2015

### Conferences

	Authors	Title of Publications	Detail of Publications	National/International	Year
1.	China Hussain Yaganti	Cointegration and ECM in the Financial Econometrics	TIES and University of Hyderabad, University of Hyderabad Campus	National	9-13 Nov 2010.
2.	China Hussain Yaganti	"Price formation and Hedging Effectiveness of commodity Futures in India	Indian Society of Agricultural Marketing (ISAM), National Academy of Agricultural Research Management (NAARM), Hyderabad	National	22-24 November, 2011.
3.	C H Yaganti & A K Prashant	"Role of Branded Retail Stores in Successful Marketing of Agricultural Produce"	University of Agricultural Sciences, Dahrwad.	national	18th,- 20Dec., 2013,



4.	C H Yaganti & B Kamaiah	"Estimation of optimal Hedge Ratio and Hedging Effectiveness of Futures Markets	Indira Gandhi Institute of Development Research (IGIDR), Mumbai .	national	22-24th December, 2013
5.	C H Yaganti	Estimation of optimal Hedge Ratio and Hedging Effectiveness of Futures Markets- A Case study of Gold & Silver	Gokhale Institute of Politics and Economics.	national	31st January to 2nd February 2014
6.	C H Yaganti and B Kamaiah	"An Econometric Analysis of Hedging Effectiveness of Commodity Futures Markets in India'	4th International Conference on Applied Econometrics (ICAE-IV) held at IBS Hyderabad	International	March 20-21, 2014.
7.	C H Yaganti & A K Prashant	"Branded Retail Stores: Economic analysis and Environmental issues	National conference on Technology, Policy and Community: SMALL EXPERIMENTS IN SUSTAINABILITY held at BITS-PILANI, Hyderabad	national	14-15 March, 2014.
8.	C H Yaganti	Commodity Futures Trading in India - Issues and Concerns"	Department of Commerce, University College of Commerce & Business Management, Osmania University, and Hyderabad	national	August 7-8, 2014.
9.	C H Yaganti and B Kamaiah	Hedging using cointegration and Hedging Effectiveness of Futures Markets",	21st Biennial Conference 2015-AIEFS held at University of Hyderabad,	international	Aug 03-04, 2015.
10.	Sudatta Banerjee	Determinants of Female Autonomy across Indian States	50th Golden Jubilee Annual Conference of the Indian Econometric Society (TIES), held at IGIDR, Mumbai, India,	national	22-24 December, 2013.
11.	Sudatta Banerjee	Economic Growth and the Quality Composition of Human Capital	4th International Conference on Applied Econometrics (ICAE-IV), IBS Hyderabad,	International	March 20-21, 2014.
12.	Sudatta Banerjee	Determinants of Female Autonomy across Indian States	5th International Conference on Economics, Business and Management-ICEBM 2014, Phuket Island, Thailand.	International	December 27-28, 2014,
13.	Swati Alok	A study of lean adopting practices among Indian	ICEBM 2015, Department of	International	March 20-21 2015



		Manufacturing Employees: A case study at Awarpur Cement Works	Management, BITS-Pilani, Pilani		
14.	Swati Alok, Lakshmi Anusha S, Ashiff Shaik	“ Predicting the attitude and intention towards the consumption of organic food among Indian consumers”	MARCON 2014: International Marketing Conference at , IIM Calcutta, Kolkata,	International	(18-19 Dec, 2014)
15.	Swati Alok,	“Process Conflict Management among Indian Software Employees,	2nd Second PAN IIM World Management Conference at IIM Kozhikode,	International	(5-7 Nov , 2014)
16.	Swati Alok,	“Predicting the Conflict style Intention to Manage Relationship Conflict”,	11th AIMS International Conference on Management at IMT Ghaziabad, India	International	(21-24 Dec., 2013)
17.	Swati Alok,	“ Efficacy of Theory of Planned Behaviour : A study of task conflicts among Indian Software employees”	The 13th International Consortium of Students in Management Research (COSMAR-13) at Department of Management Studies in IISc, Bangalore	International	15-16 Nov, 2013)
18.	Swati Alok,	“Assessment of Conflict style using Vignette Methodology”	International Conference and Doctoral Colloquium on Social Science Research” sponsored by ICSSR at Institute of Public Enterprise (IPE) , Hyderabad	International	(2-5 Jan, 2013)
19.	Swati Alok,	“Application of Theory of Planned Behaviour in Conflict Management”	6th International Conference of Management & Behavioral Science (ICMBS) organized by Society of Management and Behavioral Sciences, Ahmedabad	International	Dec, 2012
20.	Pathak Durgesh	Poverty Deprivation in South Asia	Invited talk at BHU in international seminar	International	9-11 March
21.	Archana Srivastava	Impact of Trade on Wage Inequality, Poverty, Employment and Growth	Lecture delivered in a workshop on “Frontier areas in Econometrics & International Trade and Finance”, at Indian Institute of Technology, Kanpur,	International	December 17, 2014.
22.	Payal Mehta	Job Stress and its Impact on Faculty Performance - A Sample	ICEBM 2015, Department of	International	March 20-21 2015



		Study	Management, BITS-Pilani, Pilani		
23.	P Lalitha	Information and communication technology (ICT) and secondary schools in India: A case study in Hyderabad	Global Conference on Business and Social Sciences, Kaulalumpur, Malaysia	International	Dec 15-16, 2014

**23. Details of patents and income generated: NONE**

**24. Areas of consultancy and income generated: NONE**

**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad: NONE**

**26. Faculty serving in**

- National committees: Sudatta Banerjee served on the committee to submit a report to the Central Board of Direct Taxes, Ministry of Finance, Government of India on Unaccounted Income/Wealth both Inside and Outside the Country in 2012-13
- International committees: NONE
- Editorial Boards: Ramana Sonti, Member of the Editorial Review Board, Journal of Indian Business Research
- any other (please specify): NONE

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs)**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level.

Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.



**28. Student projects**

- **percentage of students who have done in-house projects including inter-departmental projects:**

Nearly 100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective. Approximately 250 students have done projects in our department. Since we offer projects to students of all departments in the campus, including ours, percentage would be a misleading indicator

- **percentage of students doing projects in collaboration with other universities /industry / institute:**

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

**29. Awards / recognitions received at the national and international level by**

Faculty:

- Archana Srivastava, 2011, Best paper award, Asia-Pacific and Business Research Conference, Kuala Lumpur
- Sudatta Banerjee, 2014, Best paper of the session award, 5th International Conference on Economics, Business and Management - ICEBM2014, Phuket Island, Thailand
- Swati Alok, 2013, Best Paper in the track of Human Resource Management for the paper presented in “The 13th Consortium of students in management Research (COSMAR 2013)”, Department of Management Studies, IISc. Bangalore
- Swati Alok, 2013, Second prize in AIMS-BIMTECH Doctoral Student Paper Competition held at AIMS-11, IMT Ghaziabad

Doctoral / post doctoral fellows: -NONE-

Students: -NONE-

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

Date	Topic	Led by
08.04.2013	Financial Education	Dr. RathinaKumari
16.04.2013	Indian Trade and Banking	SBH senior personnel
27.04.2013	SPSS : Hands on experience	Mr. UdayBhate



18.04.2014	Research Methodology in Social Sciences	Prof. Indrakant, Prof. G. Ramakrishna and Mr. UdayBhate
5.05.2015	Aditya Birla India Centre Research Workshop	Prof. NaufelVilcassim, Prof. Rajesh Chandy, Prof. Vikrant Vig from London Business School

**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.

**32. Student profile programme-wise:**

2010

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
Ph.D. .	425	0	0	-N/A-	-N/A-
MSc. (Hons) Economics	14662	44	6	100%	100%
<b>2011</b>					
Ph.D.	461	1	0	-N/A-	-N/A-
M. Sc. (Hons) Economics	12880	42	11	100%	100%
<b>2012</b>					
Ph.D.	773	0	1	-N/A-	-N/A-
M. Sc. (Hons) Economics	15714	41	10	100%	100%
<b>2013</b>					
Ph.D.	964	1	0	-N/A-	-N/A-
M. Sc. (Hons) Economics	15120	56	12	100%	100%
<b>2014</b>					
Ph.D.	773	0	1	-N/A-	-N/A-
M. Sc. (Hons) Economics	18717	67	10	100%	100%
Minor in Finance		92	22	-	-



Note: Only 17 students of the Minor program have passed out, and all were male.  
The remaining 97 students are due to graduate in 2016

### 33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
Ph.D.	50%	-	50%	-

### 34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

We do not capture this data through any formal process.

### 35. Student progression

Student progression	Percentage against enrolled*
UG to PG	Approx 25%
PG to M.Phil.	-
PG to Ph.D.	-
Employed	
<input type="checkbox"/> Campus selection	Approx 75%
<input type="checkbox"/> Other than campus recruitment	
Entrepreneurs	

\*This is the approximate data given. The department does not maintain the records for this.

### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	11.1
	11.1



from other universities within the State	
from universities from other States from universities outside the country	77.8

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: 1 (One)**

**38. Present details of departmental infrastructural facilities with regard to**

- a) Library: Approximately 3100 books, and around 130 journal subscriptions
- b) Internet facilities for staff and students: Hostel rooms, faculty houses and faculty cubicles have internet connection. All academic blocks are WiFi enabled apart from LAN connections in all rooms.
- c) Students' laboratories: -None-
- d) Research laboratories: -Not relevant for department-

**39. List of doctoral, post-doctoral students and Research Associates**

- a) from the host institution/university
  - Ajay Prasad Adepu
  - S. Mohammed Rafi
- b) from other institutions/universities
  - Saipriya Kamath
  - Sonia Antil

**40. Number of post graduate students getting financial assistance from the university.**  
1 (ONE)

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**  
None in the last five years

**42. Does the department obtain feedback from faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Departmental Committee on Academics periodically meets, and also discusses curriculum and related issues with counterparts across the other campuses, especially for introducing new courses and reviewing existing text books etc.

**students on staff, curriculum and teaching-learning-evaluation and how does the**





**department utilize the feedback?**

Instruction division collects formal, anonymous feedback of the students on various aspects of course content and delivery. This feedback is shared with the concerned faculty member, and the Head of Department if any discussion is warranted

Student class committees elected by each batch of the student body are constituted every year and periodically meet their faculty co-ordinators to discuss in an open forum various issues regarding curriculum, content and delivery. This feedback is minuted and shared amongst the faculty

**alumni and employers on the programmes offered and how does the department utilize the feedback?**

Department seeks feedback from the industry through the practice school division, which is the primary entry point for students into industry while completing the curriculum. This feedback can lead to new course introduction to enhance student skills

**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- Discussion on Union Budget 2015, March 10, 2015, with participants Prof K Nageshwar (Osmania U.) and Prof Krishnamurthy Subramanian (Indian School of Business)
- Guest lecture on "High Frequency Trading", October 11, 2014, by Prof. Ramabhadran Thirumalai (Indian School of Business)
- Special classes to interested students in "Financial Modelling with Excel" Semester I, 2014-15, conducted by Profs. Ramana Sonti and S. Hanumantha Rao
- Guest lecture on "Basics and operational aspects of stock market trading," September 16, 2013, by Sivaramakrishna Kodali (now visiting faculty in the department)

**45. List the teaching methods adopted by the faculty for different programmes.**

- PhD
  - Reading courses
  - Teaching practice
  - Periodic research seminars
- M.Sc. (Hons) Economics



- Lectures
- Relevant video content
- Student presentations
- Group project work
- Tutorial sessions in using software (such as STATA, SPSS etc.)
- Minor in Finance
  - Lectures
  - Relevant video content
  - Student presentations on contemporary issues in finance (such as studying the 2008 financial crisis, various financial scams, central banking and credit policy, derivatives disasters etc.)
  - Group project work
  - Tutorial sessions in using software (such as STATA, SPSS etc.)

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- Continuous evaluation of students through examinations, quizzes, take-home assignments and in-class presentations at the first degree level
- At the PhD level, in addition to the above during class work, research seminars and evaluated teaching practice are used

**47. Highlight the participation of students and faculty in extension activities.**

There are many social organizations actively working on campus like NIRMAAN, NSS, YUVA (Youth under visionary action), HOPE and SIRI (society involved in reinventing India on campus). We have various events on campus like Cloth Donation, Tree Plantation, Blood Donation, Campus Clean Up programs, Career Planning, Medical Camps, Campus Tour for School Students.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

- Research targeted at publication in good Indian and international journals
- Conference attendance and presentation of research by department faculty
- Faculty attending refresher and advanced workshops at other universities (such as one in Financial Data Analytics at the C.R. Rao AIMSCS at the University of Hyderabad, Dec 27-30, 2014)

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

NONE



**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- All research activity of the department faculty is geared towards knowledge production and dissemination
- The department is in talks with Centre for Advanced Financial Research and Learning (CAFRAL) at the RBI for joint research projects on India centric issues
- Department is collaboration with a leading brokerage to utilize their client data to understand Indian retail investor behaviour, which is at present underexplored

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Very intelligent students with solid foundation in mathematics and analytical skills</li> <li>• Diversity in faculty – by age, qualifications, industry experience</li> <li>• BITS brand name</li> <li>• Hyderabad is a preferred location – for many students and faculty</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Difficulty in attracting and retaining good faculty</li> <li>• Senior management focus is primarily on Engineering and Sciences</li> <li>• Budget and policy constraints limit ability to conduct or attend leading national and international conferences</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• The Indian economy in general, and sectors such as financial services, consulting, business analytics, insurance etc are set to take off in a big way, providing plentiful opportunities for student employment</li> <li>• New Management Development Programmes, and Certification programmes can be offered with more faculty</li> <li>• Consulting opportunities in areas of departmental expertise could be pursued</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• BITS is primarily perceived as an engineering and science institution, limiting the visibility of the Economics &amp; Finance department resulting in not being able to attract the best talent in faculty and research students</li> <li>• Entry of private business schools and foreign universities will put pressure on BITS for substantial pay raises</li> </ul>

**52. Future plans of the department.**

- Recruit at least 3 more faculty members, at levels of assistant professor and above, especially in the Economics area. This will enhance the department’s ability to introduce new, contemporary and relevant economics electives



- Start Minor programmes in consulting, entrepreneurship and analytics
- Offer certification programmes and Management development programmes
- Focus on India-centric economics, finance and management research of international quality

**53. Any other information regarding your department which you would like to include.**



## HYDERABAD Campus: Evaluative Report of the Department ELECTRICAL AND ELECTRONICS ENGINEERING

**1. Name of the Department:** Electrical and Electronics Engineering

**2. Year of establishment of the Department:** 2008

**3. Is the Department part of a School/Faculty of the university?**

Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.

**4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**

<ul style="list-style-type: none"> <li>• Under Graduate</li> </ul>	Electronics and Communication Engineering
	Electronics and Electrical Engineering
	Electronics and Instrumentation
<ul style="list-style-type: none"> <li>• Post Graduation</li> </ul>	Embedded Systems

**5. Interdisciplinary programmes and departments involved:** NIL

**6. Courses in collaboration with other universities, industries, foreign institutions, etc.**

Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.

**7. Details of programmes discontinued, if any, with reasons**

- ME Microelectronics (regular),
- ME Embedded systems (working Professionals)
- ME Microelectronics (working professionals)
- ME Electronics and Control (Working Professionals)

These programmes have been suspended (not discontinued) as the department didn't have sufficient faculty strength at that point of time. The department is considering resuming these programmes soon.

**8. Examination System:** Semester with Choice Based Credit System

**9. Participation of the department in the courses offered by other departments**



- Part of the Mechanical Engineering lab course [ME F215] is being offered to the Mechanical Engineering Students
- Measurement Techniques MT-2 Lab [TA C222] was offered to the students of other departments
- Digital design [CS/ECE/EEE/INSTR F215] is being offered to the computer science students
- Microprocessor and Interfacing [EEE/ECE/INSTR F241] is being offered to the computer science students
- Electrical Sciences [EEE F111] is being offered to the students for all the other departments

**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled No	Actual number
Professor	<b>Note:**</b>	2	2
Associate Professors		3	3
Asst. Professors		11	9
Others*		8 (lecturer) 1 (visiting faculty)	8 (lecturer) 1 (visiting faculty)

Note\*\* : The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No of years of experience	# of Ph.D. students guided in last 5 years
Prof. M. B. Srinivas	Ph. D.	Professor	VLSI Arithmetic, Mixed Signal Design, Low power Design, Renewable Energy, Wireless Sensor Networks, Biomedical instrumentation, Tele-medicine, Reversible Computing, Signal Processing	25 years	Completed: 1 Continuing: 13
Prof. Yoganandam	Ph. D.	Professor	Communications, Signal Processing, MIMO, Cognitive Radio, Spectrum Sensing,	36 years	Continuing: 2



			Software Defined radio (SDR), Radar Signal processing and Radar Image processing.		
Prof. G Bhuvaneswari	Ph.D	Visiting Professor	Power Electronics, Electrical Machines, Drives, Power quality, Power conditioning, Power Supplies, Renewable energy-wind and solar, HVDC and FACTS devices.	27 years	Completed: 6
Prof. BVVSN Prabhakar Rao	Ph. D.	Associate Professor	Biomedical Signal Processing and Modelling of Organic materials for solar cells	18years	Continuing: 5
Prof. SanketGoel	Ph. D.	Associate Professor	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.	15 years	Completed: 1 Continuing: 1
Prof. Parthapratim De	Ph. D.	Associate Professor	Digital Signal processing, Adaptive signal processing applications to wireless communication systems (Channel Estimation, Multi-user detection) in CDMA systems, Blind equalization, MIMO and MIMO-OFDM systems, Blind channel Estimation, Cognitive Radios, Spectrum sensing in cognitive radios.	16 years	Nil
DrSubhendu Kumar Sahoo	Ph. D.	Assistant Professor	VLSI architecture for Digital Signal Processing	16 years	Continuing: 4
DrAlivelu Manga Parimi	Ph. D.	Assistant Professor	Power Systems: FACTS, Power system stability, Power Quality	8 years	Continuing: 5
DrPrasant Kumar Pattnaik	Ph. D.	Assistant Professor	Photonics, Optical Communications, Photonic Integrated Circuits, MEMS	10 years	Continuing: 2
Dr. Venkateswaran Rajgopalan	Ph. D.	Assistant Professor	Human brain mapping using Magnetic Resonance Imaging (MRI), Transcranial Magnetic	4.5 years	Continuing: 1



			Stimulation (TMS), Electroencephalography (EEG), Positron Emission Tomography (PET), Biomedical signal processing (EMG, EEG, Motor Evoked Potential (MEP)), Biomedical Image processing (MRI, functional MRI, diffusion MRI), Machine Learning, Graph Theory (brain network analysis).		
Dr. Runa Kumari	Ph. D.	Assistant Professor	Dielectric Resonator Antenna, Log periodic Antenna, Reconfigurable Antenna, Microstrip antenna, Antenna Array.	5 years	Nil
Dr. Srinivasa Rao Zinka	Ph. D.	Assistant Professor	Phased Array Antennas, Microwave Filter Design, Frequency Selective Surfaces, Radar System Design.	3.5 years	Nil
Dr. SumitKumar Chatterjee	Ph. D.	Assistant Professor	Digital VLSI Design, Video Compression	16 years	Nil
Dr. Souvik Kundu	Ph. D.	Assistant Professor	Nanoelectronics; Semiconductor Physics and Devices; Thin Films; Materials for Electronics; Design & Fabrication of Nano/Micro-Electronic Devices, etc.	4 years	Nil
Dr. Soumya J	Ph. D.	Assistant Professor	Network-on-Chip (NoC) design Application-Specific Synthesis of NoC Reconfigurable NoC design.	4 years	Nil
Mrs. MadhuriBayya	Pursuing Ph.D with BITS, M.E	Lecturer	Power electronics, alternate sources of energy, Batttery Management Systems	8 years	Nil
Mr. Syed Ershad Ahmed	Pursuing Ph.D with BITS, M.tech	Lecturer	VLSI Arithmetic Circuits, Low Power VLSI Design	9 years	Nil
Mr. AnanthSaradhi	Pursuing Ph.D with BITS, M.S	Lecturer	Organic Solar Cells, Sensor Networks, Embedded Systems	9 years	Nil
Miss T Haripriya	Pursuing Ph.D with BITS,	Lecturer	Power system operation and control, Power system protection	5 years	Nil





	M.tech				
MsSubhaMada	Pursuing Ph.D with BITS, M.E	Lecturer	Analog VLSI Design	11 years	Nil
Mr. Chetan Kumar	Pursuing Ph.D with BITS, M.E	Lecturer	Computer Arithmetic, CNFET based Multi-valued logic design, Reversible Arithmetic circuits	6 years	Nil
Ms. Sunita Singh	Pursuing Ph.D with BITS, M.tech	Lecturer	Power Electronics, Electrical Machines and Drives, Renewable Energy, Power Quality.	14 years	Nil
Mr. M. Deepu Vijay	Pursuing Ph.D with BITS, M.tech	Lecturer	Power Electronics application in Solar systems.		Nil

## 12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

**Prof. G Bhuvaneshwari**, Visiting Professor, Birla Institute of Technology and Science Pilani - Hyderabad Campus. She is a professor in the Department of Electrical Engineering at Indian Institute of Technology, Delhi.

**Prof. K MM Rao** Visiting Professor(2010 - 2014), Birla Institute of Technology and Science Pilani - Hyderabad Campus. He was working at NRSA, Hyderabad as Dy. Director.

**Prof. U M Rao**, Visiting Professor (2008 - 2015), Birla Institute of Technology and Science Pilani - Hyderabad Campus. He was working at CEERI, Pilani as senior scientist.

## 13. Percentage of classes taken by temporary faculty – Programme wise information

Between 2010-2014, approximately 10% of the classes were taken by temporary faculty, but currently (since Jan 2015) we don't have any temporary faculty.

Program	Visiting Faculty Name	% Load
BE (ECE)	Prof. KMM Rao	5%
BE (EEE)	Prof. UM Rao	10%
BE (E&I)	Prof. (Col) Surendra	5%
ME (Embedded)	Dr. Nagasayanu	5%
ME (Embedded)	Mr. Parthasarathy	5%
ME (E & C)	Mr. Ramakrishna	5%



#### 14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)

Total number of students (2, 3, 4th year UG ECE, EEE and E&I, and ME programs) being handled by the EEE department is 835 and the total number of faculty is 24. The student teacher ratio is 35:1.

#### 15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

Total number of technical staff = 8 and Admin = ½ ( One office assistant is being shared by EEE & Chemical Engineering departments)

#### 16. Research thrust areas as recognized by major funding agencies

VLSI Arithmetic, Renewable Energy, Wireless Sensor Networks, Biomedical instrumentation, Tele-medicine, Reversible Computing, Signal Processing, Radar Signal and Image processing, Biomedical Signal Processing, Solar cells Modelling, Microfluidics, MEMS, Lab-on-a-chip, Nanomaterials, Nanofabrication, Medical Diagnostics, Point-of-Care devices, 3D printing, Fuel Cells, Power system stability, Power Quality, Photonics, Optical Communications, Photonic Integrated Circuits, Power electronics, Renewable / Alternate energy, Technology for smart grid, Organic Solar Cells, Sensor Networks, Embedded Systems & Memory Devices

#### 17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

##### Completed projects:

#	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Variable Data Rate Digital Demodulator for 64QAM on virtex -5 FPGA	Prof. M. B. Srinivas	DLRL, DRDO	9.90	2011-2013
2	Matlab Modelling of a novel battery Systems	Prof. U. M. Rao	Hyderabad Batteries Ltd	2	2013-2014



3	Consultancy Project: Development of Technologies for Monitoring of Malnutrition in Growing Children.	Prof. M. B. Srinivas	Indian institute of Biotechnology pvt. Ltd	3.20	2012-2014
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### Ongoing projects:

#	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Algorithms for Narrow Beamwidth Emitter Location (ANABEL)	Prof. Y. Yoganandam	DLRL, DRDO	9.95	9 months(2015-2016)
2	Microfluidic device as a Microviscomemter	Prof. SanketGoel	DST	70 (34 lakhs to CEERI)	2 years (Nov 2014 – Oct 2016)
3	Membraneless Microfluidic devices for rapid, automated and self-sustainable enzymatic biofuel cell	Prof. SanketGoel	DST	24	3 years (Mar 2013 – Feb 2016)
4	Microfluidic Diffusivity Meter for CO2 diffusivity during Enhanced Oil Recovery	Prof. SanketGoel	DST SERB	23	3 years (Jan 2014 – Dec 2016)

# 2-4 were funded to Prof. SanketGoel, who joined in Aug 2015.

### 18. Inter-institutional collaborative projects and associated grants received

#	Project	Collaborative Organization	Grant
1	Microfluidic device as a Microviscomemter	CSIR-CEERI, Pilani	70 lakhs
2	Membraneless Microfluidic devices for rapid, automated and self-sustainable enzymatic biofuel cell	IIT Kanpur	24 lakhs

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.;** total grants received. **NONE**

### 20. Research facility / centre with

- state recognition: None
- national recognition: None
- international recognition: None



## 21. Special research laboratories sponsored by / created by industry or corporate bodies

- Powerwave lab was setup by Powerwave technologies for designing sharp linear phase filter design. As the company is closed, it is inactive since 2014.
- Cypress PSOC lab for SOC design applications
- ARM has setup intelligent embedded systems lab

## 22. Publications:

#	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	11
2	Monographs	0
3	Chapters in Books	1
4	Edited Books	0
5	Books with ISBN with details of publishers	0
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	6
7	Citation Index – range / average	Total 17
8	SNIP	0.723 – 1.1892 / 1.006
9	SJR	0.297 – 2.387 / 0.882
10	Impact Factor – range / average	0.6 – 6.8 / 2.63
11	h-index	1

**Details of the publications as per the number given above (Give details in the last five years)**

### Journal Publications (indexed)

#	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	KothaSrinivasaReddya, Subhendu Kumar Sahoo	An approach for FIR filter coefficient optimization using differential evolution algorithm	AEU - International Journal of Electronics and Communications	International	2015
2	Rajagopalan V, Pioro EP	Disparate voxel based morphometry (VBM) results between SPM and FSL softwares in ALS patients with frontotemporal dementia: which VBM results to consider?	BMC Neurol. 2015 Dec;15(1):274. doi: 10.1186/s12883-015-0274-8. Epub 2015 Mar 13. <b>(Highly Accessed)</b>	International	2015
3	Genova HM, Rajagopalan V, Nancy Chiaravalloti, Binder A, Deluca J,	Facial Affect Recognition Linked to Damage in Specific White Matter Tracts in Traumatic Brain	SocNeurosci. 2015 Feb;10(1):27-34. doi: 10.1080/17470919.2014.959618. Epub 2014 Sep 16	International	2014



	Jeannie Lengenfelder	Injury			
4	Rajagopalan V , Erik P. Pioro	Comparing brain structural MRI and metabolic FDG-PET changes in patients with ALS-FTD	J NeurolNeurosurg Psychiatry	International	2014
5	Cai B, Allexandre D, Rajagopalan V, Jiang Z, Siemionow V, Ranganathan VK, Davis MP, Walsh D, Dai K, Yue GH	Evidence of Significant Central Fatigue in Patients with Cancer-Related Fatigue during Repetitive Elbow Flexions till Perceived Exhaustion	PLoS One. 2014 Dec 22;9(12):e115370. doi: 10.1371/journal.pone.0115370. eCollection 2014.	International	2014
6	Subhendu Kumar Sahoo, Chandra Shekhar	A Fast Final Adder for A 54-bit Parallel Multiplier for DSP Application	International Journal of Electronics (Taylor & Francis)	International	2011
7	S. K. Sahoo, Anu Gupta, Abhijit R. Asati and Chandra Shekhar	A Novel Redundant Binary Number to Natural Binary Number Converter	Journal of Signal Processing Systems (Springer),	International	2010

### Journal Publications (non-indexed)

#	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	AV Pavan Kumar, Alivelu M Parimi, K Uma Rao,	A Comparative Study of Model Based Design of PV cell in MATLAB/Simulink/Sims cape	International Journal of Advanced Trends in Computer Science and Engineering , Vol. 3 , No.1, Pages : 37 – 42	International Journal	2014
2	SpandanaParamkusham , K. M. M. Rao, B. V. V. S. N. Prabhakar Rao,	Automated Approach for Qualitative Assessment of Breast Density and Lesion Feature Extraction for Early Detection of Breast Cancer,	TECHNIA, International Journal of Computing Science and Communication Technologies, VOL.6 NO. 1,3July. 2013 (ISSN 0974-3375)	International	2013
3	M.K. Kaushik, Y. Yoganandam	Dynamic Spectrum Sensing By Channel Information Table in Cognitive Radios	IOSR Journal of Electronics and Communication Engineering (IOSRJECE), ISSN : 2278-2834 Volume 2, Issue 2 (July-Aug 2012), PP 14-21	International	2012
4	Sandeep Saini, A. Mahesh Kumar, SreehariVeeramachane ni, M. B. Srinivas	An Alternate Approach to Buffer Insertion for Delay and Power Reduction in VLSI	J. Low Power Electronics 6(3)	International	2010



		Interconnects			
5	Abhijit Asati, Subhendu Kumar Sahoo and Chandrashekbar	An Improved 16-bit Booth Encoded Wallace Tree Multiplier	International Journal of Computational Intelligence and Telecommunication Systems	International	2010

### Conference Publications

SL No	Authors	Title of the Publications	Details of the Conferences	National/International	Year
1	SpandanaParamkusham, ShivakshitPatri, MmraoKunda and Prabhakar Rao B.V.V.S.N,	A New Features Extraction Method based on Polynomial Regression for the assessment of Breast Lesion Contours	2015 International Conference on Industrial Instrumentation and Control (ICIC)	International	2015
2	Manu Gupta, B.V.V.S.N. Prabakar Rao, VenkateswaranRajagopalan, Abhijit Das, C.Kasavadas	Volumetric Segmentation of Brain Tumor Based on Intensity Features of Multimodality Magnetic Resonance Imaging	IEEE International Conference on Computer, Communication and Control, MGI Indore, INDIA. September 10 - 12, 2015. Paper identification number (IC4_5214)	International	2015
3	VenkateswaranRajagopalan, Erik P Pioro	Sequential PET and MRI in a patient with ALS-FTD reveal worsening brain metabolism and cortical thinning with disease progression	ALS/MND Symposium, Miami, Florida, USA, Dec 2015 (Accepted)	International	2015
4	Shashank Solomon, and Runa Kumari	Slotted Dielectric Resonator Antenna for Broadband Applications	IEEE Global Conference on Communication Technologies, GCCT-2015, Kanyakumari, India, Apr 2015	International	2015
5	SoumyaGanguly, Abhishek Mittal, Syed Ershad Ahmed	A unified flagged prefix constant addition-subtraction scheme for design of area and power efficient binary floating-point and constant integer arithmetic circuits	APCCAS 2014	International	2014
6	Avinash S. Vaidya, T. S. L. Radhika, M. B. Srinivas, MannanMridha	Estimation of Arterial Stiffness through Pulse Transit Time Measurement	BIODEVICES 2014	International	2014
7	Abhilash K. N, M. B. Srinivas	A reconfigurable 0-L1-L2 S-MASH2 modulator with	SoCC 2014	International	2014



		high-level sizing and power estimation.			
8	B. Naveen Kumar Reddy, M. Chandra Sekhar, SreehariVeeramachaneni, M. B. Srinivas	A Novel Low Power Error Detection Logic for Inexact Leading Zero Anticipator in Floating Point Units	VLSI Design 2014	International	2014
9	Ch. Santosh Varma, Syed Ershad Ahmed, M. B. Srinivas	A Decimal/Binary Multi-operand Adder Using a Fast Binary to Decimal Converter	VLSI Design 2014	International	2014
10	Sai Phaneendra P., Chetan Vudadha, SreehariVeeramachaneni, M. B. Srinivas	An Optimized Design of Reversible Quantum Comparator	VLSI Design 2014	International	2014
11	Pal, Subhankar; Vudadha, Chetan; Phaneendra, P.Sai; Veeramachaneni, Sreehari; M.B. Srinivas	A New Design of an N-Bit Reversible Arithmetic Logic Unit	<i>Fifth International Symposium on Electronic System Design (ISED)</i>	International	2014
12	Kaushik M.K, Kalyan P.V, Satpathi D.K, Yoganandam Y.,	Evaluation of spectrum usage based on peak excursion, using an off the shelf spectrum analyzer	Wireless Computing and Networking (GCWCN), 2014 IEEE Global Conference on , vol., no., pp.1-5, 22-24 Dec. 2014	International	2014
13	SS Harikiranreddy; MadhuriBayya; UM Rao; BVSSN Prabhakar Rao	Zigbee based prioritized load management for submarines	International conference on Smart grid. CPRI Bangalore	International	2014
14	AnantSaradhi, BVSSN Prabhakara Rao,	Comparison of performance in P3HT:PCBM bulk heterojunction organic solar cells of different thickness	Electronics, Computing and communication Technologies, IEEE Int.	International	2014
15	Koushik Kumar, ChittineniSahithi, RasmitaSahoo and Subhendu Kumar Sahoo	Ultra Low Power Full Adder Circuit Using Carbon Nanotube Field Effect Transistor	IEEE International Conference on Power, Control and Embedded Systems	International	2014
16	ApurvaKumari, Philip Joseph Thomas and S K Sahoo	Single Image Fog Removal Using Gamma transformation and median filtering	IEEE INDICON 2014	International	2014
17	KothaSrinivasa Reddy, Sumit Bajaj, Subhendu Kumar	Shift Add Approach Based Implementation of RNS-FIR Filter using Modified	IEEE TENCON-2014	International	2014



	Sahoo,	Product Encoder			
18	KothaSrinivasa Reddy, Rahul Patel, Tushar Gupta, SubhendukumarSahoo	A Modified Approach for Reconfigurable FIR Filter Architecture	IEEE TENCON-2014	International	2014
19	Kotha, S.R.; Singhvi, A; Sahoo, S.K.	A New Approach for High Performance RNS-FIR Filter Using the Moduli Set $\{2^k-1, 2^k, 2^{k-1}-1\}$	IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE 2014)	International	2014
20	Kotha, S.R.; Vij, S.; Sahoo, S.K.	A study on strategies and Mutant factor in differential evolution algorithm for FIR filter design	Signal Processing and Integrated Networks (SPIN)	International	2014
21	Reddy, KothaSrinivasa, Sumit Bajaj, and SahooSubhendu Kumar	Shift add approach based implementation of RNS-FIR filter using modified product encoder.	In TENCON 2014-2014 IEEE Region 10 Conference	International	2014
22	Reddy, KothaSrinivasa, Rahul Patel, Tushar Gupta, and SahooSubhendu Kumar	A modified approach for reconfigurable FIR filter architecture	In TENCON 2014-2014 IEEE Region 10 Conference	International	2014
23	Srinivas Reddy Kotha, DevendraBilaye, Utkarsh Jain and Subhendu Kumar Sahoo	An Approach for Efficient FIR Filter Design for Hearing Aid Application	18th International Symposium on VLSI Design and Test (VDAT 2014),IEEE	International	2014
24	Srinivas Reddy Kotha, Sumit Bajaj and Subhendu Kumar Sahoo	An LUT Based RNS FIR Filter Implementation for Reconfigurable Applications	18th International Symposium on VLSI Design and Test (VDAT 2014),IEEE	International	2014
25	R. Nittala, A. M. Parimi, K. Uma Rao,	A New Approach for Replenishing DC Link Energy for Interline Dynamic Voltage Restorer to Mitigate Voltage Sag	IEEE 5th International Conference on Intelligent & Advanced Systems (ICIAS2014) Malaysia	International	2014
26	AV Pavan Kumar, Aivelu M Parimi, K Uma Rao	Performance Analysis of a Two-Diode model of PV cell for PV based generation in MATLAB	IEEE International Conference on Advanced Communication Control & Computing (ICACCT),	International conference but held in India	2014





27	AV Pavan Kumar, Alivelu M Parimi, K Uma Rao	A Comparative Study of Model Based Design of PV cell in MATLAB/Simulink/Simscape	ICETETS	National	2014
28	Prasant Kumar Pattnaik and VellaluruNeharika	Novel Optical MEMS Pressure Sensors incorporating Waveguide Bragg Gratings on Diaphragms	IEEE International Conference on Sensors, IEEE SENSORS 2014, 2-5 November 2014, Valencia, Spain.	International	2014
29	K. Narayan, P.K.Pattnaik, D.B Ghare and T. Srinivas	Analysis of Optofluidic Coupling for Integrated Lab-on-a-chip Application	IEEE Healthcare Innovation and Point-Of-Care Technologies, IEEE HIT POCT 2014, 8-10 October 2014, Seattle, Washington, USA.	International	2014
30	Prasant Kumar Pattnaik and VellaluruNeharika,	Temperature insensitive Optical MEMS Pressure Sensor using Long Period Gratings on a Circular Diaphragm	IEEE International Conference on Optical MEMS and Nano Photonics, 17-21 August 2014, Glasgow, UK.	International	2014
31	Prasant Kumar Pattnaik, VellaluruNeharika and K. Narayan	Temperature Insensitive Optical MEMS Pressure Sensor	International Conference on MEMS and Sensors, ICMEMSS 2014, 18-20 December 2014, IIT Madras, Chennai, India.	International	2014
32	Prasant Kumar Pattnaik and VellaluruNeharika	Novel Optical MEMS Pressure Sensor Based on Tilted Gratings	12th International Conference on Fiber Optics and Photonics, PHOTONICS 2014, 13-16 December 2014, IIT Kharagpur, India	International	2014
33	Syed Ershad Ahmed, M.B.Srinivas	Design of Low Power MAC unit in High Performance DSP Systems	21st IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC)	International	2013
34	Syed Ershad Ahmed, PawanSastry, SreehariVeeramanchani, M.B.Srinivas	A High Accuracy, Low Memory Logarithmic Converter	Fourth International Symposium Highly-Efficient Accelerators and Reconfigurable Technologies (HEART)	International	2013
35	K.V.S.Sashank,SyedErshadAhmed,Abhishek Singh and M. B Srinivas	Modified truncation Schemes for Recursive Multipliers	IEEE Prime Asia 2013, Visakhapatnam, pp.111-113, 19 <sup>th</sup> -21 <sup>st</sup> December 2013	International	2013



36	Goutham Makkena, BVVSN Prabhakara Rao and M. B. Srinivas	Uniform Approximation of Gaussian Wavelet for Bio-Medical Signal Processing in Analog Domain	IEEE Engineering in Medicine and Biology Society (EMBC'13), 3-7 July 2013, at the Osaka International Convention Center, in Osaka, Japan.	International	2013
37	Kaushik M.K, Kalyan P.V, Parulekar, A, Yoganandam, Y	Free-band detection from spectrum sensing and analysis	Microelectronics and Electronics (PrimeAsia), 2013 IEEE Asia Pacific Conference on Postgraduate Research in , vol., no., pp.280,283, 19-21 Dec. 2013	International	2013
38	Kaushik M.K, Sai T.S, Yoganandam, Y	Enhanced energy detection and moving average thresholding for cognitive femtocell networks	Microelectronics and Electronics (PrimeAsia), 2013 IEEE Asia Pacific Conference on Postgraduate Research in , vol., no., pp.250,253, 19-21 Dec. 2013	International	2013
39	P.Spandana, Dr.KundaM.M.Rao, SMIEEE, Dr. B. V. V. S. N. Prabhakar Rao, Dr.Jwalasrikala	Novel Image Processing Techniques for Early Detection of Breast Cancer, Mat lab and Lab view implementation	IEEE Point-of-Care Healthcare Technologies (PHT), pp:105-108, January 2013.	International	2013
40	SpandanaParamkusham, Kunda.M.M.Rao, B.V.V.S.N.Prabhakar Rao	Automatic detection of Breast Lesion Contour and analysis using Fractals through Spectral methods	Proc. of Int. Conf. on Advances in Computer Science, AETACS,Elsevier	International	2013
41	P.Spandana, Dr.KundaM.M.Rao, SMIEEE, Dr. B.V.V.S.N.Prabhakar Rao	Early stage detection of breast cancer using novel image processing techniques, Matlab and Labview implementation"	IEEE Conference on Advanced Computing Technologies (ICACT), 2013 15th International Conference on,21-22 Sept. 2013,Page(s): 1 - 5	International	2013
42	Kotha, S.R.; Singhvi, A; Sahoo, S.K	An efficient RNS-FIR filter implementation using the moduli set $\{2k - 1, 2k, 2k-1 - 1\}$	IEEE Asia Pacific Conference on Postgraduate Research	International	2013
43	Agarwal, Dhruv, K. S. Reddy, and S. K.	FIR filter design approach for reduced hardware	IEEE Intelligent Systems and Signal	International	2013



	Sahoo	with order optimization and coefficient quantization	Processing (ISSP)		
44	Haripriya, T. ; Parimi, A.M. ; Rao, U.M.,	Modeling of DC-DC boost converter using fuzzy logic controller for solar energy system applications	IEEE Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia),	National	2013
45	R. Nittala, A. M. Parimi, K. Uma Rao	Phase Shifting Transformer based Interline Dynamic Voltage Restorer to Mitigate Voltage Sag	Annual IEEE INDICON, Mumbai, India	National	2013
46	Srinivasa Rao Vutla, Prasant Kumar Patnaik, Kannan Ramaswamy, Srinivasa Prakash Regalla, and M. B. Srinivas	Effect of Particles and Contaminants on the Static Response of a Rectangular MEMS Diaphragm Due to Adverse Clean Room Environment – Simulation Studies	IEEE Prime Asia 2013, Visakhapatnam, pp.111-113, 19 <sup>th</sup> -21 <sup>st</sup> December 2013	International	2013
47	K.V.S.Sashank , Syed Ershad Ahmed	A Reconfigurable Fixed Width Scheme for Recursive Multipliers	IEEE Prime Asia 2013, Visakhapatnam, pp.111-113, 19 <sup>th</sup> -21 <sup>st</sup> December 2013	International	2013
48	Haripriya T	Transmission Expansion Planning in Deregulated Environment	International Conference on Recent Trends in Engineering and Technology (ICRTET 2013)	International	2013
49	Vudadha, C.; Katragadda, S.; Phaneendra, P.S	2:1 Multiplexer based design for ternary logic circuits	IEEE Prime Asia 2013, Visakhapatnam, pp.111-113, 19 <sup>th</sup> -21 <sup>st</sup> December 2013	International	2013
50	Santosh Kumar Jena, M. B. Srinivas	On the Suitability of Multi-Core Processing for Embedded Automotive Systems	CyberC 2012	International	2012
51	Chetan Vudadha, Sai Phaneendra P., SreehariVeeramachani, Syed Ershad Ahmed, N. MoorthyMuthukrishnan, Mandalika B. Srinivas	Design of Prefix-Based Optimal Reversible Comparator	ISVLSI 2012	International	2012
52	Chetan Vudadha, Sai	Design and Analysis of	ISVLSI 2012	International	2012



	Phaneendra P., Syed Ershad Ahmed, SreehariVeeramachaneni, N. MoorthyMuthukrishnan, Mandalika B. Srinivas	Reversible Ripple, Prefix and Prefix-Ripple Hybrid Adders			
53	Vudadha, Chetan; Sai, Phaneendra P; Sreehari, V; Srinivas, M B	CNFET based ternary magnitude comparator	<i>International Symposium on Communications and Information Technologies (ISCIT)</i>	International	2012
54	Chetan Vudadha, Goutham Makkena, M. VenkataSwamyNayudu, Sai Phaneendra P., Syed Ershad Ahmed, SreehariVeeramachaneni, N. MoorthyMuthukrishnan, M. B. Srinivas	Low-Power Self Reconfigurable Multiplexer Based Decoder for Adaptive Resolution Flash ADCs	VLSI DESIGN 2012	International	2012
55	Vudadha, C.; Phaneendra P, S.; Makkena, G.; Sreehari, V.; Muthukrishnan, N.M.; Srinivas, M.B.	Design of CNFET based ternary comparator using grouping logic	<i>2012 IEEE Faible Tension FaibleConsommation (FTFC)</i>	International	2012
56	Vudadha, Chetan; Sreehari, V.; Srinivas, M. B.	Multiplexer Based Design for Ternary Logic Circuits	<i>8th Conference on Ph.D. Research in Microelectronics and Electronics (PRIME)</i>	International	2012
57	Arun, A.; Srivastava, H.; Mada, S.; Srinivas, M.B	Analog VLSI design of neural network architecture for implementation of forward only computation	2012 Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia)	International	2012
58	S. K. sahuo, K.S. Reddy	A High Speed FIR filter Architecture based on Novel Higher Radix Algorithm”	IEEE Proceeding of 25th International conference on VLSI design	International	2012
59	Ganguly, Soumya, Abhishek Mittal, and Syed ErshadAhmed	A Reconfigurable Parallel Prefix Ling Adder with modified Enhanced Flagged Binary logic	2012 Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia)	International	2012



60	Kumar, V. Chetan; Phaneendra, P. Sai; Ahmed, Syed Ershad; Sreehari, V.; Muthukrishnan, N. Moorthy; Srinivas, M.B	A Reconfigurable INC/DEC/2's Complement/Priority Encoder Circuit with Improved Decision Block	<i>International Symposium on Electronic System Design (ISED)</i>	International	2011
61	Chetan Kumar, V; Sai Phaneendra, P; Ershad Ahmed, S; Sreehari, V; MoorthyMuthukrishnan, N; Srinivas, M.B	Higher radix sparse-2 adders with improved grouping technique	<i>TENCON 2011</i>	International	2011
62	Phaneendra, P.S.; Vudadha, C.; Ahmed, S.E.; Sreehari, V.; Muthukrishnan, N.M.; Srinivas, M.B.	Increment/decrement/2's complement/priority encoder circuit for varying operand lengths	<i>11<sup>th</sup> International Symposium on Communications and Information Technologies (ISCIT)</i>	International	2011
63	Chetan Kumar, V.; Sai Phaneendra, P.; Ershad Ahmed, S.; Veeramachaneni, S.; MoorthyMuthukrishnan, N.; Srinivas, M.B.	A Prefix Based Reconfigurable Adder	<i>IEEE Computer Society Annual Symposium on VLSI (ISVLSI)</i>	International	2011
64	Vudadha, C.; Veeramachaneni, S.; Srinivas, M.B.	Non-linear partitioning for decimal logarithm approximation	<i>Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia)</i>	International	2011
65	Chetan Kumar, V.; Sai Phaneendra, P.; Ahmed, S.E.; Veeramachaneni, S.; MoorthyMuthukrishnan, N.; Srinivas, M.B.	A Unified Architecture for BCD and Binary Adder/Subtractor	<i>14<sup>th</sup> Euromicro Conference on Digital System Design (DSD)</i>	International	2011
66	K.S. Reddy, M.S. Bharath, Subhendu Kumar Sahoo, Shantanu Sinha, Jaipol Reddy	Design of Low Power, High Performance FIR Filter using Modified Differential Evolution Algorithm	IEEE Proceeding of International Symposium on Electronic System Design (ISED)	International	2011
67	S. K. Sahoo, Chandra Shekhar	Delay Optimized Array multiplier for Signal and Image processing	IEEE Proceeding of International Conference on Image Information	International	2011



			Processing(ICIIP)		
68	SrinivasaReddy.K, S. K. Sahoo, Soumya Chakraborty	A High Speed, High Radix 32-Bit Redundant Parallel Multiplier	IEEE Proceeding of International Conference on Emerging Trends in Electrical and Computer Technology	International	2011
69	Mahesh Kumar Adimulam, Krishna Kumar Movva, SreehariVeeramachaneni, N. MoorthyMuthukrishnan, Mandalika B. Srinivas	Low power, variable resolution pipelined analog to Digital converter with sub flash architecture	APCCAS 2010	International	2010
70	GudipatiKalyan, M. B. Srinivas	An efficient ODT calibration scheme for improved signal integrity in memory interface	APCCAS 2010	International	2010
71	Mahesh Kumar Adimulam, Krishna Kumar Movva, SreehariVeeramachaneni, N. MoorthyMuthukrishnan, M. B. Srinivas	A low power, variable resolution two-step flash ADC	ACM Great Lakes Symposium on VLSI 2010	International	2010
72	P. Jamwal, M. B. Srinivas, G. V. K. Sarma, M. M. Krishna:	A new approach to minimize leakage power in nano-scale VLSI adder	ICWET 2010	International	2010
73	Vasanthlyer, S. Sitharamalyengar, Garimella Rama Murthy, NandanParameswaran, Dhananjay Singh, Mandalika B. Srinivas	Effects of channel SNR in mobile cognitive radios and coexisting deployment of cognitive wireless sensor networks	IPCCC 2010	International	2010
74	Mahesh Kumar Adimulam, SreehariVeeramachaneni, N. MoorthyMuthukrishnan, M. B. Srinivas	A Novel, Variable Resolution Flash ADC with Sub Flash Architecture	ISVLSI 2010	International	2010
75	Sandeep Saini, Mahesh Kumar Adimulam, SreehariVeeramachaneni, M. B. Srinivas	An Alternative approach to Buffer Insertion for Delay and Power Reduction in VLSI Interconnects	VLSI Design 2010	International	2010



76	S.K. Sahoo, R.S.N. Kumar Kattamuri	Computation Sharing Multiplier Using Redundant Binary Arithmetic	Proceeding of Asia Pacific Conference on Circuits and Systems (APCCAS 2010)	International	2010
77	AnanthSaradhi, Rakhee, P Sankar Ganesh	A WIRELESS SENSOR NETWORK APPROACH TO MONITOR PROCESS TEMPERATURE IN COMPOSTING HEAPS	ICMID	International	2010

**23. Details of patents and income generated: NIL**

**24. Areas of consultancy and income generated**

#	Area	Income Generated (lakhs)
1	Battery Modelling	2
2	Wireless Communication	9.9
3	Radar Algorithms	9.95
4	Healthcare	3.2

**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**

Sr No	Name of faculty	laboratories/institutions industries visited	National/ International	Duration
1	Dr. Subhendu Kumar Sahoo	Nanyang Technological University, Singapore	International	31st May to 16th July 2013
2	Dr. Alivelu	Seimens, Mumbai	National	summer 2014
3	Dr. Pattnaik	Seimens, Mumbai	National	summer 2014
5	Prof. SanketGoel	Kyungpook National University, Daegu, Korea	International	March 2015
		University of Maribor, Slovenia	International	June 2015
		IIT Kanpur	National	Feb and July 2015
		CEERI Pilani	National	Aug 2015
		Institute of Nanotechnology, Mohali, Chandigarh	National	April 2015



**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

**Prof. M. B. Srinivas**

National Committee: Member, NAAC Peer Review Committee

**Prof. Bhuvanewari G**

- Membership in the Editorial board of journals: Associate Editor of the Journal of IE(I) Series B published by Springer.
- Membership in Professional Bodies
  - A Senior member of IEEE in the Industry Applications Society
  - Fellow of IET-UK
  - Fellow of INAE
  - Life Fellow of IETE
  - Life Fellow of IE (I)
  - Life member of ISTE

**Awards**

- Expert Committee member constituted by the President of India on Solar Power and Energy Sector for 2 years with effect from October 2014.
- Elected as a Fellow of IET -UK and a Fellow of INAE with effect from 2013.
- Supervised the B.Tech project entitled "DSP control of PMSG based WECS" for which Indulkar award was given in May 2013.
- Appointed as ABB Chair Professor at IIT Delhi from Sept 2012 for a period of 2 years.
- Recipient of Excellence in Teaching award at IIT Delhi in 2012 for being the best teacher in Jan - May 2012 semester.
- Supervised the B.Tech project entitled "DSP 2812 control of SCIG based WECS" for which Bombawale award was given in May 2012.
- Recipient of Bimal Bose Award 2011 for significant contributions in Power Electronics from IETE, India.
- For supervising the best Ph.D. thesis entitled "Power Quality Improvement at AC mains in variable frequency Induction Motor Drives" received awards for Foundation for Innovation and Technology Transfer – FITT, IIT, Delhi and Indian National Academy of Engineers (INAE) and also from IIT-Roorkee in the year 2007.
- Won third prize in the National Design Competition-1985 conducted by the Institution of Engineers, India for designing a complete speed control scheme for a chopper fed DC drive.
- Recipient of National Merit Scholarship from the Government of India.

**Other Academic Activities**





- Have been an Expert member of Fast Track proposals committee that awards DST grant to young scientists since Sept 2012; also an expert committee member for evaluating SYST proposals in DST. A member of UGC project evaluation committee.
- Have been a member of Board of Studies in **Anna University Chennai** since March 2012 for a period of 3 years; also a member of Board of Studies for Amrita VidyaPeethm, Coimbatore and Gayathri VidyaParishad, Visakhapatnam.
- Have been the Training and Placement coordinator for EE Dept. IIT Delhi since Sept 2011 for 2 years and enhanced interaction between industries and the institute.
- Have been the Vice-Chair of the IIT-Delhi Open house in 2013.
- Have been the Publicity Chair, Technical Track Chair in various IEEE Conferences like Power India Conference, PEDES and IICPE.

### **Prof. SanketGoel**

#### **Awards, Honors, Certificate courses and Distinctions-**

- 2015-16 Fulbright- Nehru International Education Administrators (IEA) Program to be held during October-November 2015.
- R&D Research Award for Journal Paper publication and Patent filing - Awarded by: Bharat Ratna Professor C.N.R. Rao, FRS on behalf of UPES, Sept 2015.
- R&D Research Award for Journal Paper publication and Patent filing - UPES, Sept 2014.
- Research Coordination and Management-Letter of Appreciation with cash award, by UPES, Jan 2015.
- Outstanding performance award, for International Research Collaboration by UPES, Oct 2013.
- Travel Assistance from Engineering and Physical Science Research Council (EPSRC), UK for Energy and International Development: Understanding Sustainable Energy Solutions in Developing Countries Workshop in Nairobi, Kenya during Dec 2012.
- International Travel Award, from the DST, Govt of India, to present paper to 'Sustainable Energy Technologies', Vancouver, Canada, September 2012.
- Associate Editor, Journal of Nanotechnology, Hindawi Publications, since September 2011.
- Assistant Editor, Human Genome Journal, Springer, January – December 2010.
- WIPO Advanced Course on Biotechnology and Intellectual Property, December 2010
- WIPO General Course on Intellectual Property (DL-101), November 2010

#### **Scientific accomplishments and services-**

- Reviewer of the DST, TSD Program (Government of India) grant applications.
- Led organization of key scientific events, such as NRDC Innovate India 2014, Biannual R&D awards, Nano Energy Conference 2013 etc.



- Chief Coordinator of visits by several prominent and renowned visitors, such as HE Mr. Pranav Mukharjee (President of India during August 2013), Bharat Ratna Prof C N R Rao, FRS (March 2015), Padma Vibhushan Dr. R Chidambaram (Feb 2014).
- Reviewer of several journals (total 12) from Elsevier, ACS, RSC etc.

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level.

Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

Faculty has attended various refresher, orientation & training programs such as:

Dr. Prasant Kumar Pattnaik

1. Undergone Intensive teaching Workshop (ITW) in October 2012.
2. Industry immersion at Siemens Ltd, Mumbai in 16 June-15 July 2014.
3. OPERA Award in Jan 2015 (Grant of Rs 15 lakhs for a period of five years).

Dr. Alivelu Manga Parimi

1. Industry Immersion- 4 weeks in the month of JUNE and JULY 2014: Siemens Mumbai
2. Research Initiation Grant -Rs 2 Lakhs granted in 2012

**2011**

- Mr. V.Chetan Kumar and Ms.M.Subha have attended Winter Faculty development workshop on Analog IC Design held during 20-24 December 2011 at Texas Instruments, Bangalore.



## 2012

- Dr. Alivelu participated the workshop “Recent Trends in Switch Gear and Protection”, Hyderabad, 5-7 July, 2012.
- Dr. Alivelu participated the guest lectures “High Voltage DC & Flexible AC Transmission Systems” By Dr. Narain G. Hingorani IEEE Life Fellow, Hyderabad, 2012.
- International Collaboration & Industry Immersion: MOS-AK/GSA(India) Workshop:2012 on Compact modeling for Microsystems design - March 16-17, 2012 at IIIT. Noida

## 2013

- AnanthaSaradhi attended the workshop on “Organic Electronic Materials and Devices - 2013, NIT Suratkal, from December 19-21, 2013.
- Dr S K Sahoo visited NTU Singapore during 5th June to 8th July 2013 under University immersion program funded by BITS, Pilani.
- Dr K M M Rao conducted a workshop on 26th -27th Oct,2013 at BITS,Hyderabad on “Advances in image processing and applications” around 150 participants from BITS and out side universities and industry attended the event.
- About 12 Speakers delivered the talks and NI has provided hands on Laboratory software experiments in image processing using vision modules of Lab View.

## 2014

- Dr. Alivelu and Dr. Pattnaik participated in the Industry Immersion program at Seimens, Mumbai during summer 2014.
- Letter of Intent between BITS Pilani Hyderabad and University Technology Petronas, Malaysia for research collaboration was received

### 28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects**

**100%**

- percentage of students doing projects in collaboration with other universities /industry / institute

**100% (For all the final year students it is mandatory to do either Practice school or Thesis)**



**29. Awards / recognitions received at the national and international level by Faculty Doctoral / post doctoral fellows Students**

- Syed Ershad Ahmed Won Gold Leaf Award for the paper " A Reconfigurable Fixed Width Scheme for Recursive Multipliers" presented at Prime Asia, 19-21 Dec. 2013, Visakhapatnam, India
- Chetan Kumar Vudadha won Bronze leaf certificate for paper "2:1 multiplexer based design for ternary logic circuits" at Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia), 2013.
- Syed Ershad Ahmed was awarded travel grant of 900 Euros for attending and presenting the paper International Symposium on Electronic System Design (ISED), 7-9 October 2013, Istanbul ,Turkey.
- Chetan Kumar Vudadha Project titled "Smart Floor cleaning bot" was shortlisted for Phase 1 of "Texas Instruments Innovation Challenge India Analog Design Contest 2014"
- P K Pattnaik received Certificate of Appreciation for being a reviewer of the journal "Optical Engineering" published by SPIE.
- Fulbright Fellow 2015-16 - Fulbright- Nehru International Education Administrators (IEA) Program to be held during October-November 2015.

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

#	Seminars/Conferences/Workshops	Title	Date	Source of funding	National/International	No. of participants
1	Conference	IEEE INDICON 2011	Dec16-18 2011	IEEE Hyderabad and BITS	National	200
2	Workshop	Advances in Image Processing and Applications	26-27 October 2013	IEEE Hyderabad and BITS	National	100
3	Seminar on	National Seminar on Indian Space Technology-Present	1 May 2014	BITS and ISRO	National	100



		and Future (NSIST-2014)				
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**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.

**32. Student profile programme-wise:**

**Academic Year 2010**

Name of the Programme	Applications Received	Selected		Pass percentage	
		Male	Female	Male	Female
EEE	14662	49	21	100	100
ECE		46	24	100	100
E&I					
ME (ES)	4428	10		100	100
ME (ME)		6		100	100
Ph.D	425	0		100	100

**Academic Year 2011-12**

Name of the Programme	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
EEE	12880	54	20	100	100
ECE		66	17	100	100
E&I		0	0	100	100
ME (ES)	4571	19	2	100	100
ME (ME)		0	0	100	100
Ph.D	461	2	4	100	100

**Academic Year 2012-13**

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female



EEE	15714	58	16	100	100
ECE		56	25	100	100
E&I		26	14	100	100
ME (ES)	4825	7	3	100	100
ME (ME)		3	1	100	100
ME (E&C)		9	2	100	100
Ph.D	1173	5	1	100	100

### **Academic Year 2013-14**

Name of the Programme	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
EEE	15120	57	21	100	100
ECE		62	19	100	100
E&I		32	8	100	100
ME (ES)	5549	5	3	100	100
ME (ME)		0	0	100	100
Ph.D	964	7	3	100	100

### **Academic Year 2014-15**

Name of the Programme	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
EEE	18717	64	9	100	100
ECE		60	21	100	100
E&I		27	7	100	100
ME (ES)	5172	4	4	100	100
ME (ME)		0	0	100	100
Ph.D	773	1	1	100	100



### 33. Diversity of students \*

Name of the program (refer to question no 4)	% of students from the same university	% of students from other universities within the state	% of students from universities outside the state	% of students from other countries
ME Programs	10%	20%	70%	

\*This is the approximate data given. The department does not maintain the records for this.

### 34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Not

We do not capture this data through any formal process

### 35. Student progression

Student progression	Percentage against enrolled*
UG to PG	12%
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed <ul style="list-style-type: none"><li>• Campus selection</li><li>•</li></ul>	88%
Entrepreneurs	NIL

\*This is the approximate data given. The department does not maintain the records for this.

### 36. Diversity of staff

Percentage of faculty who are graduates	PhD
of the same university	13%
from other universities within the State	13%
from universities from other States from universities outside the country	74%

### 37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: NIL



### 38. Present details of departmental infrastructural facilities with regard to

- **Library:** The department harnesses the campus library which has adequate resources for the department.
- **Internet facilities for staff and students:** The Information Processing Cell (IPC) takes care of the internet facility for the whole campus.
- **Students' laboratories**

#	Lab	Room
1	Communication Systems	I
2	Analog Electronics	
3	Digital signal Processing	II
4	Microelectronic Circuits	
5	Digital Electronics	III
6	Microprocessors	
7	VLSI	IV
8	Power Electronics	V
9	Communication Networks	VI
10	Electrical Machines	VII
11	Control and Instrumentation Systems	VIII
12	Signals & Systems	IX
13	Microwaves and Antennas	
14	Image Processing	X
15	Electro Mechanical Energy conversion	XI
16	Power System Lab	

#### d. Research laboratories

- VLSI
- Semiconductor Modeling
- Signal & Image Processing
- ARM Intelligent Embedded Systems





**39. List of doctoral, post-doctoral students and Research Associates**

**a. from the host institution/university**

- Gautham Makkena
- Chetan Kumar
- Subha Mada
- Avinash S Vaidya
- Pavan Kumar Reddy
- Bala Subramanyam

**b. from other institutions/universities**

1. Sai Phaneendra 2. Madhuri Bayya 3. Syed Ershad Ahmed 4. Ananth Saradhi	5. Haripriya T 6. Paramkusham Spandana 7. M.K. Kaushik 8. Koneru Gopala Krishna	9. Ramchandra Nittala 10. Pavan Kumar V 11. Apurva Kumari 12. Ganjikunta Ganesh Kumar
13. Poorna Lakshmi U 14. Manu Gupta 15. Gayatri 16. Thippana Vishnu Charan	17. Y V V P M Pavan Kumar 18. MD Hasnat Ali 19. Saravanan Sethuraman 20. C V Diyanesh Babu	

**40. Number of post graduate students getting financial assistance from the university.**  
100%

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

Before developing any new programs, cross-campus discussion is held and after having the consensus, the new program is presented to senate for approval. One new program was developed for General Electric company in Hyderabad for an ME Program, "Electronics & Control", for their employees.

**42. Does the department obtain feedback from faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

The department conducts periodic meetings and takes inputs on the course being taught by individual faculty. These inputs are discussed in the cross campus committee meeting and if any changes are needed, they are presented to senate for approval. In the last few years, the department has taken initiative to start electives such as: Control system laboratory, power systems laboratory, Electric and Electronics circuits laboratory, EM Fields and Microwave laboratory.



**students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

There are class committees, consisting of student members and faculty, are formed for each semester. The issues relating to curriculum, teaching & learning experiences are discussed in the meetings and the feedback is set into practice by the stakeholders.

**alumni and employers on the programmes offered and how does the department utilize the feedback?**

The placement division facilitates the meetings with the prospective employers, conducting interviews for the students. The department representative interacts with them and collects the feedback on the quality of the students, utility of the curriculum to industry etc and the feedback is put into practice.

**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

Lectures by expert	Topic	Date
Dr. Chandra Shekhar, Director, CEERI Pilani	Beyond Moore's law	06-03-2010
Dr.Takako Hashimoto, Associate Professor, Chiba University of Commerce, Japan	Image Processing	19-08-2010
Dr.Shankaran Menon, Intel, Texas, USA	Design for Test (DFT) and Design for Debug (DFD) of High-speed, Low-Power VLSI and System-on-chips (SoCs)	10-10-2010
Prof.L.K.Maheshwari, former Vice Chancellor, BITS, Pilani	Overview of Microelectronic Circuits	22-11-2010
Krishna Naishadham, School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA	Antenna Design for Wireless Sensor Nodes Comprising Carbon Nano-Sensors	07-11-2014
Dr. Samudrayya, Retired Deputy Director, ISRO		Oct 2013
Padmabhushan Dr. K. Radhakrishnan, Chairman, ISRO	Indian Space Technology-Present and Future (G.D Birla Memorial Lecture)	1 <sup>st</sup> May 2014
Dr. Kaushik Roy, Purdue University	Spin as State Variable for Computation: Prospects and Perspectives	15 <sup>th</sup> April 2014



Workshops/Seminars	Topic	Date
Workshop on Lab View by NI professional	Lab View	During ATMOS 2014
IEEE INDICON 2011	Lectures on various conference topics	Dec16-18 2011
Advances in Image Procerssing and Applications	Image Processing	26-27 October 2013
National Seminar on Indian Space Technology-Present and Future (NSIST-2014)	Electronics in Space applications	May 1, 2014

**45. List the teaching methods adopted by the faculty for different programmes.**

The faculty of the department follows the norms set by the department strictly: The norms are:

1. Following the course handout
2. Conducting weekly meetings among the faculty group for multi section courses to discuss and the steer the subsequent lectures.
3. Conducting periodic surprize quizzes and assignments.
4. Following youtube lectures of popular professors in the respective fields and adapt the best practices.
5. Provide live examples from recent developments in the field of study to supplement the classroom teaching
6. Assign mini projects to students to enhance practical learning
7. Conduct laboratory experiments regularly to consolidate the class room learning.

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

The instruction division collects student feedback on a given course and the faculty teaching the course. This is done anonymously in a written form, by interacting with class committee members and using the mails in a 24X7 feedback link. This feedback is passed on to individual faculty and also to HoD. HoD interacts with the faculty and discusses the corrective actions if needed.

**47. Highlight the participation of students and faculty in extension activities.**

- EEE faculty and students are involved in many extension activities, such as NIRMAAN, YUVA (Youth under visionary action), HOPE and SIRI (society involved in reinventing India on campus).
- Further, the students have participated in many campus-wide events, such as Cloth Donation, Tree Plantation, Blood Donation, Campus Clean Up programs, Career Planning, Medical Camps, Hudhud Relief Program, Campus Tour for



School Students.

- EEE students have also participate in the all-round education project, Ignite, and National Sevice Scheme (NSS)

**48. Give details of “beyond syllabus scholarly activities” of the department.**

**CONSAT** is annual student design-build-launch competition for space-related topics Organized by the American Astronautical Society (AAS) and American Institute of Aeronautics and Astronautics (AIAA). BITS students are involved in end-to-end life cycle of a complex engineering project, from conceptual design, through integration and test, actual operation of the system and concluding with a post-mission summary. Students got selected for the final round of this competition. Through these competitions students have the opportunities to meet eminent scientist and engineers in NASA.

**ROBOCON** Robocon is Robotic Contest, which is an interesting game - cum - intellectual exercise for budding engineers and their enthusiastic instructors, determined to innovate and create machines for producing desired results. This contest is mainly sponsored by Asia Pacific Broadcasting Union (ABU) which includes Doordarshan (Prasarbharati) of India. Every year our students participate in this contest and gather experience from concept design of a system of robots programmed to perform according to rules of the game played on a high precision technical Contest Area.

**TI Innovation Programmes** This program is sponsored by Texas Instruments aiming to promote IC-based system design among student community. Every year our students participate in this program and gain knowledge in Analog IC and embedded processor which they can impart both in academia and industry.

**Sand-box participation** - SandBoxx is a multi-disciplinary prototyping lab provides students a platform to develop technologies in the domains of internet of things, wearable technologies and consumer electronics. It has equipment’s worth of ₹20 lakh available 24X7 to be used by students. Through SandBoxx, students with innovative ideas will get support from faculty, industry and BITS alumni from across the world.

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL**

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

**Students**

- Choice based credit system
- Focus on project work (internal and external)
- Lot of hand-on exposure
- Focus on problem-solving and related experimentations



### Faculty

- Provision of University-wide encouragement to research
- Provision of internal funds (seed funds and other competitive grants)
- Provision of contingency funds to for scholarly activities
- Encouragement to participate in meetings/conferences

### 51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

<p><b>STRENGTHS:</b></p> <p>i. Laboratories: The UG labs : Worth ~ 6.0 Crore</p> <p>ii. Placement</p> <p>iii. Students' quality</p> <p>iv. Expertize in most of the EEE areas</p> <p>v. Research Scholars</p>	<p><b>WEAKNESSES:</b></p> <p>i. Faculty: Only 23 faculty for large chunk of students: (S/T &gt; 40)</p> <p>ii. Faculty holding PhD are 15 out of 23</p> <p>iii. Squeezed Laboratory Space: Larger laboratories will be beneficial</p>
<p><b>OPPORTUNITIES:</b></p> <p>i. Hyderabad being an active Electronics and Biomedical Hub, opportunities for industry collaboration exists.</p> <p>ii. BITS is a clear leader in Engineering education in Hyderabad</p>	<p><b>THREATS:</b></p> <p>None to the best of our knowledge</p>

### 52. Future Plans of the department

This is the growth plan for the Department

Description	2015	2016	2017	2018	2019
No. of FD students	1099	1150	1220	1308	1504
No. of HD students	12	30	54	62	72
No. of PhD students	14	20	25	35	50
No. of faculty	23	31	42	57	76
Faculty Student Ratio	1:40	1:36	1:32	1:28	1:23
HD & PhD to FD students ratio	1 : 16	1 : 18	1 : 15	1 : 12	1 : 09
% of FD students placed	80 %	80 %	85 %	90 %	90 %
% of HD students placed	75 %	90 %	90 %	90 %	90 %
PG programs	2	3	3	4	5



Labs	21	24	27	30	35
External Funding	10	30	60	120	200
Space (ft2)	17500	17500	25000	25000	40000

**53. Any other information regarding your department which you would like to include.:** None



## HYDERABAD Campus: Evaluative Report of the Department HUMANITIES AND SOCIAL SCIENCES

1. **Name of the Department** - 2008 – 2012 – Languages Group, 2012 – 2014 – Department of Languages and Humanities, 2014 onwards – Department of Humanities and Social Sciences.
2. **Year of establishment of the Department** - 2008
3. **Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
  - 1 The department offers Ph.D programs in Humanities and Social Sciences
  - 2 As the department does not have its own graduate and post-graduate programs , it offers compulsory courses at the graduate and post-graduate level for all BITS students ( Technical Report Writing & Technical Communication ), and a host of elective courses in Humanities and Social Sciences(of which students must take a minimum of two as part of their under graduate program)
5. **Interdisciplinary programmes and departments involved** – Nil
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**  
Note: some of our structured courses like Practice School and Thesis/Dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons** -- Nil
8. **Examination System:** Semester and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments** – Nil
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate) - Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	1	1
Associate Professors		2	2
Asst. Professors		5+(3)=8	5
Others		2	2

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and



proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./M.Phil. students guided for the last 5 years
Arup Maharathna	PhD.	Professor	Development Economics, Demography, Population Studies	34 years	1
M.G.Prasuna	Ph.D	Associate Professor	English comparative Literature	25 yrs	1 – (completed Ph.D) 1- (Pursuing Ph.D)
Sunny Jose G.	PhD	Associate Professor	Development Studies, Public Policy, Gender Studies	9 years	NA
ArunaLolla	Ph.D	Assistant Professor	Communication Skills, Indian Philosophy and Spiritual Poetry	Ten Years Ten Months (Total)	NA
Maya Vinai	Ph.D	Assistant Professor	Indian English Fiction, Diasporic Fiction, Postcolonial Literature, Gender Studies	6 years	Ongoing:1
Srinivas Sajja	Ph.D.	Assistant Professor	Sociology	5	NA
A. Maria Mercy Amutha	PhD	Assistant Professor	New Historicism, Literature	10	NA
Santosh Kumar Mahapatra	Ph. D.	Assistant Professor	Language Assessment	7.5 years	NA
ShamuelTharu	Mphil	Visiting Faculty	Security Studies	6	NA
Olympia Bhatt	MPhil	Lecturer	English Literature	8	NA

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors – Prof.Nageshwar , Mr. PranavaSinghal ( guest faculty )**





**13. Percentage of classes taken by temporary faculty – programme-wise information**  
**Approximately 10/135 (total number of electives taken by temp/total no of electives offered since 2010 by HUM faculty)= 7%**

**14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)**

As the department does not have its own students and caters to all BITS students for one compulsory course and two compulsory electives a rough estimate of the ratio would be 180:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual – NIL**

**16. Research thrust areas as recognized by major funding agencies**

Indian English Fiction, Development Studies, Governance, Comparative Indian Literature, Indian Theatre, Postcolonial studies, Gender Studies,, Natural Resources Management (Water/Forest), Livelihoods, Agrarian Change, Public Policy, Literature and Cultural Studies, Philosophy : Ethics and Indian Philosophy

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects: NIL**

**Ongoing projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Self and Social Exclusion: Representation of Parsi community in Theatre and Films	M.G.Prasuna	UGC	Rs.7,28,600	3 years

**18. Inter-institutional collaborative projects and associated grants received – NIL**

a) National collaboration

b) International collaboration

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received. – NIL**

**20. Research facility / centre with - NIL**

- state recognition
- national recognition
- international recognition



**21. Special research laboratories sponsored by / created by industry or corporate bodies**  
- NIL

**22. Publications:**

SI No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	31
2	Monographs	0
3	Chapters in Books	13
4	Edited Books	3
5	Books with ISBN with details of publishers	2
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	15
7	Citation Index – range / average	6-1/2
8	SNIP	*
9	SJR	*
10	Impact Factor – range / average	0-1.06/0.1
11	h-index	1-6/2

\*Not available for journals in which publications have been made.

**Details of the publications as per the number give above (Give details in the last five years)**

SL No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	Arup Maharatna	'The Demography of Social Stratification in India'	In: Sáenz, Rogelio, Embrick, David G., Rodríguez, Néstor P. (Eds.) International Handbook of the Demography of Race and Ethnicity, Springer Netherlands (ISBN 978-90-481-8890-1).	International	2015
2	M.G.Prasuna Maya Vinai	Theatre Art Techniques for Professional Development	Humanities and Social Sciences Review (google scholar ) e-ISSN -2165-6258	International	2015
3	Swati Alok, Jaayasree.R and Prasuna M. G	Predicting the Conflict style Intention to Manage Relationship Conflict: An	South Asian Journal of Management (EBSCO &Proquest ) ISSN: 0971-5428	International	2014



		Exploratory extension of Theory of Planned Behaviour			
4	Maya Vinai, M.G.Prasuna and Jayashree Hazarika	Globalization of Cuisines : Rethinking the role of food in the recent Indian English Fiction	International Journal of English (Ulrichsweb, USA, Global serials directory, Open J-Gate ) Impact factor: 1.021 ISSN 2278-0742.	International	2014
5	M. G.Prasuna	Socio-cultural perspectives of Muslim minorities in the short stories of Saleem – A Study	Contemporary Discourse ( ISSN – 0976-3686 )	International	2014
6	Swati Alok, Prasuna M.G.	Vignette Development: An Illustrations in Conflict research	AIMS International Journal of Management (ISBN : 978-93-81505-48-9)	International	2014
7	M. G.Prasuna, Maya Vinai,	Nonsense Verse in English Language	International Journal of English (Ulrichsweb, USA, Global serials directory, Open J-Gate )ISSN 2278-0742	International	2013
8	M. G.Prasuna	Writing 'like' a Woman: An Analysis of the Short Story The Fox by D.H.Lawrence	International Journal of English and Literature (Impact Factor(JCC) : 4.4049; Index Copernicus Value(ICV) : 3.0; IBI Factor : 3.2; )ISSN(Print) : 2249-6912	International	2013
9	M.G.Prasuna	Book - Patterns of Divergence and Convergence: A Comparative Study of the Literary Works of Dickens and Chilakamarti'.	LAP LAMBERT Academic Publishing. ISBN: 978-3-659-18731-5	International	2012



10	M .G.Prasuna	Ideals-How true to Life? An Analysis of Shashi Deshpande's 'Roots and Shadows	International Journal of English (Ulrichsweb, USA, Global serials directory, Open J-Gate )ISSN 2278-0742	International	2013
11	Maya VinaiM.G.Prasuna	Quest for Identity: Parsi culture and sensibility in the works of playwrights Gieve Patel and Cyrus Mistry	The Criterion : An International Journal in English ( EBSCOHOST, INDUS COPERNICUS ) ISSN – 0976-8165	International	2013
12	M.G.Prasuna	Technical Communication : Trends and Concerns	Journal of Theory and Practice in Language Studies (EBSCO, EZB; GALE;) ISSN 1799-2591	International	2012
13	Swati Alok and Prasuna M.G.	Application of Theory of Planned Behaviour in Conflict Management ( book chapter )	Management Research: Current trends and Practices ISBN : 978-93-81505-48-9	National	2013
14	Aruna LollaM.G.Prasuna	Early strain of Indo-English poetry – A potent guide for future poets: With special reference to Sarojini Naidu	Journal of Higher Education and Research Society (ISSN 2321-9432)	International	2012
15	Lolla, Aruna	"Language of the Soul for Cross-Cultural Intercourse"	Interfacing ELT with Culture and Technology Direction for New Classroom (Seminar Volume), ISBN: 978 81 8360 187 0, Jain Brothers, New Delhi.	National	2012
16	Lolla, Aruna	"A Report on the Mock Interviews Conducted for Students of MCA IV Semester in April 2011 at the ELTC"	Theory and Practice in Language Studies, Vol. 2, No. 2, ACADEMY Publisher, ISSN: 1799-2591, Finland.	International	2012



17	Lolla, Aruna	“Need to Design a Literature-based Syllabus for Students of Professional Courses”	Trends in English Language Teaching: the changing Landscape of English(Seminar Volume) , ISBN: 978-81-311-0382-1, Commonwealth Publishers, Delhi.	National	2012
18	Lolla, Aruna and Prasuna, M.G.	“Early strain of Indo-English Poetry-A potent guide for future poets: with a special reference to Sarojini Naidu”	The Journal of Higher Education and Research Society (JHERS) ISSN No.2321-9432, Vol. 1, Issue 1.	National	2013
19	M.G. Prasuna, Maya Vinai and ArunaLolla.	“Nonsense Verse in English Language”	International Journal of English Literature, Language and Skills	National	2013
20	Maya Vinai&Jayashree Hazarika	Re-assessing the Kerala Model Woman in Fiction: An interview with author JaishreeMisra	Asiatic: IIUM Journal of English Language and Literature. 9.1(2015): 193-198.	International	2015
21	Jayashree Hazarika & Maya Vinai	A Comparative Study of the Works of Anita Nair and Vikram Seth	The IUP Journal of English Studies	International	2014
22	Maya Vinai&Jayashree Hazarika	Caste Hegemony versus Communism: The Kerala Society in Anita Nair’s Novels.	The Quest (estd 1987) Vol.28. No.2, December 2014.	National	2014
23	M.G Prasuna& Maya Vinai.	Theatre Art Techniques for Professional Development.	Humanities and Social Sciences 3.2(2014): 235-240.	International	2014
24	Maya Vinai, M.G.Prasuna&Jayashree Hazarika.	Globalizatiion of Cuisines : Rethinking the role of food in the	International Journal of English : Literature, Language & Skills. Issue 4, ISSN 2278-	International	2014



		recent Indian English Fiction.	0742		
25	M. G.Prasuna, Maya Vinai&ArunaLolla.	Nonsense Verse in English Language	International Journal of English: Literature, Language and Skills,	International	2013
26	Maya Vinai.	Diasporic Consciousness in the works of Anita Nair	International Journal of the Frontiers of English Literature and patterns of ELT. Vol.1, Issue 1	International	2013
27	Maya Vinai& M.G Prasuna.	Parsi Sensibility in the works recent Parsi Playwrights	Criterion. Vol. IV. Issue	National	2013
28	Maya Vinai	Stereotyping in the works of Rohinton Mistry	Rohinton Mistry: The Writer Par Excellence. Ed. Suman Bala. New Delhi: Prestige	National	2013
29	Maya Vinai	Caste and Gender in the works of Anita Nair	New Delhi: Prestige Publishers, 2014	National	2014
30	Maya Vinai	Campus Politics in the works of Malayattoor Ramakrishnan	Muse India. M1: Vol.51	National	2013
31	Jayashree Hazarika &Maya Vinai	Representation of the Great Indian Middle class in 21st Century Indian Fiction	The Commonwealth Review	National	forthcoming
32	Jayashree Hazarika &Maya Vinai	Representation of the Middle Class in the works of Vikram Seth.	The Quest	National	2015
33	Jayashree Hazarika &Maya vinai	Comestible Culture JhumpaLahiri's The Namesake and Interpreter of Maladies	The Commonwealth Review	National	Accepted for Forthcoming Issue
34	Srinivas Sajja, L.V.Prasad and P.Stevenraj	'Displacement and Livelihoods:	Book - Small Experiments in	National	2015



		Distant Fruits of Development in KSEZ	Sustainability'		
35	Srinivas Sajja	Repositioning Public Governance: A Sociological appraisal of WUAs in South India	Cambridge Scholars Publishing	International	forthcoming
36	Srinivas Sajja and ShamuTharu	Small Experiments in Sustainability'	Edited vol.	National	2015
37	A. Maria Mercy Amutha and G. Christopher	A Forgotten Tribe.	Ed.G.N.Devy ,Geoffry V Davis, KChakravathy. Cultural Aphasia: Language Loss of the indigenous.	International	2016
38	Santosh Mahapatra Kumar	Training Language Learners to Use Feedback: An Action Research at BITS Pilani, Hyderabad	"FORTELL" (ISSN No. 2229-6557, Issue No. 31, July 2015)	National	2015
39	Santosh Mahapatra Kumar	"Assessment"	A chapter on 'Assessment' of the proposed textbook for English language teachers at Department of State Educational Research and Training, Government of Karnataka	National	forthcoming
40	Santosh Mahapatra Kumar	"Unit 6 UNDERSTANDING IMPLIED AND SUGGESTED MEANINGS"	Chapter of a proposed undergraduate English language textbook for Dr. B. R. Ambedkar Open University, Hyderabad	National	forthcoming
41	Santosh Mahapatra Kumar	"UNIT-5 IDENTIFYING THE INTRODUCTION, DEVELOPMENT AND	Chapter of a proposed undergraduate English language textbook for Dr. B. R. Ambedkar Open University,	National	forthcoming



		CONCLUSION IN A TEXT”	Hyderabad		
42	Santosh Mahapatra	Kumar “Teacher Assessment Literacy Assessment English Secondary Schools” and of in	In a book (Yking Books, Jaipur) edited by Md. MojiburRehman, Associate Professor, Indian School of Mines University, Dhanbad	National	forthcoming
43	Santosh Mahapatra	Kumar "Using web 2.0 tools for teacher professional development: a case study"	In "Innovation in English Language Teacher Education" edited by George Pickering and Professor Paul Gunashekar and published by British Council (ISBN 978-0-86355-765-1)	International	2015
44	ShamuelTharu	Human Rights and Counter Terrorism in India	In Human Rights in the 21st Century Shyam Kumar (ed) Academic Press New	National	forthcoming
45	ShamuelTharu	Constitutional and Operational Implications of the National Counter Terrorism Centre	In Federalism and Governance in a Globalising World: Issues and Challenges Balveer Aurora et al (eds.)	National	forthcoming
46	ShamuelTharu	Small Experiments in Sustainability'	Edited vol.	National	2015
47	ShamuelTharu	“Sustainable Practice: Scope and Methods for the New Millennium”	In Small Experiments in Sustainability' Srinivas Sajja and ShamuelTharu (eds)	National	2015
48	Olympia Bhatt	"Musical Beginnings and Trends in 1920s Indian Cinema"	The Sounds of Silent Films: New Perspectives on History, Theory and Practice edited by Claus Tieber and Anna K Windisch Palgrave	International	2014





			Macmillan, London		
49	Olympia Bhatt	"The Circuits and Politics of Sound Technology in India"	International Journal of Social Sciences and Humanities, Volume II, 110-121	National	2013

### Conference Details

SL No	Authors	Title	Details of the Conference	National/International	Year
1	M.G.Prasuna & Maya Vinai	Theatre Techniques Professional Development Art for	International Journal of Arts and Sciences(IJAS) Conference held at Harvard campus, Boston, USA, May 26-30, 2014.	International	2014
2	M.G.Prasuna & Maya Vinai	Mapping Madness : A Critical Analysis of Jerry Pinto's Em and the Big Hoom	Conference on "Globalism and The New Literatures" organized by Indian Society for Commonwealth Studies	International	2014
3	M.G.Prasuna	The Quest Theme in the works of Lawrence and Chalam: A Comparative Analysis"	10th CLAI Biennial International Conference on " Social Imagination in Comparative Languages, Cultures and Literatures" at Central Univ, Rajasthan	International	2011
4	M.G.Prasuna	Quest for a New Order in the Literary Works of DH Lawrence and GV Chalam: A Comparative Study"	12th International D.H. Lawrence Conference held at Sydney, Australia,	International	2011
5	M.G.Prasuna	Socio-cultural Perspectives of Muslim Community	International Conference on Minority Discourses	International	2012



		in the short stories of Saleem : A Study	Across Cultures” organized by the Comparative Literature Association of India and University of Rajasthan		
6	M.G.Prasuna	Writing ‘like’ a Woman: An Analysis of the short story ‘The Fox’ by D.H.Lawrence”	International Conference on English Language and Literature by International Academic and Industrial Research Solutions (IAIRS)	International	2013
7	M.G.Prasuna	“Crossing Classroom confines: Essential Skills for the Real World” ,	National Conference on “ A Paradigmatic Shift in ELT: Empowerment of the English Classroom”, Hyderabad	National	2013
8	M.G.Prasuna	Real Skills for the Real World: Understanding Practice-oriented Education Reforms”	International conference organized by IIM, Kashipur at India Habitat Centre, New Delhi	International	2013
9	M.G.Prasuna&ArunaLolla	Early Strain of Indo-English Poetry- A Potent Guide for Future Poets: With special reference to Sarojini Naidu	National conference organized by Literary Insight Journal, Pune	National	2013
10	M.G.Prasuna&PranavaSinghal	Adding Value to Technical Education Through Theatre Arts	National Conference on “Rethinking the Role of Humanities In Technical Education : Pedagogies and Possibilities, BITS Pilani, Hyderabad Campus	National	2013
11	Lolla, Aruna	"The Effect of the Mantras on the Human Mind, Personality and Life"	2nd Annual International Conference on Humanities & Arts in a Global World, Greece	International	2015



12	Lolla, Aruna	“Improving Communication Skills in English of Technical students through Learner-centered approach”	National Conference on Rethinking The Role Of Humanities In Technical Education: Pedagogies and Possibilities, 18th and 19th October, 2013 organized by Department of Languages and Humanities, BITS Pilani Hyderabad campus.	National	2013
13	Lolla, Aruna and Prasuna, M.G.,	“Early strain of Indo-English Poetry-A potent guide for future poets: with a special reference to Sarojini Naidu”	“Early strain of Indo-English Poetry-A potent guide for future poets: with a special reference to Sarojini Naidu”	International	2013
14	Lolla, Aruna	“Language of the Soul for Cross-Cultural Intercourse”	Interfacing ELT with Culture and Technology Direction for New Classroom, at Third International ELTAI Rajasthan Conference on Interfacing Language, Culture and Technology, 8th and 9th October 2012, organized by Department of Humanities and Languages, BITS Pilani Rajasthan.	International	2012
15	Sunny Jose	Is Female Empowerment a Measurable Concept?: A Review of Empirical Studies from India	Demographic Challenges in India: Current Scenario and Future Direction	National	2015
16	Maya Vinai&Vinai S	Negotiating faith and culture: Lives and world-view of boatmen in Banaras	Indian Institute of advanced Studies (IIAS), Shimla	National	2015
17	Maya Vinai	Challenging Matrilineal Identities Lost in Space and	IIT Roorkee&Sahitya Academy	National	2015



		Time: A cross examination of Kerala women through the representations from selected Indian English Fiction			
18	Maya Vinai	Re-Imagining the narratives of the Gulf Diaspora in Literature	South Asian Literary association, Vancouver Canada.	International	2015
19	Maya Vinai&M.G Prasuna	Mapping Madness: A Critical Analysis of Jerry Pinto's Em and the Big Hoom	Indian Society for Commonwealth Studies at Oucip	International	2014
20	Maya Vinai	Trauma Narratives in the works of Parsi writers,	St Thomas College, Kerala	National	2013
21	Maya Vinai	Globalization of Cuisines: Rethinking the role of Food in the recent Indian of English Fiction	International Seminar on South Asian Literature & Culture, Pune	International	2013
22	Maya Vinai	Diasporic consciousness in the works of Anitha Nair	Mahatma Gandhi Institute of Technology, Hyderabad	National	2012
23	Srinivas Sajja	Organic Farming and transformation of Livelihoods: A case study of Enabavi, Warangal District	Seminar organized by Kakatiya University, Warangal - Agrarian Crisis and Farmers' Suicides: Challenges and Strategies, 23 - 24 November 2012	National	2012
24	Srinivas Sajja	Decentralized Water Resources Management, Changing Farm Practices and Livelihood Enhancement: A case study from Godavari Basin	International Conference on Democratic Decentralisation and People's Participation during 20-23 rd December 2012. Jointly organised by Kerala Institute of Local Administration & International	International	2012



			Sociological Association at KILA, Thrissur.		
25	Srinivas Sajja	Climate Change, Market and Livelihoods: Case Studies from Andhra Pradesh	XXXVIII All India Sociological Conference, during 27 - 29 December, 2012 at MS University, Udaipur.	National	2012
26	Srinivas Sajja	Negotiating Empowerment of Women through PNRM: Case Studies from Andhra Pradesh	UGC-SAP National Seminar on Rural Women and Natural Resources Management during 15-16 March at Sri Krishnadevaraya University, Anantapur	National	2013
27	Srinivas Sajja	Deepening Democracy through Decentralization: An analysis of policy and potential in Andhra Pradesh	UGC-SAP National Seminar on Development Issues in India: Major Challenges to Twelfth Five Year Plan during 25-26 March, 2013 at Osmania University, Hyderabad	National	2013
28	Srinivas Sajja	Rainfall Variability and Adaptation Strategies: A Case Study from NizamSagar Project	XXXIX All India Sociological Conference, during 27 - 29 December, 2013 at Karnataka State Open University, Mysore	National	2013
29	Srinivas Sajja, L.V. Prasad and StevenrajPadakandla	Displacement and Livelihoods: Distant Fruits of Development in KSEZ	National Conference on 'Technology, Policy and Community: Small Experiments in Sustainability' 14-15 March at BITS PILANI Hyderabad Campus	National	2014
30	Srinivas Sajja	Rainfall Variability, Coping Strategies and Livelihoods: Case Study from Godavari Basin, India	XVIII ISA World Congress of Sociology(Facing an unequal World: Challenges for Global Sociology), during 13-	International	2014



			19 July at Yokohama, Japan		
31	Srinivas Sajja	Negotiating Empowerment through Innovation: Women and Local Governance in Telangana	International Conference on "Gandhi, Gram Swaraj and Decentralisation" at Kerala Institute of Local Administration, Thrissur, Nov. 27-29	International	2014
32	Srinivas Sajja	The decline of Agriculture as an occupation: Case studies from Karnataka, Telangana and Andhra Pradesh	XL (40th) All India Sociological Conference, organized by Indian Sociological Society at Mahatma Gandhi Kashi Vidyapeeth, Varanasi, Nov. 28,29 and Dec.1	National	2014
33	Srinivas Sajja	Institutional reforms in Irrigation Management: A review of Policy and Implementation issues in Telangana and Andhra Pradesh	National Workshop on Participatory Irrigation Management at VNRVJIT, Hyderabad	National	2015
34	Maria Mercy Amutha	Innovative Teaching in a Technical Report Writing Classroom.	IAFOR International Conferences on Education and on Language Learning, Dubai.	International	2015
35	Santosh Kumar Mahapatra	Using web 2.0 tools for teacher professional development: a case study	"Ensuring Quality in English Language Teacher Education" (Fifth International Teacher Educators Conference)- organized by British Council in Hyderabad (February-March 2015)	International	2015
36	Santosh Kumar Mahapatra	"Michael West's Bilingualism and His Teaching Materials: An Evaluative Study"	One-day Symposium on the Historiography of English Education in India conducted by the Centre for English Language Studies, University of Hyderabad (January	National	2015



			29, 2015)		
37	Shamuel Tharu	Suicides in Higher Education	Developmental Issues in India: major Challenges to the 12th Five year Plan"	National	2013
38	Shamuel Tharu	Constitutional and operational Challenges posed by NCTC	Federalism and Governance in a Globalising World: Issues and Challenges"	International	2015
39	Shamuel Tharu	Human rights aspects of counterterrorism	Human rights in the 21st Century"	National	2015
40	Olympia Bhatt	The Talkies and Its Singing Stars: Analysing Aural Stardom in 1930s Bombay Cinema	Hollywood's Musical contemporaries and competitors in the early sound film era", University of Surrey, July 2014	International	2014
41	Olympia Bhatt	Coping with the Archive, Working with Materialism: An Approach to Early Indian Cinema Historiography	"Frames of Reference" with the theme "Seeing Through the Screen.", TATA Institute of Social Sciences, Mumbai,	National	2013
42	Olympia Bhatt	Coping with the Archive, Working with Materialism: An Approach to Early Indian Cinema Historiography	"Mayabazaar: Reviewing 100 years of Indian cinema", Christ University, Bangalore, February 2014	National	2014
43	Olympia Bhatt	The Sound of Music: Musical Beginnings and Trends in 1920s Indian Cinema	Conference titled "Silent Film Sound: History, Theory & Practice", Christ Albrechts University Kiel, February 2013	International	2013



- 23. Details of patents and income generated – NIL**
- 24. Areas of consultancy and income generated - NIL**
- 25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**
- Prof Arup Maharatna, - New School of New York May 2013.
  - Prof Arup Maharatna, - NEUPA, 2015
  - Dr ArunaLolla, -, Academic Staff College, University of Hyderabad 2011
  - Dr.M.G.Prasuna – OUCIP – 2013
- 26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**
- Dr Srinivas Sajja, Co-convener and Treasurer, Research Committee 03-Economy, Polity & Society; All India Sociological Society
- 27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level. Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award. The details are as follows

Three faculty have received RIG from the university. All faculty have availed contingency grants for national and international conferences and workshops and for field work. Seed grant is also available from the university upto Rs 10 lakhs for faculty to develop collaborative research projects. These are competitively allocated and the Department had applied for it.

The university conducts Intensive Teaching Workshops, for all new faculty involving exposure to institutional functioning and best practices in teaching. Dedicated cells for





research support and external funding constantly update faculty on research and teaching opportunities.

In addition, University immersion program enables faculty to refresh teaching and research capability through hands on participation in other departments in universities in India and abroad. Similarly the industry immersion program allows for faculty to engage substantially with NGOs and industries in order to apply and receive feedback on faculty expertise.

Additionally on an individual level faculty have attended a variety of such programmes as listed below

Dr Srinivas Sajja: Professional development session held in Yokohama at the World Congress on writing and editing a book or monograph,

**Dr Santosh Mahapatra:**

a) Trainer Training Workshops

- December 2014 – Trainer training workshop organized by Regional English Language Office, US Embassy, New Delhi, at English Foreign Languages University (EFLU), Hyderabad
- December 2014 – Trainer training workshop organized by Regional English Language Office, US Embassy, New Delhi, at English Foreign Languages University (EFLU), Hyderabad

b) Leadership Development Certificate Programmes

- November 2013 - Leadership Development Certificate Program (online) offered by Teaching English to Speakers of Other Languages Association (TESOL, US)

c) Research Writing Workshops

- September 2013 - "Joining the Conversation : Writing for International Publications"- organized by ELT@I Hyderabad Chapter and conducted by Ms. Dee Broughton, Senior English Language Fellow, US at G. Narayanamma Institute of Technology and Science for Women, Hyderabad

d) Assessment Workshops

- May 2013 - "Clear and Engaging Assessment: Using Rubrics and Free Web Tools"- conducted by English Language Specialist Daniel Ringold at the US Consulate General, Hyderabad
- March 2012 - "Continuous Comprehensive Evaluation"- organized by British Council and conducted by Adrian Tennant (British Council) at Taj Krishna, Hyderabad
- April 2013 - "Developing Materials for Students with Low English Proficiency" (Part II)- conducted by the Centre for English Language Studies, University of Hyderabad
- November 2012 - 6. "Developing Materials for Students with Low English Proficiency" (Part I)- conducted by the Centre for English Language Studies, University of Hyderabad



## 28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects**

Total number 44 (percentage cannot be calculated as we have no graduate program)

- percentage of students doing projects in collaboration with other universities /industry / institute **NIL**

## 29. Awards / recognitions received at the national and international level by

- Prof. Sunny Jose was awarded the first University of Liverpool-India Fellowship in 2014
- Dr. Srinivas Sajja was RULNR Visiting Fellow, Centre for Economic and Social Studies during 15th June 2010 to 14th June 2011.
- Doctoral / post doctoral fellows- NA
- Students - NA

## 30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.

- National Conference On “Rethinking The Role Of Humanities In Technical Education: Pedagogies & Possibilities “ On 18 -19th October, 2013. (Sponsored by State Bank of Hyderabad and Orient BlackSwan)
- National Conference On Technology, Policy And Community: Small Experiments In Sustainability Held During 14th And 15th Of March 2014. (Sponsored by State Bank of Bikaner and Jaipur)
- A Workshop on Advanced Scientific Writing Skills in collaboration with Achievers’ League USA was held on 12th November 2014 by Department of Humanities and Social Sciences.
- A workshop on “Learning Basic Sanskrit” from 26th February to 5th march, 2014. Mr. KrupaluVogeti, a renowned Sanskrit scholar was the resource person.
- A workshop, in association with NSS, on “Leveraging Corporate Social Responsibilities For Angel Investing In Young Start Ups” By Farhan Pettiwala President ENACTUS INDIA, Alumnus Harvard School of Business on 31st Jan 2015
- Workshop on The Art Of Mind Control: A Workshop on Bhagavad-Gita on Feb 7, Saturday, 2015.
- In association with Enactus Worldwide - Bphc Chapter And Cova Hyderabad Conducted a Round Table Discussion on Peace, Diplomacy and Culture With the delegates of the India-Pakistan Culture Connect Initiatives on Friday the 14th February 2014. Six delegates from Pakistan from the arts and sciences and journalism engaged in discussions with students moderated by Dr Nagershwar Rao.
- In association with The NSS BPHC conducted a day long workshop on "Energy and



Carbon Footprinting Analysis" on September 16, 2014. The resource persons were Sagar Dhara, an IIT Kanpur alumnus, an environmental engineer and an environmental policy consultant.

- Interview Skills Workshop On 12/9/2010
- Workshop For Non-Teaching Staff: Communicate With Confidence (Soft skills At the Workplace) Conducted On 22/12/2010
- In association with Osmania University Centre for International Programmes organised a special interactive session titled " Technology and Literature - A Walking Tour - Photography, the Phonograph and the Typewriter " by Micheal Wutz, Brady Distinguished Professor, Weber State University, USA, on 16th November, 2013, from 2.00 - 5.00 pm.
- Workshop on Research Methods for First degree and Higher degree Thesis students. on Saturday 14th September, 2013. The workshop was to introduce students to research methods, practices and effective techniques of thesis writing.

**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.

**32. Student profile programme-wise:**

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
Ph.D. (2010-11)	425	00	03	100	100
Ph.D. (2011-12)	461	01	01	100	100

**33. Diversity of students**

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from other universities outside the State	% of students From other countries
PhD	0%	50%	50%	0%

**34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. – NIL**



### 35. Student progression - NIL

	Student progression	Percentage against enrolled
	UG to PG	NA
	PG to M.Phil.	NA
	PG to Ph.D.	NA
	Ph.D. to Post-Doctoral	0%
	Employed	NA
☒	Campus selection	
☒	Other than campus recruitment	
	Entrepreneurs	NA

### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	0
from other universities within the State	50
from universities from other States	50

### 37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period -- 3

### 38. Present details of departmental infrastructural facilities with regard to

#### a. Library -

- Around 3,720 books are available in the area of Humanities and Social Sciences. The library also subscribes to the following online journals :
  - i. JSTOR (Approximately 500 online journals in Humanities)
  - ii. Sage Humanities
  - iii. Journal of Developmental Societies
  - iv. Bioscope Journal

#### b. Internet facilities for staff and students –Internet for all faculty and students available 24/7

#### c. Students' laboratories

- Digital Language Lab ( one teacher console with 24 student consoles) It offers cutting edge software solutions and delivers a truly state- of-the-art Language teaching – learning solutions.

#### d. Research laboratories - NIL



**39. List of doctoral, post-doctoral students and Research Associates**

- a. from the host institution/university 0
- b. from other institutions/universities 4

**40. Number of post graduate students getting financial assistance from the university.**

Not applicable

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

The Department does not offer any independent programmes yet.

**42. Does the department obtain feedback from**

- i. **Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**
  - Course content is reviewed periodically and the Cross campus committee discusses issues raised regarding specific courses.
  - At the Departmental level, grading is commonly discussed and teaching methods and learning feedback shared during departmental meetings.
- ii. **Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**
  - Formal student feedback at an institutional level is part of the standard goal setting and faculty evaluation program. Discussions with the head of Department regarding best practices in teaching-learning-evaluation is a regular event.
  - Faculty receive individual feedback directly from the Instruction Division and are able to perform course correction as and when needed.
  - A diagnostic test was conducted for the first year students, to test their language level and competency. The test was formatted to analyse their listening, reading and writing (grammar and vocabulary). The test was conducted – online, using the Course Management System of the institute (CMS). Remedial classes are conducted for students who need assistance to improve their language skills.
- iii. **alumni and employers on the programmes offered and how does the department utilize the feedback?**
  - Feedback received from University Placement Cell especially regarding English skills and logical skills has led to the re-aligning of the primary course (Technical Report Writing) and auxiliary courses such as Advanced communication in English and Effective Public Speaking to address the specific needs of students.
  - Feedback and suggestions from alumni has resulted in introduction of some of



the current courses and proposed new programs.

**43. List the distinguished alumni of the department (maximum 10) –**

We do not have our own undergraduate program so this point is not applicable. None of the doctoral student has graduate being a very young department.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- A Workshop on Advanced Scientific Writing Skills in collaboration with Achievers' League USA was held on 12th November 2014 by Department of Humanities and Social Sciences.
- The Department organized a workshop on "Learning Basic Sanskrit" from 26th February to 5th March, 2014. Mr. Krupalu Vogeti, a renowned Sanskrit scholar was the resource person.
- The Department organized a workshop, in association with NSS, on Leveraging Corporate Social Responsibilities "For Angel Investing In Young Start Ups" By Farhan Pettiwala president ENACTUS INDIA, Alumnus Harvard School of Business on 31st Jan 2015
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- In association with Enactus Worldwide - Bphc Chapter And Cova Hyderabad Conducted a Round Table Discussion on Peace, Diplomacy and Culture With the delegates of the India-Pakistan Culture Connect Initiatives on Friday the 14th February 2014. Six delegates from Pakistan from the arts and sciences and journalism engaged in discussions with students moderated by Dr Nagershwar Rao.
- In association with The NSS BPHC conducted a day long workshop on "Energy and Carbon Footprinting Analysis" on September 16, 2014. The resource persons were Sagar Dhara, an IIT Kanpur alumnus, an environmental engineer and an environmental policy consultant.
- Languages Group: Interview Skills Workshop On 12/9/2010
- Workshop For Non-Teaching Staff: Communicate With Confidence (Soft skills At the Workplace) Conducted On 22/12/2010
- In association with Osmania University Centre for International Programmes organised a special interactive session titled "Technology and Literature - A Walking Tour - Photography, the Phonograph and the Typewriter" by Micheal Wutz, Brady Distinguished Professor, Weber State University, USA, on 16th November, 2013, from 2.00 - 5.00 pm.
- Workshop on Research Methods for First degree and Higher degree Thesis students. on Saturday 14th September, 2013. The workshop was to introduce students to research methods, practices and effective techniques of thesis writing.
- Conducted a National Conference on "Rethinking The Role Of Humanities In Technical Education : Pedagogies & Possibilities" on 18 -19th October, 2013.



- National Conference on Technology, Policy and Community: Small Experiments in Sustainability held during 14th and 15th of March 2014.

**45. List the teaching methods adopted by the faculty for different programmes.**

- Audio visual and new media enriched
- Experiential learning
- Leveraging students science backgrounds to enhance comprehension of concepts and issues in social science
- Continuous evaluation/Formative assessment
- Use of critical pedagogiesto create engaging and enabling classroom environments and learning outcomes.
- Coherence and rationale of course objectives and structure communicated to students to enable learner autonomy

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Objectives of Department electives

1. Broad-based exposure to humanities and social sciences
2. Development of critical thinking capabilities
3. Development of effective language skills

- The range of electivesoffered fulfilthe above criteria in scope
- Identification of gaps, creation of new electives based on the above objectives
- New courses based on evolving disciplinary and social dynamics
- This monitoring is conducted via regular meetings at the departmental level.

**47. Highlight the participation of students and faculty in extension activities.**

Departmental Faculty is involved as

- NSS Coordinator
- NSS Program Officer
- EnactusCoordinator
- Art of Living Part 1 Basic course coordinator
- Coordinator of extension course on Bhagawad Gita

**48. Give details of “beyond syllabus scholarly activities” of the department.**

- A Workshop on Advanced Scientific Writing Skills in collaboration with Achievers’ League USA was held on on12th November 2014.
- “Learning Basic Sanskrit” from 26th February to 5th march, 2014. Mr. KrupaluVogeti, a renowned Sanskrit scholar was the resource person.
- Workshop on “THE ART OF MIND CONTROL” A Workshop on Bhagavad-Gita on Feb 7, Saturday, 2015.
- Round Table Discussion on Peace, Diplomacy and Culture With the delegates of the India-Pakistan Culture Connect Initiatives on Friday the 14th February 2014.



Six delegates from Pakistan from the arts , sciences and journalism engaged in discussions with students.

- Interview skills workshop on 12/9/2010
- Workshop for nonteaching staff : Communicate with Confidence (Soft skills at workplace) conducted on 22/12/2010
- Special interactive session titled " Technology and Literature - A Walking Tour - Photography, the Phonograph and the Typewriter " by MichealWutz, Brady Distinguished Professor, Weber State University, USA, on 16th November, 2013
- Workshop on Research Methods for First degree and Higher degree Thesis students. on Saturday 14th September,2013.
- Designing and executing developmental field work for students
- Extensive project based courses on a wide range of subjects
- Faculty mentors student groups such as
  - English Language Activities Society
  - HISTORY SOCIETY
  - BITSModel United Nations

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. – NIL**

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

It is a young and expanding department. However there is a considerable research focus. The Department is expanding with the intention of contributing to public policy and development studies education and praxis. It is foraying into innovative language teaching methods.

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>○ The department has begun to attract research scholars from national institutions.</li> <li>○ The department has initiated research projects both with internal and external funding</li> <li>○ The department has young and dynamic faculty who are passionate about teaching and research</li> <li>○ Highly qualified specialists offer guest lectures</li> </ul>	<p><b>Weakness</b></p> <ul style="list-style-type: none"> <li>○ Skewed student to faculty ratio</li> <li>○ Lack of faculty in many of the Humanities and Social Science disciplines</li> <li>○ Not a degree oriented programme</li> <li>○ Faculty spend large proportion of time in evaluation- related activities</li> <li>○ Limited funds for sustained exposure to debates on emerging social science issues</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>○ To improve qualifications</li> </ul>	<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>○ Increase in course load is encroaching</li> </ul>





<ul style="list-style-type: none"> <li>○ Assistance to conduct research in terms of seed grants, Research Initiation Grant</li> <li>○ Sabbatical to prominent research universities in India and abroad</li> <li>○ Financial assistance to attend conferences and various academic programs in India and abroad</li> <li>○ Faculty strengths mirrors rising focus and demand for public policy education and research</li> <li>○ Increased possibilities for contributing to and evaluating governmental policy in the new states of Telangana and Andhra Pradesh.</li> </ul>	<ul style="list-style-type: none"> <li>quality research time</li> <li>○ Humanities departments in technical institutions are less attractive compared to Universities in terms of faculty hiring.</li> <li>○ Emergence of similar multi- disciplinary departments in other universities with greater social science focus and resources.</li> <li>○ Changing knowledge systems with increased access to the internet challenging existing teaching pedagogies</li> <li>○ New dimension of research possibilities inaccessible due to limited and expensive academic resources such as social science and humanities journals etc.</li> <li>○ Distance from major universities prevents engagement on a regular and continuous basis</li> <li>○ Limited departmental funds for sustained exposure to debates on emerging social science issues</li> </ul>
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**52. Future plans of the department.**

- Increase Ph.D scholar intake
- Focus on recruitment of faculty members from diverse areas of research
- Leveraging State government focus missions to fund research and as increased extension activity
- Increased inter-university linkages on focus areas.
- More emphasis on sponsored research projects
- New funding sources actively being identified
- Introduction of departmental discussion papers on a half yearly basis
- Initiate Annual International and National Level Conferences
- Introduce Minor programme in Public Policy
- Regularly conduct workshops on soft skills
- Initiate Certificate programmes in Language and Communication Skills for industry
- Creating robust criteria for evaluation of social science and humanities research quality

**53. Any other information regarding your department which you would like to include.**



## HYDERABAD Campus: Evaluative Report of the Department MATHEMATICS

1. **Name of the Department:** Mathematics
2. **Year of establishment of the Department :** 2008
3. **Is the Department part of a School/Faculty of the university?**

Departments function as independent entities in the university and are not part of any school or faculty.

4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**

Integrated 4 years M.Sc.(Honours)  
Ph.D.

5. **Interdisciplinary programmes and departments involved :** No
6. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**

Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.

7. **Details of programmes discontinued, if any, with reasons :** No
8. **Examination System:** Semester and Choice Based Credit System
9. **Participation of the department in the courses offered by other departments :** No
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate)Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note:**	1	1
Associate Professors		4	4
Asst. Professors		11	10



**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Prof. Addepalli Ramu	Ph.D	Professor	Computational Fluid Dynamics	22	1 (Continuing)
Prof. Bivudutta Mishra	Ph.D	Associate Professor	Cosmology and Relativity, Modified Gravity	12	2 (Continuing)
Prof. Michael Alphonse	Ph.D	Associate Professor	Graph Theory	19	0
Prof. Dipak K Satpathi	Ph.D	Associate Professor	Mathematical Modelling of Biological Systems, Fluid Mechanics, Financial Mathematics	14	1 (Continuing)
Prof. Pradyumn Kumar Sahoo	Ph.D	Associate Professor	Relativity, Cosmology, Dark energy	11	2 (Continuing)
Dr. K. Venkata Ratnam	Ph.D	Assistant Professor	Dynamic optimization mathematical modelling neural networks	5	0
Dr. P. T. V. Praveen Kumar	Ph.D	Assistant Professor	Multivariate data analysis bio statistics	7	0
Dr. TSL Radhika	Ph.D	Assistant Professor	Fluid Dynamics	6	0
Dr. Manish Kumar	Ph.D	Assistant Professor	Pseudo-Differential Operators, Wavelet Analysis, Image Processing	3	0
Dr. Jagan Mohan Jonnalagadda	Ph.D	Assistant Professor	Discrete Fractional Calculus	3	0
Dr. N Kishore Kumar	Ph.D.	Assistant Professor	Numerical solutions to partial differential equations	8	0
Dr. Sumit Kumar Vishwakarma	Ph.D.	Assistant Professor	Seismic Wave propagation	1	0
Dr. Veerendra Vikram Awasthi	Ph.D.	Assistant Professor	Algebraic Topology	7	0
Dr. Debdas Ghosh	Ph.D.	Assistant Professor	Optimization, Fuzzy Geometry	1	0
Dr. Sharan Gopal	Ph.D.	Assistant Professor	Topological Dynamics	0	0

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors : NIL**



13. **Percentage of classes taken by temporary faculty – programme-wise information:** No

14. **Programme-wise Student Teacher Ratio (Refer to Support document for calculation)**  
M.Sc. (Hons.): 17.66:1

15. **Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual :**

*One (Shared support between two departments)*

16. **Research thrust areas as recognized by major funding agencies**

- Cosmology and relativity
- Computational fluid dynamics
- Differential geometry and optimization
- Dynamic optimization
- Functional analysis
- Algorithm and Graph theory
- Mathematical modelling and Multivariate data analysis
- Wavelet analysis and its application
- Discrete fractional calculus
- Numerical solutions to PDE and numerical linear algebra
- Theoretical seismology
- Algebraic topology
- Fuzzy geometry
- Topological dynamics

17. **Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Study of cosmological models in bimetric theory of gravitation	PK Sahoo	UGC	1.8	2012-2014

**Ongoing projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
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1.	Study on cosmological models of the universe with wet dark fluid in alternative theories of Gravitation	Bivudutta Mishra	UGC	1.9	2014-16
2.	Bianchi type cosmological models in modified theories of gravitation	Bivudutta Mishra	SERB-DST	11.088	2014-17
3.	Construction of arbitrary tensor networks using cross approximation	N. Kishore Kumar	NBHM	2.83	2015-2018
4.	A Study of Some Qualitative Properties of Solutions of Nabla Fractional Difference Equations.	Jagan Mohan Jonnalagadda	UGC	6.00	*
5	Title of the project: Security for transmission of images in an open network	Manish Kumar	UGC	6.00	*

\* The results of the projects are displayed in the UGC website, Sanctioned letter yet to receive.

**18. Inter-institutional collaborative projects and associated grants received a) National collaboration b) International collaboration**

No

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

One Project: DST-FIST, 2014

Grant received: 49 Lakhs

**20. Research facility / centre with**

- state recognition : No
- national recognition : One (DST-FIST Grant)
- international recognition :No

**21. Special research laboratories sponsored by / created by industry or corporate bodies**  
: No

**22. Publications:**

Sl No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	87
2	Monographs	0
3	Chapters in Books	0
4	Edited Books	0
5	Books with ISBN with details of publishers:	1*
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	87



7	Citation Index – range / average	0.718-58/ 0.86
8	SNIP	37.4155
9	SJR	37.6581
10	Impact Factor – range / average	0.24-5.436/14.52
11	h-index	41

\*Dr. T.S.L. Radhika, T. K.V. Iyengar, T. Raja Rani published a book on “**Approximate Analytical Methods for Solving Ordinary Differential Equations**”, CRC press (Taylor & Francis group) on November 14, 2014, ISBN-13: 978-1466588158.

**Details of the publications as per the number give above (Give details in the last five years)**

SL No	Authors	Title of the Publications	Details of the Journal	National/ International	Year
1	B.Mishra, P.K. Sahoo & Srikanth Suresh	Non-existence of perfect dark energy fluid in Bianchi type-IV space time	Astrophysics and Space Science, 358, 7.	International	2015
2	B. Mishra, P.K. Sahoo & Ch.B. Siddarth Varma	Dark Energy Cosmological Model for Bianchi Type III space-time with perfect fluid	International Journal of Pure and Applied Mathematics, 99(1), 109-121	International	2015
3	S.K. Tripathy, D. Behera & B.Mishra	Unified dark fluid in Brans-Dicke theory	The European Physical Journal C, 75:149, 1-7.	International	2015
4	P.K. Sahoo & B. Mishra	Higher Dimensional Bianchi Type-III universe with strange quark matter attached to string cloud in general relativity	Turkish Journal of Physics, 39, 43-53	International	2015
5	P.K. Sahoo, B.Mishra & S.K. Tripathy	Kaluza-Klein cosmological model in $f(R; T)$ gravity with $\lambda(T)$	Indian Journal of Physics, DOI: 10.1007/s12648-015-0759-8.	National	2015
6	S.K.J. Pacif & B.Mishra	A singularity free cosmological model in general relativity	Research in Astronomy and Astrophysics (accepted for publication)	International	2015
7	S.K. Tripathy, B. Mishra, G.K. Pandey, A.K. Singh, T. Kumar & S.S. Xulu	Energy and momentum of Bianchi type $VI_n$ Universe	Advances in High Energy Physics, Article ID 705262, 1-8.	International	2015



8	B.Mishra, P.K. Sahoo& S. Tarai	Non-static cosmological model in f(R,T) gravity	Astrophysics and Space Science, 359(15).	International	2015
9	B. Mishra & S.K. Tripathy	Anisotropic dark energy model with a hybrid scale factor	Modern Physics Letter A (accepted for publication).	International	2015
10	D. Ghosh & D. Chakraborty	A Method for Capturing the Entire Fuzzy Non-dominated Set of a Fuzzy Multi-criteria Optimization Problem	Fuzzy Sets and Systems, 272, 1 – 29.	International	2015
11	Jagan Mohan Jonnalagadda	Analysis of a System of Nonlinear Fractional Nabla Difference Equations	International Journal of Dynamical Systems and Differential Equations, 5, (2), 149 – 174.	International	2015
12	N.Shobanadevi&Jagan Mohan	Analysis of Discrete Mittag – Leffler Functions	International Journal of Analysis and Applications, 7(2), 129 – 144.	International	2015
13	Jagan Mohan Jonnalagadda	Analysis of Nonlinear Fractional Nabla Difference Equations	International Journal of Analysis and Applications, 7(1), 79 – 95.	International	2015
14	J.Jagan Mohan	Variation of Parameters for Nabla Fractional Difference Equations	Novi Sad Journal of Mathematics, 44(2), 149 – 159.	International	2015
15	K. VenkatRatnam, B. Krishnamurthy & S. Ramesh	An Empirical Rate Constant Based Model to Study Capacity Fading in Lithium Ion Batteries	International Journal of Electrochemistry (accepted for publication)	International	2015
16	K. VenkatRatnam, P. Raja Sekhara Rao & P .Lalitha	Delay Independent Stability of Co-operative and Supportive Neural Networks	Nonlinear Dynamics and Systems Theory, 15 (2), 184–197.	International	2015
17	M. Kumar, P. Powduri& A. Reddy	An RGB image encryption using diffusion process associated with chaotic map	Journal of Information Security and Applications (Elsevier), 21, pp. 20-30.	International	2015
18	P.K. Sahoo& M. Sivakumar	LRS Bianchi type-I cosmological model in f(R,T) theory of gravity with $\Lambda(T)$	Astrophysics and Space Science(Springer), 357(1):60, 1-12	International	2015



19	P. K. Sahoo, K.L. Mahanta, D. Goit, A.K. Sihna, S.S. Xulu, U.R. Das, A. Prasad & R. Prasad	Einstein energy-momentum complex for a phantom black hole metric	Chinese Phys. Lett. 32(2), 020402	International	2015
20	Madhu P Mamidala, M. Kalikiri, Praveen K. PTV, OmSai R. Vallamkonda, Rajesh N & Vidya Rajesh	Consanguinity in India and its association with Autism Spectrum Disorder	Autism Research, 8(2):224-228.	International	2015
21	T Raja Rani, T S L Radhika & Rajendar P	Comparison of HAM and Numerical solutions for a free convection problem with variable fluid properties, Heat source / sink and Radiation	Journal of Information and Optimization Sciences (accepted for publication).	International	2015
22	T S L Radhika & T Raja Rani	Pulsatile flow of micropolar fluid in an elastic tube – a model developed for estimating arterial stiffness	Asian Journal of Mathematics and Computer Research (accepted for publication).	International	2015
23	T S L Radhika, Aditya A, Rohit P	Comparison of ham and exact solutions for the problem of couple stress fluid flow in a circular pipe	American Journal of Applied Mathematics And Mathematical Sciences (accepted for publication).	International	2015
24	T S L Radhika, T K V Iyengar	Stokes flow of an incompressible couple stress fluid past a porous spheroid	Indian Journal of Mathematics and Mathematical Sciences (accepted for publication).	National	2015
25	T K V Iyengar, T S L Radhika	Stokes Flow Of An Incompressible Micropolar Fluid Past A Porous Spheroid	Far East Journal of Applied Mathematics, Vol 90(2), pp 115-147.	International	2015
26	T K V Iyengar, T S L Radhika	Couple Stress Fluid Past A Porous Spheroidal Shell With Solid Core Under Stokesian Approximation	Journal of Scientific research and reports, 6(1), 43-60.	International	2015
27	D. Ghosh and D. Chakraborty	Analytical Fuzzy Plane Geometry III	Fuzzy Sets and Systems (accepted for publication)	International	2015





28	B. Mishra and P.K. Sahoo	Bianchi type $VI_1$ Cosmological Model with Wet Dark Fluid in Scale Invariant Theory of Gravitation	Astrophysics and Space Sci., 349(1), 491-499	International	2014
29	P.K. Sahoo and B. Mishra, G. Chakradhar Reddy	Axially symmetric cosmological model in $f(R,T)$ gravity	The European Journal of Physics-Plus, 129(49),	International	2014
30	B.Mishra and P.K. Sahoo	Bianchi type $VI_h$ perfect fluid cosmological model in $f(R,T)$ theory	Astrophysics and Space Sci., 352(1).	International	2014
31	P.K. Sahoo and B. Mishra	Cylindrically symmetric cosmic strings coupled with Maxwell fields in bimetric relativity	International Journal of Pure and Applied Mathematics, Bulgaria, 93(2), 275-284.	International	2014
32	B.Mishra and S.K. Biswal	Five Dimensional Bianchi type $VI_0$ dark energy model in general relativity	The African Review of Physics, 9(12), 77-83	International	2014
33	P.K. Sahoo and B. Mishra	Kaluza-Klein dark energy model in the form of wet dark fluid in $f(R,T)$ gravity	Canadian Journal of Physics, 92, 1062-1067	International	2014
34	P.K. Sahoo and B. Mishra	Axially symmetric cosmological model with anisotropic dark energy	The European Journal of Physics-Plus, 129, 196	International	2014
35	P.K. Sahoo and B. Mishra	Bianchi Type III Viscous Fluid Models in Bimetric Theory of Gravitation	The African Review of Physics, 9(56), 451-455	International	2014
36	B.Mishra, P.K. Sahoo, S.K. Tripathy	Pressure anisotropy and dark energy models in scale invariant theory of gravitation	Astrophysics and Space Science, 355, 2193-2201	International	2014
37	D. Ghosh and D. Chakraborty	A new Pareto set generating method for multi-criteria optimization problems	Operations Research Letters 42(2014) 514-521.	International	2014
38	N.Shobanadevi and J.Jagan Mohan	Stability of Linear Nabla Fractional Difference Equations	Proceedings of the Jangjeon Mathematical Society, 17(4), 651 – 657.	International	2014



39	J.Jagan Mohan, N.Shobanadevi, G.V.S.R.Deekshitulu	Stability of Nonlinear Nabla Fractional Difference Equations using Fixed Point Theorems	Italian Journal of Pure and Applied Mathematics, 32, 165 – 184.	International	2014
40	J.Jagan Mohan and G.V.S.R.Deekshitulu	Solutions of Nabla Fractional Difference Equations Using N Transforms	Communications in Mathematics and Statistics, 2(1), 1 – 16.	International	2014
41	Jagan Mohan Jonnalagadda	Solutions of Perturbed Linear Nabla Fractional Difference Equations	Differential Equations and Dynamical Systems, 22(3), 281 – 292.	International	2014
42	G.V.S.R.Deekshitulu and J. Jagan Mohan	Existence and Uniqueness of Solutions of Nabla Fractional Difference Equations	Bulletin of the Marathwada Mathematical Society, 15(1), 73 – 77.	National	2014
43	N. Kishore Kumar	Nonconforming spectral element method for elasticity interface problems,	Journal of Applied Mathematics and Informatics, 32, (5-6), 761-781.	International	2014
44	G. Naga Raju, P. K. Dutt, N, Kishore Kumar and C. S. Upadyay	Nonconforming spectral element method for elliptic partial differential equations with periodic boundary conditions	Applied Mathematics and Computation, 246, 426-439.	International	2014
45	K. VenkatRatnam, P. Raja Sekhara Rao and P .Lalitha	Estimation of Inputs for a Desired Output of a Cooperative and Supportive Neural Network,	International Journal of Emerging Technologies in Computational and Applied Sciences (IJETCAS), 14-536, 99-105.	International	2014.
46	Manish Kumar, D.C. Mishra and R.K. Sharma	A first approach on an RGB image encryption	Optics and Lasers in Engineering (Elsevier), 52, 27–34.	International	2014
47	D.C. Mishra, R.K. Sharma, Manish Kumar and Kuldeep Kumar,	Security of color image data designed by public-key cryptosystem associated with 2D-DWT	Fractals (World Scientific), 22, 1450011–1450026.	International	2014
48	Akhilesh Prasad and Manish Kumar	Boundedness of pseudo-differential operator associated	Proceedings of the National Academy of Sciences, India Section A: Physical Sciences	International	2014



		with fractional Fourier transform	(Springer), 84 (4), 549-554.		
49	K. L. Mahanta, A. K. Biswal, P. K. Sahoo	Bulk viscous string cloud with strange quark matter in Brans-Dicke theory	The European Physical Journal Plus,(Springer),129(7):141, 1-6.	International	2014
50	K. L. Mahanta, A. K. Biswal, P. K. Sahoo	Bianchi type-III dark energy models with constant deceleration parameter in self-creation cosmology	Canadian Journal of Physics 92(4), 295-301.	International	2014
51	T RajaRani, T S L Radhika, RajenderPalli	An Application of HAM for MHD Heat Source Problem with Variable Fluid Properties	Advances in Theoretical and Applied Mechanics 7 (2), 79 – 89.	National	2014
52	T S L Radhika, Ritesh Rai	HAM for finding solutions to coupled system of variable coefficient equations arising in fluid dynamics	Advances in Applied Science Research, 5(5), 70-81.	International	2014
53	T S L Radhika, BLR Deepika	State space Approach for solving Transient Queuing Systems	Transylvanian Journal of Mathematics and Mechanics, 6, 53-57.	International	2014
54	S. K. vishwakarma, S. Gupta	Rayleigh wave propagation: a case wise study in a layer over a half space under the effect of rigid boundary	Archive of Civil and Mechanical Engineering, 14, 181-189.	International	2014
55	S. K. vishwakarma	Torsional wave propagation in a self-reinforced medium sandwiched between a rigid layer and a viscoelastic half space under gravity	Applied Mathematics and computation, 242 (1), 1-9.	International	2014
56	A. Ravishankar, B. Mishra and P.K. Sahoo	Kantowski-Sachs Cosmological Model with Wet Dark Fluid in General Theory of Relativity	Turkish Journal of Physics, 37, 166-171.	International	2013



57	P.K. Sahoo, B. Mishra	Axially Symmetric Space-time with Strange Quark Matter Attached to String Cloud in Bimetric Theory	International Journal of Pure and Applied Mathematics, Bulgaria, 82(1), 87-94.	International	2013
58	P.K. Sahoo, B. Mishra	String cloud and domain walls with quark matter for plane symmetric cosmological model in bimetric theory	Journal of Theoretical and Applied Physics, 7, 1-5.	International	2013
59	G.C. Samanta, S. Dhal, and B. Mishra	Five Dimensional Bulk Viscous Cosmological Model with Wet Dark Fluid in General Relativity	Astrophysics & Space Science, 346, 233-236.	International	2013
60	B. Mishra and P.K. Sahoo	Study on Kink Space-time in Scale Invariant Theory with Wet Dark Fluid	Journal of Theoretical and Applied Physics, 7:36.	International	2013
61	P.K. Sahoo and B. Mishra	String cloud and domain walls with quark matter in Kink cosmological model	Journal of Theoretical and Applied Physics, 7:62.	International	2013
62	P.K. Sahoo and B. Mishra	Five Dimensional Bianchi type III domain walls and cosmic strings in bimetric theory	The African Review of Physics, 8(53), 377-380.	International	2013
63	Dipak Kumar Satpathi and B Jagadish Chandra	The Theory of Tax Evasion and Policy Formulation: A Game Theoretic Approach	Business and Enterprise Applications, 4(1), 31-34.	International	2013
64	Dipak Kumar Satpathi and Ayush Agarwal	A Game Theoretical Approach to designing Market Trading Strategies	American International Journal of Research in Humanities, Arts and Social Sciences 2(2), 108-110.	International	2013.
65	NarimhuluDunna, AddepalliRamu, Dipak Kumar Satpathi and G Sudha	Phase-Plane Analysis Application to Guderley's Problem	Journal of Emerging Trends in Engineering and Applied Sciences, 4(3), 406-411,.	International	2013
66	Dipak Kumar Satpathi and AddepalliRamu	A laminar flow model for mucous gel transport in a cough	Open Journal of Applied Sciences, 3(4), 312-317	International	2013.



		machine simulating trachea: effect of surfactant as a sol phase layer			
67	G Sudha, Addepalli Ramu, Dipak Kumar Satpathi and J Sucharitha	Converging Shock Waves in Stellar Atmosphere under the action of Monochromatic Radiation	International Journal of Computational and Applied Mathematics, 8(2), 173-182	International	2013.
68	Dipak Kumar Satpathi, B Jagadish Chandra and A Ramu	An Expository Analysis of Tax Evasion and Policy Formulation using Game Theory	International Journal of Engineering, Business and Enterprise Applications, 5(2), 121-124	International	2013.
69	Dipak Kumar Satpathi and A Ramu	Circular Model for Mucus Transport in the Airways due to Air Motion	International Journal of Emerging Technologies in Computational and Applied Sciences, 5(5), 513-517	International	2013
70	J.Jagan Mohan	Solutions of Perturbed Nonlinear Nabla Fractional Difference Equations	Novi Sad Journal of Mathematics, 42(2), 125 - 138.	International	2013
71	J.Jagan Mohan and G.V.S.R. Deekshitulu	Difference Inequalities of Fractional Order	Proyecciones Journal of Mathematics, 32 (3), 199 – 213.	International	2013
72	G. C. Samanta, S. K. Biswal, P. K. Sahoo	Five Dimensional Bulk Viscous String Cosmological Models in Saez and Ballester Theory of Gravitation	International Journal of Theoretical Physics (Springer) , 52(5), 1504-1514	International	2013
73	Madhu P. Mamidala, Anupama Polinedi, Praveen K. PTV, Rajesh N., Om Sai R. Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh	Prenatal, perinatal, and neonatal risk factors of Autism Spectrum Disorder: A comprehensive epidemiological assessment from India	Research in Developmental Disabilities, 34(9):3004-3013.	International	2013
74	Madhu P. Mamidala, Anupama Polinedi, Praveen K. PTV, Rajesh N., Om Sai R.	Maternal hormonal interventions as a risk factor for Autism Spectrum Disorder: an	Journal of Biosciences 38:1–6, Indian Academy of Sciences, SPRINGER.	National	2013



	Vallamkonda, Vrajesh Udani, Nidhi Singhal, Vidya Rajesh	epidemiological assessment from India			
75	T.K.V. Iyengar T.S.L Radhika	Stokes flow of an incompressible micro polar fluid past a porous spheroidal shell	Bulletin of the Polish academy of Sciences, 59(1), 63-74.	International	2013
76	S. K. Vishwakarma, S. Gupta, D. K. Majhi	Influence of rigid boundary on the Love wave propagation in elastic layer with void pores	Acta Mechanical Solidasinica, 26(5), 551-558.	International	2013
77	S. K. Vishwakarma, S. Gupta	Existence of torsional surface waves in an earth's crustal layer lying over a sandy mantle	Journal of Earth System Science, 122 (5), 1411-1421.	National	2013
78	S. Gupta, S. Kundu, S. K. vishwakarma	Propagation of torsional surface waves in an inhomogeneous layer over an initially stressed inhomogeneous half space	Journal of Vibration and control, 21(7), 1286-1298.	International	2013
79	B. Mishra, P. K. Sahoo	Plane Symmetric Perfect Fluid in Scale Invariant Theory	International Journal of Theoretical Physics 51(2), 399-404.	International	2012
80	P. Jain, P.K. Sahoo & B. Mishra	Axially symmetric cosmological model with wet dark fluid in Bimetric Theory of Gravitation	International Journal of Theoretical Physics, U.K., 51(8), 2546-2551.	International	2012
81	B. Mishra, P.K. Sahoo	Scale Invariant Theory on Axially Symmetric Space-time with Perfect Fluid	International Journal of Pure and Applied Mathematics, Bulgaria, 80(4), 535-542.	International	2012
82	N. Kishore Kumar, J. Schneider and Mike Espig	A note on approximation in Tensor Chain format	Computing and Visualization in Science, 5(6), 331-344.	International	2012.
83	K. L. Mahanta, S. K. Biswal, P.K. Sahoo, M. C. Adhikary	String cloud with quark matter in self-creation cosmology	International Journal of Theoretical Physics, 51, 1538-1544	International	2012



84	P. K. Sahoo, B.Mishra & A. Ramu	Bianchi types V and VI <sub>0</sub> cosmic strings coupled with Maxwell fields in Bimetric theory	International Journal of Theoretical Physics, U.K. 50(2), 349-355.	International	2011
85	B. Mishra, P.K.Sahoo and A. Ramu	Scale Invariant Theory of Gravitation in Einstein-Rosen Space-time	Journal of Modern Physics, USA, 1(3), 185-189.	International	2010
86	S. K. Tripathy, D. Behera, P. K. Sahoo	Inhomogeneous Cosmological models in Bimetric theory of Gravitation	Communications in Physics 20(2), 121-127.	International	2010
87	P. K. Sahoo	On Kantowski-Sachs Cosmic Strings Coupled with Maxwell fields in Bimetric Theory	International Journal of Theoretical Physics (Springer), 49, 25-30.	International	2010

### Conference Details

SL No	Authors	Title of the Publications	Details of the conference	National/ International	Year
1	A. Michael Alphonse	Domination on Circulant $Circ(n, \{1, 4\})$ Graphs	Proceedings of IMBIC 8 <sup>th</sup> International Conference on Mathematical Sciences for Advancement of Science and Technology	International	2014
2	Avinash S. Vaidya, T.S.L. Radhika, M.B. Srinivas	Estimation of Arterial Stiffness through pulse transit time measurement,	Proceedings of BIODEVICES 2014, Loire Valley, France. pp 238-242, March 3-6.	International	2014
3	MK Kaushik, PV Kalyan, DK Satpathi and Y Yoganandan,	Evaluation of spectrum usage based on peak excursion, using an off the shelf spectrum analyzer	IEEE Global Conference on Wireless Computing and Networking (GCWCN), 1-5.	International	2014
4	Manish Kumar	Image encryption using TSRMSC associated with DWT	AIP Conf. Proc., Vol. 1558, pp. 865--868, 2013 (American Institute of Physics).	International	2013
5	Akhilesh Prasad, Manoj Kumar Singh and Manish Kumar	The continuous fractional wave packet transform	AIP Conf. Proc., Vol. 1558, pp. 856--859, 2013 (American Institute of Physics).	International	2013
6	Narsimhulu Dunna, Addepalli Ramu and Dipak Kumar Satpathi:	Similarity solutions to shock waves in non-ideal	AIP Conf. Proc, 1558, 860-864.	International	2013



		magnetogasdynamics			
7	B. Mishra	<a href="#">Inhomogeneous Plane Symmetric Cosmological Model in Scale Invariant Theory</a>	API Conf. Proceeding, <b>1368</b> , 117-120.	International	2011

**23. Details of patents and income generated : NIL**

**24. Areas of consultancy and income generated: NIL**

**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**

- (i) Dr. N. Kishore Kumar, collaborated with Max-Planck Institute for Mathematics in the Science, Leipzig, Germany.
- (ii) Dr. Sumit Kumar Vishwakarma, collaborated with Harbin engineering university, Harbin, China.
- (iii) Dr. Manish Kumar, collaborated with University of Central Florida, Orlando, USA.

**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

- a) National Committees: No
- b) International Committees: No
- c) Editorial Boards
  - Dr. Debdas Gosh - Editorial board member of *Journal of Uncertainty in Mathematics Science* of May 2013:
  - Dr. TSL Radhika - Editorial Board member for the following journals:
    - International journal of advances in engineering research.
    - International journal of research in science & technology.
    - International journal of innovations in scientific engineering.
  - Dr. Sumit Kumar Vishwakarma - Editorial member of International Journal of Rock Engineering and Mechanics.
- d) any other (please specify): No

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level. Apart





from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

Following research initiation grants have been sanctioned to faculty members of the Department

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	An application of optimal homotopy asymptotic method in the study of the flow of non-Newtonian fluids through pipes	TSL Radhika	BITS-Pilani	2.00	2013-2015
2.	A certain study of wavelet analysis and its applications	Manish Kumar	BITS-Pilani	1.36	2013-2015
3.	Applications of Discrete Fractional Calculus in Science and Engineering	Jagan Mohan Jonnalagada	BITS-Pilani	1.5	2014-2016
4.	Study of Seismic Wave Propagation in heterogeneous medium	Sumit Vishwakarma Kumar	BITS-Pilani	1.5	2014-2016 years
5.	Nonconforming Spectral element method for elliptic interface problems	Naraparaju Kishore Kumar	BITS-Pilani	1.6	2014-2016
6.	Fuzzy Geometrical Analysis of Fuzzy Multi-objective Optimization	Debdas Ghosh	BITS-Pilani	2.0	2014-2016
7.	Barratt- Milnor Conjecture on singular homology	VeerendraVikamAwasthi	BITS-Pilani	1.8	2014-2016

## 28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.

- percentage of students doing projects in collaboration with other universities /industry / institute

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university



**29. Awards / recognitions received at the national and international level by**

Faculty: No

Doctoral / post doctoralfellows : No

Students: We do not maintain the record.

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

- A National workshop on Numerical Linear Algebra and its Applications during January 30-February 1, 2015. This workshop was sponsored by NBHM, New Delhi, SERB-DST, New Delhi.

*Speakers:*

(i) Prof. R. B. Bapat (ISI Delhi)

(ii) Prof. R. Bhatia (ISI Delhi)

(iii) Prof. Rafikul Alam (IIT Guwahati)

(iv) Prof. Shreemayee Bora (IIT Guwahati)

**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.

**32. a) Student profile programme-wise:**

Name of the programme (refer to question no. 4)	Application received	Selected		Pass percentage		
		Male	Female	Male	Female	
M.Sc Hons (Mathematics)	2010-2011	14662	38	12	100 %	100 %
	2011-2012	12880	40	9	100 %	100 %
	2012-2013	15714	36	13	100 %	100 %
	2013-2014	15120	43	13	100 %	100 %
	2014-2015	18717	54	7	100 %	100 %
Ph.D.	2010-2011	425	0	0		
	2011-2012	461	1	0		
	2012-2013	1173	0	0		
	2013-2014	964	0	0		
	2014-2015	773	0	0		

**33. Diversity of students**

Name of the Programme (refer to question no. 4)	% of Students from the Same university	% of students from other universities within the State	% of students From universities outside the State	% of students from other countries
Ph.D.	0	25	75	0



**34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

We do not maintain the data; however there is information that one student has cleared GRE.

**35. Student progression**

Student progression	Percentage against enrolled*
UG to PG	Approx 25%
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed	
• Campus selection	Approx. 75%
• Other than campus recruitment	We do not maintain data
Entrepreneurs	We do not maintain data

\*This is the approximate data given. The department does not maintain the records for this.

**36. Diversity of staff**

Percentage of faculty who are graduates	
of the same university	0
from other universities within the State	20%
from universities from other States from universities outside the country	80%

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : 2**

**38. Present details of departmental infrastructural facilities with regard to**

- Library : No. of books: 1367 (Central Library)
- Internet facilities for staff and students (Facility is available to all)
- Students' laboratories: To be developed under DST-FIST grant.
- Research laboratories: To be developed under DST-FIST grant.

**39. List of doctoral students**

- from the host institution/university : None
- from other institutions/universities :
  - Mr. NarasimmaluDunna
  - Mr. SankarsanTarai
  - Miss. ParbatiSahoo
  - Mr. Pratik Premadarshi Ray



**40. Number of post graduate students getting financial assistance from the university:**  
Not applicable

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

No new programme was started during the assessment period.

**42. Does the department obtain feedback from**

**i. Instructor faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes, it is discussed in the departmental committee on academics for the improvement of the course.

**ii. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes, the feedback is shared with the concerned faculty member for the scope of improvement. Feedbacks on the courses are also shared with CCDCA.

**iii. Alumni and employers on the programmes offered and how does the department utilize the feedback?**

We do take the feedback from alumni during Convocation, Alumni's meet, Embryos' talk, Industry Day and BITSAA. We discuss the feedback in the department and take measures to address the feedback.

**43. List the distinguished alumni of the department (maximum 10)**

Our campus is new, established in 2008 and alumni are still working to excel in their respective fields.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

(i) Professor TKV Iyengar, Former professor, NIT Warangal delivered a talk entitled 'Some Simple Ideas in Mathematics with Exciting Implications' on February 5, 2013.

(ii) Mr. Atul Mishra, Senior Scientist, BARC delivered a talk entitled 'Brain Teaser in Discrete Mathematics' on February 13, 2013

(iii) Professor S. N. Nanda, IIT Kharagpur delivered a talk entitled 'Fuzzy Logic' on March 01, 2013.

(iv) Professor S. Kumaresan, University of Hyderabad delivered a talk entitled 'Geometry and the Implicit function Theorem' on March 09, 2015.

(v) Professor V. Kannan, University of Hyderabad delivered a talk entitled 'The Beauty of Mathematics' on August 24, 2015.

**45. List the teaching methods adopted by the faculty for different programmes.**

- Application based teaching,
- Technology based teaching,



- Lecturing,
- Discussions in common hours,
- Questionnaire strategy for home assignment
- Active learning,
- Problem based learning

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- There is a Class Committee which consists of students and faculties from the department which meets periodically to understand the difficulties faced by students in academics and takes measures to remove the difficulties
- The Cross Campus Departmental Committee on Academics (CCDCA) which consists of the members from the mathematics department across all the campuses meet and take decisions regarding all the academic related matters such as floating of new courses, content development, curriculum design and text book changes.
- External expert committee consisting of faculty from IITs and IISc interacts with our department members regarding the curriculum and gives feedback.
- Course handouts for all the courses are prepared with learning outcomes, which gives a clear outline on the scope and objective of the course.

**47. Highlight the participation of students and faculty in extension activities. Participation of faculties in extension activities:**

BITS-Pilani has a deep rooted culture of extension activities and our department is also an integral part of the institute's extension activities. There are many community development activities and initiatives in which our students are involved, especially through such organizations as SCIO, NIRMAN, INACTUS, NSS, etc. These organizations are involved in several extension and outreach activities involving underprivileged children, women, senior citizens and projects dealing with education, relief work, adult literacy, health services, etc.

**48. Give details of "beyond syllabus scholarly activities" of the department.**

The departmental students association regularly conduct academic and scientific events to incorporate ideas, innovations and interests among students. Every year number of programmes and events are being organized to enrich the knowledge and interest of mathematics such as guest lectures, paper presentations along with various competitions like solving mathematical puzzles, writing programmes and codes during inter-intra Institutional events.

October 10, 2014

- Event 1: BOXEDIN
- Objective: To solve Sudoku type puzzles, box puzzles



- Participants : 150 teams each consists of 2 members
- Winners: T.S.Kiran and A.Sai Kiran (BITS)

October 10, 2014

- Event 2: Paper Presentation
- Objective: To present papers of ones interests
- Participants: 4 teams each consists of 2 members
- Winners: Eswar Raja Babu (CBIT)

October 11, 2014

- Event 3: MATHEFIA
- Objective: Logical and Reasoning questions Competition
- Participants: 200 teams each consists of 2 members.
- Winners: BarkhaTaori and Chavi Gupta (BITS)

October 12, 2014

- Event 4: N-CRYPTON
- Objective: Coding/Cryptography
- Participants: 150 teams each consists of 2-3 members
- Winners: DivijaGogineni and HimasreeMustyala (BITS)

Events organized during PEARL-2012:

- nCRYPTop42
- Boxed In – Sudoku-Kakuro-Hashi
- Towers of Hanoi
- Paper Presentation

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL**

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

The department offers various Mathematics courses to all the engineering and science streams. Our objective is to make our students more competent, motivated engineers and scientists with a strong mathematical background. Faculty members of the department participate in several academic and non-academic activities. Delivers invited lectures, presents research papers in different national and international conferences. Faculty member are also engaged in providing training to other institutes. Every year number of events and programs are being organized to enrich the knowledge and interests for Mathematics such as Guest lectures, paper presentations along with the various competitions. Faculty members of the department are not only excellent in teaching but also active in research. They have produced good number of research publications in national, international peer-reviewed journals and conferences. We are also offering some research oriented projects to our students in the form of SOP, DOP, and Thesis.



**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strength:</b></p> <ul style="list-style-type: none"> <li>• Highly talented &amp; motivated faculty</li> <li>• very good teaching</li> <li>• active in research</li> <li>• Excellent quality of first degree students.</li> <li>• Good infrastructure with learning environment</li> </ul>	<p><b>Weakness:</b></p> <ul style="list-style-type: none"> <li>• Lack of faculty in all areas</li> <li>• Difficulty in attracting and retaining good faculty</li> <li>• access to reputed journal/literature</li> <li>• industrial consultancy</li> <li>• unable to get PhD students.</li> </ul>
<p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>• Inter/multidisciplinary research</li> <li>• new degree programme</li> <li>• hiring highly qualified experienced exposed (post-doc) and talented faculty</li> <li>• to start with industry consultancy to increase publication in peer reviewed journals.</li> <li>• Inculcating self-learning activities through project based courses</li> </ul>	<p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Number of PhD applicants</li> <li>• handling multi-section courses</li> <li>• publication in open access journals</li> </ul>

**52. Future plans of the department.**

- To increase the number of faculty strength
- To increase the number of PhD students
- To start with new post-graduate programmes.
- To improve the amount of sponsored R&D funding.
- Focus on interdisciplinary research.
- To have dedicated laboratory for department.

**53. Any other information regarding your department which you would like to include.**

Under DST-FIST programme, we are going to develop a new laboratory which will be equipped with relevant software along with other necessary hardware



## HYDERABAD Campus: Evaluative Report of the Department MECHANICAL ENGINEERING

1. **Name of the Department:** Mechanical Engineering
2. **Year of establishment of the Department:** 2008
3. **Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**

On campus programmes	<ul style="list-style-type: none"> <li>• B.E. (Hons.) Mechanical Engineering</li> <li>• B.E. (Hons.) Manufacturing Engineering</li> <li>• M.E. Mechanical Engineering with specialisation in Thermal Engineering</li> <li>• M.E. Design Engineering</li> <li>• M.E. Mechanical Engineering</li> <li>• Ph.D.</li> </ul>
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**5. Interdisciplinary programmes and departments involved**

Minor in Material science and Engg	Mechanical Engineering, Chemical Engineering Physics and Chemistry Departments
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**6. Courses in collaboration with other universities, industries, foreign institutions, etc.**

Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.

**7. Details of programmes discontinued, if any, with reasons NIL**

**8. Examination System:** Semester System with Choice based credit.

**9. Participation of the department in the courses offered by other departments**

Courses offered	Departments
BITS F110 Engineering Graphics	Common to all courses
BITS F111 Thermodynamics	Common to all courses





**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note**	1	1
Associate Professors		6	6
Asst. Professors		12	9
Others		6	6

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Prof. S P Regalla	PhD	Professor	Manufacturing	20	2 Completed 7 On going
Prof. Daseswara Rao Yendluri	PhD	Associate Professor (HOD)	Design Engineering	30	1 Completed 4 on going
Prof. Morapakala Srinivas	PhD	Associate Professor	Thermal	19	0 completed 2 on going
Prof. Amit Kumar Gupta	PhD	Associate Professor	Production/Manufacturing	10	1 Completed 3 Ongoing
Prof. Jeevan Jaidi	PhD	Associate Professor	Thermal	12	2 Ongoing
Prof. N Suresh Kumar Reddy	PhD	Associate Professor	Manufacturing	15	1 Completed 2 On going
Prof. S S Deshmukh	PhD	Associate Professor	Thermal	20	1 Completed 2 Ongoing
Dr. N Jalaiah	PhD	Assistant Professor	Thermal	14	1 Ongoing
Dr. Phaneendra Kiran C	PhD	Assistant Professor	Manufacturing	10	1 Ongoing
Dr Amrita Priyadarshin	PhD	Assistant Professor	Manufacturing	3	1 Ongoing



Dr. Sabareesh Geetha Rajasekharan	PhD	Assistant Professor	Design	7	1 Ongoing
Dr. R Parameshwaran	PhD	Assistant Professor	Thermal	6	Nil
Dr. Satish Kumar Dubey	PhD	Assistant Professor	Thermal	13	Nil
Dr. Arshad Javed	PhD	Assistant Professor	Design	9	Nil
Dr. Supradeepan K	PhD	Assistant Professor	Thermal	9	Nil
Dr. Sujith R	PhD	Assistant Professor	Materials Science	1	Nil
Mrs. Barla Madhavi	M.Tech	Lecturer	Manufacturing	6	-
Dr. SM Hussaini	PhD	Lecturer	Manufacturing	10	-
Mr. Kurra Suresh	M. Tech	Lecturer	Manufacturing	9	-
Mr Nitin Ramesh Kotkunde	M. Tech	Lecturer	Manufacturing	8	-
Mr Khalid Anwar	M. Tech	Lecturer	Thermal	5	-
Mr. Ramsankar V	M. Tech	Lecturer	Thermal	8	-

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors**

Mr. B R Murthy

**13. Percentage of classes taken by temporary faculty – programme-wise information:**

Nil

**14. Programme-wise Student Teacher Ratio**

Programme	Student Teacher ratio
B.E.(Hons.): Mechanical	257/16 = 16
B.E.(Hons.): Manufacturing (AB)	140/10 = 14
M.E. Mechanical (Thermal Engg.)	14/5=2.8
M.E. Design Engineering	15/6=2.5

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual:**

	Filled (includes offer letters given)	Actual number
Technical Staffs	13	13
Administrative Staff	1	1
Total	14	14



## 16. Research thrust areas as recognized by major funding agencies

Materials and Manufacturing, Nanomaterials, MEMS and Microfluidics, Medical devices design and manufacturing, Additive manufacturing, sheet metal forming, Welding processes, furnace design, Computational fluid dynamics, advanced machining processes, micro grid modelling and optimization, solar and wind energy technologies, Thermal energy storage technologies, energy management, heat transfer, fluid structure interaction, conditioning monitoring, Tribology and surface engineering, nano-coatings, CAD/CAM, Robotics, Kinematics and mechanisms.

## 17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

### Completed projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Dynamic Strain Ageing Behaviour in Austenitic Stainless Steel (304 & 316 Grades)	Prof. A K Gupta	DAE	11.64	2009-2012
2.	Understanding Material Properties and Possible Forming Behavior (Using FEM) of Titanium Grade – 5 Material At Elevated Temperatures	Prof. A K Gupta	DST	10.15	2012-2015
3.	Process Modeling and Validation of Flotation Cell: Development of 3-D Multiphase Turbulent Model (Phase-1)	Prof. Jeevan Jaidi	Tenova Delkor, India	7.83	June 2014- Sept 2014
4.	CFD Based Process Optimization Of BQR15 Flotation Cell And Scale-Up For Larger Cells (Phase-2)	Prof. Jeevan Jaidi	Tenova Delkor, India	18.20	Dec 2014- July 2015
5.	Rapid Incremental Forming of Extra Deep Drawing (EDD) Steel Sheet Metal Parts With Asymmetric Geometry	Prof. Srinivasa Prakash Regalla	UGC	9.73	2011-2014
6.	Development of Electrostatic Micro-Solid Lubricant Coated Tools for Green Machining	Prof. N S K Reddy	ABG Research seed grant	11.8	2011-2013



### Ongoing projects:

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Formability study on constrained groove pressed extra deep drawn (EDD) steel sheets	Prof. A K Gupta	UGC-RA	34.2	2014-2016
2.	Develop and Test Certain 3D Printing Technologies to Produce Innovative Limbs at Affordable Costs for the Disabled in India.	Prof. Srinivasa Prakash Regalla	BIRAC, DBT	47.65	2015-2016
3.	Development of Electrostatic Nano-Solid Lubricant Coated Tools for Sustainable Machining	Prof. N S K Reddy	CSIR	18.52	2012-2015
4.	Novel Minimal-Solid Lubricant Mixture Application Method For Performance Improvement in Turning	Prof. N S K Reddy	SERC, DST	34.86	2013-2016
5.	Design And Development Of An Interactive Decision Support System For Regional Energy Management	Prof. S .S. Deshmukh	UGC	6	2014-2016

### 18. Inter-institutional collaborative projects and associated grants received

#### a) National collaboration

Understanding forming behaviour of Ti6AL-4V material between 400-850 C in deep drawing set up	Prof. A K Gupta (Co PI)	DRDO	9.85	2015-2017
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#### b) International collaboration

Characteristics and modeling of Tornado-Induced Wind Loading on Low-Rise Buildings	Dr. Sabareesh G R	NSFC, China	Financial support for laboratory experiments, international travel, and overseas stay in china to conduct experiments (\$10K)
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### 19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received. Nil

### 20. Research facility / centre with : Nil

- state recognition
- national recognition
- international recognition



**21. Special research laboratories sponsored by / created by industry or corporate bodies:**  
MEMS clean room contributed by Hemair Systems Pvt Ltd.

**22. Publications:**

SI No.	Details	Specify number here
1.	Number of papers published in peer reviewed journals (national / international)	71
2.	Monographs	0
3.	Chapters in Books	8
4.	Edited Books	6
5.	Books with ISBN with details of publishers	6
6.	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	2118
7.	Citation Index – range / average	1-629
8.	SNIP	0.629-4.801
9.	SJR	0.274-4.533
10.	Impact Factor – range / average	0.838-5.901
11.	h-index	1-16

**Details of books published**

Authors	Book details
Srinivasa Prakash Regalla	“Computer Aided Analysis and Design”, 1st edition, IK International Publishers, New Delhi, 2010. (ISBN: 978-9380026459)
Srinivasa Prakash Regalla and Kuldip Singh Sangwan	“Product Design and Manufacturing: A product lifecycle approach”, 1st Edition, New Age International Publishers, New Delhi, 2014. (ISBN: 978-8122436082)
Y V Daseswara Rao	“Engineering Mechanics”, 1st Edition, Academic Publishing Company, Hyderabad, 2013.
S. S. Deshmukh	Development of Integrated Renewable Energy System’ published by Lambert Academic Publishing, Germany. (ISBN: 978-3-8465-8656-3).
Adesh Jinturkar and Sandip Deshmukh	‘Fuzzy Logic Based Integrated Energy Resource Planning’ published by Lambert Academic Publishing, Germany. (ISBN: 978-3659235634).
Kalaiselvam S & Parameshwaran R	‘Thermal Energy Storage Technologies for Sustainability: Systems Design, Assessment and Applications’, Imprint: Academic Press, Elsevier Publications, Pages – 444. ISBN: 9780124172913 (Print), ISBN: 9780124173057 (eBook).

**Details of the publications as per the number give above (Give details in the last five years**

Sl. No	Authors	Title of publication	Details of Journal	National/International	Year
1	Singh A. K. and Regalla Srinivasa Prakash	DOE Based Three Dimensional Finite Element Analysis for Predicting Density of a Laser Sintered Part	Rapid Prototyping Journal	International	2010
2	Singh A. K. and Regalla Srinivasa Prakash	Response Surface Design for the Optimization of Selective	Rapid Prototyping Journal	International	2010



		Laser sintering Process			
3	SK Singh, AK Gupta, K Mahesh	A study on the extent of ironing of EDD steel at elevated temperature	CIRP Journal of manufacturing Science and Technology	International	2010
4	SK Singh, AK Gupta	Application of support vector regression in predicting thickness strains in hydro-mechanical deep drawing and comparison with ANN and FEM	CIRP Journal of manufacturing Science and Technology	International	2010
5	SK Singh, K Mahesh, AK Gupta	Prediction of mechanical properties of extra deep drawn steel in blue brittle region using Artificial Neural Network	Materials & Design	International	2010
6	AK Gupta	Predictive modelling of turning operations using response surface methodology, artificial neural networks and support vector regression	International journal of production research	International	2010
7	N Suresh Kumar Reddy, Mohammed Nouari	The influence of solid lubricant for improving tribological properties in turning process	Lubrication Science	International	2011
8	SR Uppada, AK Gupta, JR Dutta	Statistical optimization of culture parameters for lipase production from Lactococcus lactis and its application in detergent industry	Int J ChemTech Res	International	2011
9	AK Gupta, AI Sivakumar, P Lendermann	Cycle time simulation study for cluster tool operation in IC fabrication	International Journal of Manufacturing Technology and Management	International	2011
10	I. Rajasri, A. V. S. S. K. S. Gupta, YVD Rao	Influence of Structural Aspects on the Generation Process in Planetary Gear Trains	International Journal of Scientific Research-Engineering	International	2011
11	I. Rajasri, A. V. S. S. K. S. Gupta, YVD Rao	Structural Aspect of Symmetry And Its Effect On Generation Of Planetary Gear Trains	International Journal On Applied Mechanics And Materials	International	2011
12	Kurra, S., & Regalla, S. P	Simulation of forces and strains in single point incremental forming process	Int. Journal of Machining and forming technologies	International	2012
13	G. Pavan Kumar and Srinivasa Prakash Regalla	Optimization of Support Material and Build Time in Fused Deposition Modeling (FDM)	Applied Mechanics and Materials	International	2012



14	Morapakala Srinivas.	Fuzzy logic rule based multi-criteria evaluation of viability of domestic solar hot water systems.	International Journal of Applied Engineering	International	2012
15	AK Gupta, A VK, SK Singh	Constitutive models to predict flow stress in Austenitic Stainless Steel 316 at elevated temperatures	Materials & Design	International	2012
16	AK Gupta, SK Singh, S Reddy, G Hariharan	Prediction of flow stress in dynamic strain aging regime of austenitic stainless steel 316 using artificial neural network	Materials & Design	International	2012
17	Arshad Javed & Rout, B.K	Investigation on parametric sensitivity of topologically optimized structures	Journal of Mechanical Engineering Science	International	2012
18	Arshad Javed, Sengar, A.K., & Rout, B.K	A FEM and image processing based method for simulation of manufacturing imperfections.	Asian Review of Mechanical Engineering	International	2012
19	Asmit Joshi and YVD Rao	Application of Boolean Algebra to the motion of Epicyclic Gear Trains	International journal of Advanced Materials, Manufacturing and Characterization	International	2012
20	Srinivasa Prakash Regalla, R. Anirudh Reddy, B. Aditya, and Nikhil Tatke	Investigation of Additive Manufactured Sustainable Composite Wind Turbine Blades under Static Loading	Journal of Sustainable Manufacturing and Renewable Energy	International	2013
21	Morapakala Srinivas.	Viability evaluation of domestic solar hot water systems using two multi criteria evaluation techniques: case study of an urban area in India.	Journal of Technological Innovations in Renewable Energy	International	2013
22	AK Gupta, HN Krishnamurthy, Y Singh, KM Prasad, SK Singh	Development of constitutive models for dynamic strain aging regime in Austenitic stainless steel 304	Materials & Design	International	2013
23	N. Tatke, Nitin Kotkunde	Numerical Evaluation of Stress Intensity Factor for Inclined-Edge Crack Geometry using Singularity Elements.	Advanced Materials Manufacturing & Characterization	International	2013
24	Nitin Kotkunde, N. Krishnamurthy, AK. Gupta, SK. Singh	Development of Modified Arrhenius Model for Ti-6Al-4V Alloy to Predict the Flow Stress	Advanced Materials Manufacturing & Characterization	International	2013
25	Dubey, S. K., & Srinivasan, P.	Three Dimensional Transient Explicit Finite Difference Heat Transfer Modeling of Billet Transport	International Journal of Thermal & Environmental Engineering	International	2013



26	SM Hussaini, SK. Singh, and AK Gupta	Experimental investigation of Dynamic strain aging regime in Austenitic Stainless Steel 316	International Journal of Engineering Research & Technology	International	2013
27	Arshad Javed & Rout, B.K	Tolerance range section of topologically optimized structure using combined array design of experiments approach	Journal of Mechanical Engineering Science	International	2013
28	Sajun Prasad, YVD Rao	Biped Robots	International journal of advance material manufacturing and characterization	International	2013
29	I. Rajasri, A. V. S. S. K. S. Gupta, Y VD Rao	A Comparative Study of Few Tests for Isomorphism in Planetary Gear Trains	International Journal of Engineering and Technology Innovation	International	2013
30	I. Rajasri, A. V. S. S. K. S. Gupta, YVD Rao	Comparison of Train Values of PGTs for different structural aspects like symmetry, compactness and driver speed	International Journal of Current Research	International	2013
31	Kurra, S., & Regalla, S. P.	Experimental and numerical studies on formability of extra-deep drawing steel in incremental sheet metal forming	Journal of Materials Research and Technology	International	2014
32	Kurra, S., Bagade, S. D., & Regalla, S. P	Deformation Behavior of Extra Deep Drawing Steel in Single Point Incremental Forming	Materials and Manufacturing Processes	International	2014
33	Suresh, K., & Regalla, S. P	Effect of Time Scaling and Mass Scaling in Numerical Simulation of Incremental Forming	Applied Mechanics and Materials	International	2014
34	G. Pavan Kumar and Srinivasa Prakash Regalla	Part Strength Evolution with Bonding between Filaments in Fused Deposition Modeling	Virtual and Physical Prototyping,	International	2014
35	Satya Suresh V.V.N, Srinivasa Prakash Regalla, Uday Kumar R	Experimental Investigations, Modeling and Simulation of Tailor Welded Blanks : A Review	International Journal of Current Engineering and Technology	International	2014
36	V Vijayaraghavan, A Garg, CH Wong, K Tai, Srinivasa Prakash Regalla, MC Tsai	Density characteristics of laser-sintered three-dimensional printing parts investigated by using an integrated finite element analysis-based evolutionary algorithm approach	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture (IMechE)	International	2014
37	SK Josyula, NSK Reddy	A Breif Review on Manufacturing of Al-TiC MMC	Advanced Materials Research	International	2014





38	Uma Maheshwera Reddy Paturi, Suresh Kumar Reddy Narala	Experimental investigation to study the effect of electrostatic micro-solid lubricant-coated carbide tools on machinability parameters in turning	I Mech E: Journal of Engineering Manufacture (Professional Engineering)	International	2014
39	Uma Maheshwera Reddy Paturi, Suresh Kumar Reddy Narala	Constitutive flow stress formulation, model validation and FE cutting simulation for AA7075-T6 aluminum alloy	Materials Science and Engineering (Elsevier)	International	2014
40	Hossam A Kishawy, Narala SK Reddy, Amirmohammad Ghandehariun, Hussein M Abdelmoneam	On a novel solid lubricant-coated cutting tool: Experimental investigation and finite element simulations	I Mech E: Journal of Engineering Manufacture (Professional Engineering)	International	2014
41	UMR Paturi, SKR Narala, RS Pundir	Constitutive flow stress formulation, model validation and FE cutting simulation for AA7075-T6 aluminum alloy	Materials Science and Engineering: A	International	2014
42	AK Gupta, HN Krishnamurthy, P Puranik, SK Singh, A Balu	An exponential strain dependent Rusinek-Klepaczko model for flow stress prediction in austenitic stainless steel 304 at elevated temperatures	Journal of Materials Research and Technology	International	2014
43	J Lade, BN Banoth, AK Gupta, SK Singh	Metallurgical Studies of Austenitic Stainless Steel 304 under Warm Deep Drawing	Journal of Iron and Steel Research, International	International	2014
44	N Kotkunde, AD Deole, AK Gupta, SK Singh	Experimental and numerical investigation of anisotropic yield criteria for warm deep drawing of Ti-6Al-4V alloy 7	Materials & Design	International	2014
45	A Garg, K Tai, AK Gupta	A modified multi-gene genetic programming approach for modelling true stress of dynamic strain aging regime of austenitic stainless steel 304	Meccanica	International	2014
46	SK Singh, V Kumar, PP Reddy, AK Gupta	Finite element simulation of ironing process under warm conditions	Journal of Materials Research and Technology	International	2014
47	SK Singh, AK Gupta	Comparison of Ironing in Warm and Hydromechanical Deep Drawing of Low Carbon Steel	Materials Science Forum 773, 203-210	International	2014
48	Nitin Kotkunde, Aditya D. Deole, Amit Kumar Gupta, Swadesh Kumar Singh	Failure and formability studies in warm deep drawing of Ti-6Al-4V alloy.	Journal of Materials & Design	International	2014



49	Nitin Kotkunde, Hansoge Nitin Krishnamurthy, Pavan Puranik, Amit Kumar Gupta, Swadesh Kumar Singh	Microstructure study and constitutive modeling of Ti-6Al-4V alloy at elevated temperatures	Journal of Materials and Design	International	2014
50	Nitin Kotkunde, Aditya D. Deole, Amit Kumar Gupta, Swadesh Kumar Singh	Comparative study of constitutive modeling for Ti-6Al-4V alloy at low strain rates and elevated temperatures	Journal of Materials & Design	International	2014
51	Nitin Kotkunde, A. Balu, AK. Gupta, SK. Singh	Flow stress Prediction of Ti-6Al-4V alloy at elevated temperature using artificial neural network.	Applied Mechanics and Materials	International	2014
52	Nitin Kotkunde, AD. Deole, AK. Gupta, SK. Singh	Analysis of Thickness Strain Prediction in Warm Deep Drawing of Ti-6Al-4V Alloy	Advanced Materials Research	International	2014
53	Dubey, S. K., & Srinivasan, P.	Development of Three Dimensional Transient Numerical Heat Conduction Model with Growth of Oxide Scale for Steel Billet Reheat Simulation	International Journal of Thermal Sciences	International	2014
54	Dubey, S. K., & Srinivasan, P.	Steel Billet Reheat Simulation with Growth of Oxide Layer and Investigation on Zone Temperature Sensitivity	Journal of Mechanical Science and Technology	International	2014
55	SM Hussaini, SK. Singh, and AK Gupta	Formability of Austenitic Stainless Steel 316 sheet in Dynamic Strain Aging Regime	Acta Metallurgica Slovaca	International	2014
56	SM Hussaini, SK. Singh, and AK Gupta	Formability and fracture studies of austenitic stainless steel 316 at different temperatures	Journal of King Saud University – Engineering Sciences	International	2014
57	SM Hussaini, SK. Singh, and AK Gupta	Experimental and Numerical Investigation of Formability for Austenitic Stainless Steel 316 at Elevated Temperature	Journal of Materials Research and Technology	International	2014
58	Arshad Javed & Rout, B.K	Tolerance range selection of topologically optimized structures with the effects of uncertainties of manufacturing process	Journal of Mechanical Engineering Science	International	2014
59	Kurra, S., & Regalla, S. P	Multi-objective optimization of single point incremental sheet forming using Taguchi based grey relational analysis	Int. J. Materials Engineering Innovation	International	2015
60	Uma Maheshwera Reddy Paturi, Suresh	On a novel solid lubricant technique: A study on the	I Mech E: Journal of Engineering Tribology	International	2015



	Kumar Reddy Narala	tribological characteristics under dry slide condition			
61	Uma Maheshwera Reddy Paturi, Suresh Kumar Reddy Narala	Constitutive flow stress formulation for aeronautic aluminum alloy AA7075-T6 at elevated temperature and model validation using finite element simulation	I Mech E: Journal of Materials: Design and Applications	International	2015
62	A Marques, Suresh Kumar Reddy Narala, AR Machado, Rakesh Kumar Gunda, Saravan Kumar Josyula, RB Da Silva and MB Da Silva	Performance assessment of MSQ: Minimum quantity solid lubricant during turning of Inconel 718	I Mech E: Journal of Engineering Manufacture (Professional Engineering)	International	2015
63	Nikhil T, Shreyas M, Jeevan J, Karthik Teja M	Predicted and Measured Thermal Profiles During Friction Stir Welding Process of Aluminium-alloy	International Journal of Applied Engineering Research	International	2015
64	RK Desu, HN Krishnamurthy, A Balu, AK Gupta, SK Singh	Mechanical properties of Austenitic Stainless Steel 304L and 316L at elevated temperatures	Journal of Materials Research and Technology	International	2015
65	AK Gupta, SC Guntuku, RK Desu, A Balu	Optimisation of turning parameters by integrating genetic algorithm with support vector regression and artificial neural networks	The International Journal of Advanced Manufacturing Technology	International	2015
66	Nitin Kotkunde, S. Srinivasan, G. Krishna, AK. Gupta, SK. Singh,	Influence of Material Models on Theoretical Forming Limit Diagram Prediction for Ti-6Al-4V Alloy at Warm Condition	International Journal of Transactions of Nonferrous Metals Society of China	International	2015
67	Nitin Kotkunde, M. Prasad, A. Arote, AK. Gupta	Experimental and numerical study of formability for EDD steel.	Materials Today: Proceedings	International	2015
68	Kurra Suresh, Nasih Hifzur Rahman, Srinivasa Prakash Regalla, Amit Kumar Gupta,	Modeling and optimization of surface roughness in single point incremental forming process	Journal of Materials Research and Technology	International	2015
69	Kurra Suresh, Srinivasa Prakash Regalla	Parametric Study and Multi-objective Optimization in Single Point Incremental Forming of EDD Steel Sheets	IMechE, Part B: Journal of Engineering Manufacture	International	2015
70	Devasenan Madhesh, <b>Rajagopalan Parameshwaran</b> & Siva Kalaiselvam	Experimental Studies on Convective Heat Transfer and Pressure Drop Characteristics of Metal and Metal Oxide Nanofluids Under Turbulent Flow Regime	Heat Transfer Engineering	International	2015



71	<b>SM Hussaini, SK. Singh, and AK Gupta</b>	Development of Experimental and Theoretical Forming Limit Diagrams for Warm Forming of Austenitic Stainless Steel 316	Journal of Manufacturing Processes	International	2015
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### Conference papers

Sl. No.	Authors	Title	Details of the Conference	National/ International	Year
1.	Swagatika Mohanty, Srinivasa Prakash Regalla, Daseswara Rao Y. V.	, "Multi-stage and Robot Assisted Incremental Sheet Metal Forming: A Review of the State of Art and Comparison of Available Technologies", 2nd to 4th July, 2015. BITS Goa, India.	Advances in Robotics (AIR-2015)- 2nd International Conference of Robotics Society of India.	International	2015
2.	Srinivasa Prakash Regalla, Pavan Kumar Gurrala, Sridhar Idapalapati, Kannan Ramaswamy	, "Strength and Accuracy of FDM Parts and Their Implication on Some New Application Areas of Additive Manufacturing",	1 <sup>st</sup> International Conference on Progress in Additive Manufacturing, May 26-28, 2014, Nanyang Technological University (NTU), Singapore.	International	2014
3.	Kurra Suresh, Srinivasa Prakash Regalla	, "Study on Influence of Process parameters in Incremental Forming using Finite Element Simulations and Taguchi Orthogonal Array",	17 <sup>th</sup> International Conference on Advances in Materials & Processing Technology (AMPT 2014), Atlantis The Palm, Nov. 16-20, 2014, Dubai, United Arab Emirates.	International	2014
4.	Pavan Kumar Gurrala, Srinivasa Prakash Regalla	, "Friction and Wear Behavior of ABS Polymer Parts Made by Fused Deposition Modeling (FDM)",	International Conference on Advances in Tribology (ICAT-2014), Feb 21-24, 2014, NIT, Calicut, Kerala. Bagged Best Paper Gold Medal.	International	2014
5.	Srinivasa Rao Vutla, Prasant Kumar Patnaik, Kannan Ramaswamy, Srinivasa Prakash Regalla, Srinivas M. B.	, "Effect of Particles and Contaminants on the Static Response of a Rectangular MEMS Diaphragm Due to Adverse Clean Room Environment – Simulation Studies",	2013 IEEE Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia), doi: 10.1109/PrimeAsia.2013.6731188, 2013 , Page(s): 111 – 113.	Asia Pacific	2013



6.	Kurra Suresh, Srinivasa Prakash Regalla, Anudeep A.V.V.N., Suri S.S.M.	, “Effect of Toolpath on Thinning In Negative Incremental Forming Process”	,4 <sup>th</sup> International and 24 <sup>th</sup> AIMTDR Conference, Jadavpur University, Kolkata, Dec 14-16, 2012.	International	2012
7.	Pavan Kumar Gurrala, Srinivasa Prakash Regalla,	“Prediction of Neck Growth due to Inter and Intra-Layer Bondingfor High Strength Parts in Additive Manufacturing (AM)”,	4 <sup>th</sup> International and 24 <sup>th</sup> AIMTDR Conference, Jadavpur University, Kolkata, Dec 14-16, 2012.	International	2012
8.	Srinivasa Prakash Regalla, Kurra Suresh, Rohan Hingmire, Ramesh Verma,	“Sustainable Lubrication of Hybrid Rapid Incremental Forming (HRIF) of Extra Deep Drawing (EDD) Steel Sheet”,	Proceedings of the 8 <sup>th</sup> International Conference on Industrial Tribology (ICIT-2012), Dec 7-9, 2012, The Westin Pune Koregaon Park, India (TSI-812506), p.8.	International	2012
9.	Anup Darshan, Umamaheshwar Reddy Paturi, Narala Suresh Kumar Reddy, Srinivasa Prakash Regalla	, “A Comparative Study of Tribological Behaviour of Steel Sliding Against WC under Mineral and biodegradable Oil Lubrication”,	Proceedings of the ASME- 2012 International Mechanical Engineering Congress & Exposition (IMECE-2012), Nov 9-15, 2012, Houston, Texas, USA (IMECE2012-87182).	International	2012
10.	Srinivasa Prakash Regalla, K. Suresh, Varikuti Sainath, Nirbhay Kothari,	“Rapid Incremental Sheet Metal Forming of EDD Steel: Feature Based Combined Spinning and Incremental Forming”,	1st International Conference on Functional Materials for Defence, 2012, ICFMD, June 2012, DIAT, Pune, India.	International	2012
11.	Pushkar Kumar Jain, Srinivasa Prakash Regalla,	“Formability and Forming Limit Diagram: Using Square Grid for Uncoated and Zinc Coated GI Steel Sheet”,	Proceedings of the International Conference on Materials Processing and Characterization, March 8-10, 2012, GRIET, Hyderabad, India, pp. 54- 59.	International	2012
12.	Kurra Suresh and Srinivasa Prakash Regalla,	“Modeling and Simulation of Asymmetric Incremental Sheet Metal Forming: A Review”.	Proceedings of the International Conference on Materials Processing and Characterization, March 8-10, 2012, GRIET, Hyderabad, India, pp. 25- 30.	International	2012



13.	Pavan Kumar Gurrala, Srinivasa Prakash Regalla,	“Optimization of Support Material and Build Time in Fused Deposition Modeling (FDM) using Central Composite Design Methodology (CCD)”,	Proceedings of the 26 <sup>th</sup> International Conference on CAD/CAM, Robotics & Factories of the Future (CARs&FOF), 26-28 July, 2011, Kuala Lumpur, Malaysia pp.55-66.	International	2011
14.	Pavan Kumar Gurrala, Srinivasa Prakash Regalla,	“Optimization of Support Materials and Build Time in Fused Deposition Modeling (FDM)”,	Proceedings of the International Conference on Mechanical and Aerospace Engineering (ICMAE 2011), March 21-23, New Delhi, IEEE Catalog Number: CPF1147L-PRT (ISBN: 978-1-4244-9505-4), pp. 287-291.	International	2011
15.	R. Parameshwaran, Y.V.D. Rao	Fluid-structure interactions and flow induced vibrations: A review	12th International Conference on Vibration Problems, IIT Guwahati, December 2015 (Accepted)	International	2015
16.	Prashant Kumar Pattnaik, Y.V.D. Rao, Jatin Kashyap	A novel 3D MEMS Fabrication/Micro cutting facility by Thermal Actuated MEMS device	ISSS National Conference on MEMS Smart Materials, Structures and Systems September 23-25, 2015, Kochi, India.	National	2015
17.	Shanmukhasundaram, V. R., Y. V. D. Rao, S. P. Regalla, and Adesh Garg	Structural implications of the graph theory representation in epicyclic gear trains	In MOOC, Innovation and Technology in Education (MITE), 2014 IEEE International Conference on, pp. 171-174. IEEE, 2014.	International	2014
18.	Rao, Y. V.D. K. Sai Manish, V. R. Shanmukhasundaram, and S. P. Regalla	An Algorithm to Reduce the Number of Graphs to Be Handled in the Test for Isomorphism among Planetary Gear Trains	In Eco-friendly Computing and Communication Systems (ICECCS), 2014 3rd International Conference on, pp. 282-286. IEEE, 2014.	International	2014
19.	Taufeeq Rahmani & Y V D Rao	Synthesis and Analysis of Planetary Gear Trains using genetic algorithm	3rd IEEE International Conference on sustainable and eco-friendly computing, NIT K Surathkal, Karnataka, Dec 2014	International	2014



20.	S.Adil, G.R. Sabareesh, Y.V.D.Rao	Investigation on flow induced vibrations of a square cylinder	International Conference on Emerging Technologies in Mechanical Sciences, MCET, 26-27 Dec2014.	International	2014
21.	Shashank Choudhary & Y.V.D.Rao	A review paper on advancement of robotic fish	International conference, ICAME, COEP, India, May 2013	International	2013
22.	I. Rajasri, A. V. S. S. K. S. Gupta, Y. V. D. Rao	Some structural aspects that are relevant for synthesis of planetary gear trains	International Conference On Wind Energy Materials, Engineering And Policies (WEMEP'12) in BITS Pilani, Hyderabad Campus, Hyderabad, November 1-3, 2012.	International	2012
23.	B Anusha, Y V D Rao	Artificial Muscle Actuators: Mechanisms and Applications	International Conference on Advanced Electrical, Electronics Engineering and Application (ICAEEEE), August 2012, Pages: 57-63, ISBN: 987-9381361-18-9.	International	2012
24.	Prathap Narayanappa, Y.V. Daseswararao	Vibration Suppression using Mechatronic Systems - A Review	International Conference on Mechanical and Industrial Engineering, Goa, July 2012.	International	2012
25.	Janapamula Jayasree Y.V.D Rao,	Underwater Depth Adjustable Sensor Node	International Conference on Mechanical and Industrial Engineering, 2012 Goa, July 2012.	International	2012
26.	Asmit Joshi and YV D Rao	Application of Boolean Algebra for the study of Epicyclic Gear Trains	International Conference on Material Processing and Characterization, March 2012.	International	2012
27.	Nikhil Tatke Y V D Rao	Kinematic Modelling of Robotic manipulators using two classical approaches	International conference on materials processing and characterization Hyderabad, March 2012.	International	2012
28.	Anup Darshan, Y.V.D. Rao	Force and Moment Sensors for Robotic Application-A Review	ICMPC2012 International Conference on Materials Processing and Characterization, Hyderabad, March 2012.	International	2012



29.	Anup Darshan, Y.V.D. Rao	Sensors for Robotic hands- A review	National Conference on Role of Science and Technology for sustainable development of Chhattisgarh, Shri Shankaracharya Technical Campus, Bhilai, India, Jan 2012.	National	2012
30.	V R Shanmukhasundaram, Y.V.D.RAO	Kinematic reliability estimation for robotic manipulators	International Conference for Materials Processing and Characterization, Hyderabad, March 2012.	International	2012
31.	M. Karthik Teja, YVD RAO	Some design aspects of Biped Robots and their control	International Conference for Materials Processing and Characterization, Hyderabad, pp 475-478, March 2012.	International	2012
32.	V R Shanmukhasundaram, YVD RAO	Reliability based analysis of errors in robotic manipulator joints	National conference on Role of Science and Technology for Sustainable Development of Chattisgarh, Bhilai, Jan 2012.	National	2012
33.	I. Rajasri, A. V. S. S. K. S. Gupta, Y. V. D. Rao	Structural aspect of symmetry and its effect on generation of planetary gear trains	International Conference In Mechanical And Aerospace Engineering (CMAE-2011), SRM University, Noida, New Delhi, March 21st - 23rd , 2011	International	2011
34.	I. Rajasri, A. V. S. S. K. S. Gupta, Y. V. D. Rao	Various approaches for synthesis of Epicyclic Gear Trains	National Conference on Latest Trends in Mechanical Engineering, VITS, Dshemukhi, December 2011	National	2011
35.	I. Rajasri, A. V. S. S. K. S. Gupta, Y. V. D. Rao	Structural aspect of symmetry in planetary gear trains	National Conference On Trends In Mechanical Engineering (TIME-10), KITS Warangal, December 30th, 2010.	National	2010
36.	Pavan Puranik & Daseswara Rao Yendluri	Robot Hand Structure and Tele-Operation System	International Conference on Agile Manufacturing Systems, 2011, Agra, India	International	2011





37.	Prathap Narayanappa & Y.V. Daseswara Rao	Kinematic Modeling of 5 Degree of Freedom Humanoid Robotic Hand	International Conference on Agile Manufacturing Systems, 2011, pp.888-893	International	2011
38.	UM Reddy Paturi, Y.V.D.Rao & A. V. S. S. K. S. Gupta	An outline study of Vibration-Based damage detection approach in Mechanical structures	Golden Jubilee National Conference on Advances in Mechanical Engineering(AIM Engg 2011) organized by Manipal Institute of Technology, Manipal from 03-05th January, 2011	National	2011
39.	Vishal Ramesh, Srinivas Morapakala, Nikhil Agarwal	<i>AirAid - An alternative for harnessing Wind Energy using Venturi effect for low-wind regimes</i>	14 <sup>th</sup> International conference on sustainable energy technologies (SET-2015). 25 <sup>th</sup> - 27 <sup>th</sup> of August 2015. University of Nottingham, Nottingham, UK	International	August 2015
40.	Morapakala Srinivas, Dileep M. Paul. Mnjunath. P, Rinu Thomas	<i>Kalina cycle based solar Air conditioning system</i>	International conference on polygeneration (ICP-2015). 18 <sup>th</sup> - 20 <sup>th</sup> February 2015. Anna University, India	International	February 2015
41.	Morapakala Srinivas, P. Vivekh, V. Vishwantkumar, M. Sudhakar	<i>Desalination technology selection: two possible approaches, the conventional approach and MCE approach.</i>	International conference on polygeneration (ICP-2015). 18 <sup>th</sup> - 20 <sup>th</sup> February 2015. Anna University, India	International	February 2015
42.	Srinivas Morapakala, Akshay Ananthakrishnan, Sandip Deshmukh	<i>Design of Solar Heliostat System for a Community Level Cooking Application</i>	12 <sup>th</sup> International conference on sustainable energy technologies (SET-2013). 26-29 <sup>th</sup> August 2013. Hong Kong Polytechnic University, Hong Kong.	International	August 2013
43.	Pushkar Kumar Jain, Srinivas Morapakala	<i>Selection of wind energy sites: A fuzzy logic rule based multiple criteria evaluation (MCE) approach</i>	Indo-Danish International conference on wind energy: materials, engineering and policies (WEMEP 2012). 22-23 November. BITS, Pilani-Hyderabad campus, India	International	November 2012



44.	Srinivas Morapakala, MD Belal Ahmed, Teja Dasari	<i>Evaluation of “viability” of sites for wind energy harnessing-a fuzzy logic rule based multi criteria evaluation technique</i>	Sustainable future energy 2012 and 10 <sup>th</sup> see forum innovations for sustainable and secure energy 21-23 November 2012, Brunei Darussalam	International	Novem ber 2012
45.	Morapakala Srinivas, Motati Chandra Lekha, Vundekode Soumya	<i>Development and implementation of a software framework for registration and performance evaluation of university students in a flexible academic environment</i>	International educational technology conference (IETC 2011). 25-27 May 2011. Istanbul University, Turkey	International	May 2011
46.	Morapakala Srinivas, Ramachandran M	<i>Multi criteria evaluation of viability of a renewable energy technology</i>	International Conference on Advances in Energy Conversion Technologies (ICAECT 2010). 7-10 January 2010. Manipal Institute of Technology. Manipal. India	International	Janua ry 2010
47.	Chirag I Sancheti., Aditya, B. and Gupta, A.K.	Improvement of production by assembly line simulations using FlexSim	International Conference on Advance Design and Manufacturing (ICADM 2014), Dec 05-07	International	2014
48.	Eswar P..K, Raman G. R., Singh, S.K. and Gupta, A.K.,	Some Investigations of Stretching operation of EDD Steel at elevated Temperatures using FEM	International conference on Computer Science and Information Systems (ICSIS'2014), Dubai, UAE, Oct 17-18	International	2014
49.	Sajun P. K. and Gupta, A.K.	A Constitutive Description to Predict High- temperature Flow Stress in Austenitic Stainless Steel 316	International Conference on Materials Processing and Characterization (ICMPC 2014), Mar 08-09, 2014.	International	2014
50.	Hussaini, S.M., Gupta, A.K. and Singh, S.K.	Investigation of Material Model for Simulations of Deep Drawing in Dynamic Strain Aging Region	3rd International Conference on Materials Processing and Characterization (ICMPC 2014), Mar 08-09, 2014	International	2014
51.	Raghuram K.D., Aditya, B., Gupta, A.K. and Singh, S.K.	Mechanical Properties of Austenitic Stainless Steel 316 at Elevated Temperatures	International Conference on Structural Integrity (ICONS-2014), IGCAR, Kalpakkam, India, Feb 04-	International	2014



			07, 2014		
52.	Kotkunde, N., Aditya, B., Gupta, A.K., and Singh, S.K.	Flow stress prediction of Ti-6Al-4V alloy at elevated temperature using artificial neural network	International Symposium on Engineering and Technology, Pune.	International	2014
53.	Jayahari, L., Gupta, A.K., Balu Naik, B., and Singh, S.K.	Formability analysis of Austenitic stainless steel-304 under warm conditions	9th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Process, Jan 6-10, Deakin University, Melbourne, Australia, AIP Proceedings, pp 402-405.	International	2014
54.	Kotkunde, N., Deole, A.D., Gupta, A.K., and Singh, S.K.	Effect of process parameters on deep drawing of Ti-6Al-4V alloy using finite element analysis	9th International Conference and Workshop on Numerical Simulation of 3D Sheet Metal Forming Process, Jan 6-10, Deakin University, Melbourne, Australia, pp.1065-68. (AIP Conference Proceedings 1567, 1065 (2013); DOI: 10.1063/1.4850155)	International	2014
55.	Kotkunde, N., Deole, A.D., Gupta, A.K., and Singh, S.K.	Development of constitutive models for Ti-6Al-4V alloy over wide ranges of low strain rates and temperatures	8th COPEN 2013, NIT Calicut.	International	2013
56.	Kotkunde, N., Deole, A.D., Gupta, A.K., and Singh, S.K.	A comparative study on modified Johnson-Cook and Fields-Baclofen constitutive models to predict flow behavior of Ti-6Al-4V alloy sheet at elevated temperature	International Conference on Computer Aided Engineering (CAE-2013), IIT Madras.	International	2013
57.	Aditya, B., Sharath Chandra G. and Gupta, A.K..	Multi-objective optimization of turning operations using non-dominated sorting genetic algorithm enhanced with neural network	International Conference on Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT), Surat, Gujarat, India, July 01-03, 2013, pp 106-110.	International	2013



58.	Hansoge, N.K., Singh, Y., Gupta, A.K. and Singh, S.K.	Prediction of deformation behavior of austenitic stainless steel 304 in dynamic strain aging regime	International Conference on Materials Processing and Characterization (ICMPC), Hyderabad, March 17-18, 2013.	International	2013
59.	Kotkunde, N., Gupta, A.K., Hansoge, N.K., Puranik, P. and Singh, S.K.	Development of modified Arrhenius model for Ti-6Al-4V alloy to predict flow stress	International Conference on Materials Processing and Characterization (ICMPC), Hyderabad, March 17-18, 2013.	International	2013
60.	Kotkunde, N., Gupta, A.K., Hansoge, N.K., Puranik, P. and Singh, S.K.	Study of flow stress analysis for Ti-6Al-4V alloy using modified Zerilli-Armstrong model	International Conference on Advances in Materials Processing and Characterization (AMPC), Chennai, February 6-8, 2013, pp 933-939.	International	2013
61.	Hansoge, N.K., Singh, Y., Gupta, A.K. and Singh, S.K.	Flow stress prediction of austenitic stainless steel 304 in dynamic strain aging regime using Arrhenius type equation	International Conference on Advances in Materials Processing and Characterization (AMPC), Chennai, February 6-8, 2013, pp. 651-659.	International	2013
62.	Singh, S.K., Kranthi Raj, M.L., Bandhavi, B. and Gupta, A.K.	Characterization and formability of commercially pure titanium at elevated temperature using finite element method	4th International and 25th AIMTDR, Jadavpur Univesity, Kolkata, December 14-16, 2012, pp 168-173.	International	2012
63.	Hussaini, S.M., Gupta, A.K. and Singh, S.K.	Determination of the limiting drawing ratio in deep drawing process at different temperatures for austenitic stainless steel	4th International and 25th AIMTDR, Jadavpur Univesity, Kolkata, December 14-16, 2012, pp 64-67.	International	2012
64.	Kotkunde, N., Gupta, A.K., Hansoge, N.K., Puranik, P. and Singh, S.K.	Flow stress prediction of Ti-6Al-4V using modified Johnson Cook model	3rd Asian Conference on Mechanics of Functional Materials and Structures (ACMFMS), Delhi, December 5-8, 2012, pp 709-802.	International	2012
65.	Singh, Y., Hansoge, N.K., Gupta, A.K. and Singh, S.K.	A comparative study of constitutive models to predict flow stress behaviour in dynamic strain aging regime of austenitic stainless steel	2nd International Conference on Materials Science, Metal & Manufacturing (M3 2012), Singapore, November 19-20, 2012, pp 98-106.	International	2012



		316			
66.	Jayahari, L., BaluNaik, B., Gupta, A.K. and Singh, S.K.	Study of microhardness of deep drawn cups for austenitic stainless steel-304 under warm conditions	11th International Conference on High Nitrogen Steels and Interstitial Alloys, Chennai, September 27-29, 2012.	International	2012
67.	Sharath Chandra G, Raghuram K.D., Gupta, A.K. and Singh, S.K.	Predicting flow stress in dynamic strain aging regime of ASS 304 using support vector regression	11th International Conference on High Nitrogen Steels and Interstitial Alloys, Chennai, September 27-29, 2012.	International	2012
68.	Singh, S.K., Sasidhar, V., Kumar, V., Reddy, P. and Gupta, A.K.	Comparison of warm and hydromechanical deep drawing when low carbon steel is subjected to ironing	15th International Conference on Advances in Materials & Processing Technologies, Wollongong, NSW Australia, September 23-26, 2012.	International	2012
69.	Bhattacharya, S., Wadhwa, A., and Gupta, A.K.	Flow stress prediction in austenitic stainless steel 316 at elevated temperatures (673 K – 923 K)	International Conference on Materials Processing and Characterization (ICMPC), Hyderabad, March 8-10, 2012, pp 124-128	International	2012
70.	Sainath, V., Sukesh, M.V., and Gupta, A.K.	Flow stress prediction in austenitic stainless steel 304 at elevated temperatures	International Conference on Materials Processing and Characterization (ICMPC), Hyderabad, March 8-10, 2012, pp 129-134.	International	2012
71.	Hussaini, S.M., and Gupta, A.K.	Mechanical threshold stress model for prediction of flow stress	International Conference on Materials Processing and Characterization (ICMPC), Hyderabad, March 8-10, 2012, pp 135-138.	International	2012
72.	Gupta, A.K., Hariharan, G. and Sivakumar, A.I.	Pareto control in multi-objective dynamic scheduling using artificial neural network	In proceedings of the 2011 International Conference on Advances in Supply Chain and Manufacturing Management (ASCMM 2011), Kharagpur, India, Dec. 16-18, 2011.	International	2011



73.	Singh, S.K., Reddy, R. and Gupta, A.K.	Comparison on Load and Formability of Low Carbon Steel in Warm and Hydro-mechanical Deep Drawing	International Conference on Materials Science, Metal & Manufacturing (M3), Singapore, Dec 12-13, 2011.	International	2011
74.	Anirudh, V.K., Amrutha, G., Gupta, A.K. and Singh, S.K.	Flow stress prediction in austenitic stainless steel 316 at elevated temperatures	International Conference on Advances in Materials and Materials Processing, IIT Kharagpur, India, Dec 9-11, 2011.	International	2011
75.	Jayahari, L., Gaud, R., Gupta, A.K. and Singh, S.K.	Experimental and Design consideration of Stretching of EDD steel sheet at elevated temperatures	International Conference on Advances in Materials and Materials Processing, IIT Kharagpur, India, Dec 9-11, 2011.	International	2011
76.	Singh, S.K., Swathi, M., Ramjee and Gupta, A.K.	Experimental Investigations and Thermal Analysis of Formability of EDD Steels in Warm Forming (up to 4500 C)	3rd International and 24th AIMTDR, College of Engineering AU, Vishakapatnam, India, Dec 13-15, 2010.	International	2010
77.	Hussaini, S.M., Majumdar, B., Akhtar, D. and Gupta, A.K.	Evaluation of glass forming ability in bulk Zr based glasses alloying with Ti, Nb	2nd International Conference on Production and Industrial Engineering (CPIE), NIT Jalandhar, India, Dec 3-5, 2010.	International	2010
78.	Singh, S.K., Kranti Raj, M.L., Hussaini, S.M., and Gupta, A.K.	Characterization and formability of aluminum IS 737 40800 grade material at elevated temperature	2nd International Conference on Production and Industrial Engineering (CPIE), NIT Jalandhar, India, Dec 3-5, 2010.	International	2010
79.	Singh, S.K. and Gupta, A.K.	Comparison of yield criteria for warm forming of EDD steel using FEM	International Conference on Computing, New Delhi, India, Dec 27-28, 2010.	International	2010
80.	Swati Soni, Praveen K. Mishra, Ragamadhuri Nallam and Jeevan Jaidi	Effect Of Fin Surface Roughness and Array Of Grooves On Heat Transfer Enhancement	23 <sup>rd</sup> National Heat and Mass Transfer Conference and 1 <sup>st</sup> International ISHMT-ASTFE Heat and Mass Transfer Conference	International	2015
81.	Amrita Yelikar, Ragamadhuri Nallam and Jeevan Jaidi	Computational Fluid Dynamics Study and Validation of Rushton Turbine Impeller	23 <sup>rd</sup> National Heat and Mass Transfer Conference and 1 <sup>st</sup> International ISHMT-ASTFE Heat and Mass Transfer Conference	International	2015



82.	Abhishek Goyal, Jyoti Gautam and Jeevan Jaidi	A Computational Fluid Dynamics Study on Stall Controlled Wind Turbines	Global Conference on Renewable Energy (GCRE 2015) Conference	International	2015
83.	Sreesankaran M Namboothiri and Jeevan Jaidi	Solar Refrigeration and Air Conditioning: A Newfangled Review	Global Conference on Renewable Energy (GCRE 2015) Conference	International	2015
84.	Dileep M. Paul, Manjunath P, Rinu Thomas and Jeevan Jaidi	A Review on Power-To-Gas Energy Storage Technology	Global Conference on Renewable Energy (GCRE 2015) Conference	International	2015
85.	Manjunath P, Dileep M. Paul, Rinu Thomas and Jeevan Jaidi	Incineration: A Comprehensive Review	Global Conference on Renewable Energy (GCRE 2015) Conference	International	2015
86.	Nikhil T, Shreyas M, Jeevan J, Karthik Teja M	Predicted and Measured Thermal Profiles During Friction Stir Welding Process of Aluminium-alloy	International Conference on Advances in Materials and Mechanical Engineering (ICAMME-2015)	International	2015
87.	Aditya Shah and Jeevan Jaidi	A Comparative Study on Heat Transfer Enhancement using Phase-change Material: High gravity conditions vs. internal fins	International Conference on Polygeneration (ICP-2015)	International	2015
88.	Jithin P, Dileep M Paul, Rinu Thomas, Manjunath P and Jeevan Jaidi	District Heating: A Technological Review," International Conference on Polygeneration (ICP-2015)	International Conference on Polygeneration (ICP-2015)	International	2015
89.	B. Madhavi, J. Jeevan and M. Karthik Teja	Optimization Study of Friction Stir Welding Process Parameters and Nugget Properties of Aluminium-alloy	International Conference on Structural Integrity (ICONS-2014)	International	2014
90.	B. Madhavi, J. Jeevan and M. Karthik Teja	Heat and Material Flow Effects on Microstructures and Hardness in Friction-stir Welded Joints	International Conference on Structural Integrity (ICONS-2014)	International	2014
91.	Jeevan Jaidi	A Low-Reynolds Number Based k-ε Model for Confined Diffusion Flame Reactor	22nd National and 11th ISHMT-ASME Heat and Mass Transfer Conference	International	2013



92.	J. Jaidi and P. Nikhil Babu	A Low-Reynolds Number Based k-ε Turbulence Models for Separated Flows: Model validation and assessment	20th National and 9th ISHMT-ASME Heat and Mass Transfer Conference	International	2010
93.	Rakesh Kumar Gunda, Narala Suresh Kumar Reddy, H.A. Kishawy	A Novel Technique to Achieve Sustainable Machining System	13th GCSM	International	2015
94.	Sravan Kumar Josyula, Narala Suresh Kumar Reddy, Guru Charan Gupta Etaa, H.A. Kishawy	Sustainable Machining of Metal Matrix Composite Using Liquid Nitrogen	13th GCSM	International	2015
95.	Uma Maheshwera Reddy Paturi, YesuRatnam M, Ramalinga Reddy Marri, Suresh Kumar Reddy Narala	Measurement and Analysis of Surface Roughness in WS2 Solid Lubricant Assisted Minimum Quantity Lubrication (MQL) Turning of Inconel 718	13th GCSM	International	2015
96.	Armando Marques, Cludes Guimarães, Marcelo do Nascimento Sousa, Narala Suresh Kumar Reddy, Osmar Custódio de Moura Filho, Álisson Rocha Machado,	Vida Da Ferramenta E Mecanismos De Desgaste No Torneamento Do Inconel 718 Com Aplicação Do Grafite Como Lubrificante Sólido	8th Congresso Brasileiro de Engenharia de Fabricação	International	2015
97.	J. Sravan Kumar, G. Rakesh Kumar and N. Suresh Kumar Reddy	A Study for Selection of Cutting Parameters in Turning Process using Decision Making Method	ICARIMMIEM - 2014	International	2014
98.	Narala Suresh Kumar Reddy · H A Kishawy	Beneficial Effects Of Solid Lubricant Mixture Assisted Machining	41 North American Manufacturing Research Institution of SME (NAMRI/SME)	International	2013
99.	Uma Maheshwera Reddy P and N. Suresh Kumar Reddy	Finite Element Analysis and Study of Tool Wear in Machining With Coated Tools	ASME 2013 IMECE	International	2013





100.	Uma Maheshwera Reddy P and N. Suresh Kumar Reddy	Investigation on wear behavior of electrostatic micro-solid lubricant coatings under dry sliding conditions	ASME 2012 IMECE	International	2012
101.	Kiran C.P. and Shibu Clement	X-abilities and attributes based decision making in evaluation and selection of a turbine blade material	ICMIE 2015, Mar 21-23, 2015, Singapore.	International	2015
102.	Kiran C.P., Shibu Clement, H.Chelladurai	Experimental evaluation of quality interactions in material processing	Proceedings of International conference on Product Life cycle, Modeling, Simulation and Synthesis, PLMSS2014, Jan 6-8, 2014, VITS, Vellore, Tamilnadu, India	International	2014
103.	Kiran C.P. and Shibu Clement	Turbine blade material selection for CNC Turning using MADM	Proceedings of International Conference on Advances in Mechanical Engineering, May 29-31, 2013, COEP, Pune, Maharashtra, India	International	2013
104.	Kiran C.P., Shibu Clement and Aneet S.R	Experimental investigation for surface quality of turbine blade material	4 <sup>th</sup> International & 25 <sup>th</sup> All India Manufacturing Technology, Design Research, AIMTDR 2012, Dec 14-16 , Kolkota, pp. 822-827	International	2012
105.	Kiran C.P., Shibu Clement and Agrawal V.P.	Quality analysis of a mechatronic system using colored graph and Boolean function	National Systems Conference, 10-12 Dec, Suratkal, India, pp. 58-59.	National	2010
106.	Amrita Priyadarshini, Chirag Sancheti, Saisudeep Dwarka	COMPARATIVE STUDY OF FORGEABILITY OF AS EXTRUDE AA6082 AND AS CAST AA6082 ALLOY	17 <sup>th</sup> ISME conference on "Advances in Mechanical Engineering", IIT Delhi (Paper accepted, Conference to be held)	International	3 <sup>rd</sup> -4 <sup>th</sup> October, 2015
107.	Sailendu Biswal, G R Sabareesh	Design and development of a wind turbine test-rig for condition monitoring studies	IEEE International Conference on Industrial Instrumentation and control, Pune, May 2015	International	2015
108.	Syed Adil, G R Sabareesh, YVD Rao	Investigations on flow induced vibration of a square cylinder	International Conference on Emerging Technologies in Mechanical	International	2014



			Sciences(ICEMS), Hyderabad, Dec 2014		
109.	Jithin George, Sailendu Biswal, G R Sabareesh	Methodologies and Analysis Techniques in Wind Turbine Condition Monitoring-A Review	2 <sup>nd</sup> International Conference on Emerging Trends in Technology and Applied Sciences (ICETTAS 2015), Kottayam, May 2015	International	2015
110.	G R Sabareesh, Masahiro Matsui, Yukio Tamura	Instantaneous building roof pressures under translating tornado vortices	7 <sup>th</sup> National Conference on Wind Engineering, Thapar University, Patiala, Nov 2014	National	2014
111.	Dubey, S. K., & Srinivasan, P.	Transient Heat Conduction Model and its Application to Billet Transport Simulation with Oxide Scale.	Proceedings of 22nd National and 11th International ISHMT- ASME Heat and Mass Transfer Conference (HMT1300139). IIT Kharagpur, India: ISHMT- ASME	International	2013
112.	Dubey, S. K., Agarwal, N., & Srinivasan, P.	Three Dimensional Transient Heat Transfer Model for Steel Billet Heating in Reheat Furnace.	Proceeding of the ASME Summer Heat Transfer Conference. 2, pp. 963- 967. Rio Grande, Puerto Rico, USA: ASME. doi:10.1115/HT201258151	International	2012
113.	Dubey, S. K., & Srinivasan, P.	Transient Heat Transfer Modeling and Simulation of Hot Billet Transport for Temperature Predictions and Energy Efficiency	Proceedings of 21st National and 10th International ISHMT- ASME Heat and Mass Transfer Conference (pp. 251-256.). IIT, Madras, India: ISHMT-ASME.	International	2011
114.	Tekawande, A., Dubey, S. K., & Srinivasan, P.	Simulation of Induction Heating Model in Pipe Bending Process.	Proceedings of the 3rd International Conference on Advances in Mechanical Engineering, (pp. 313-318). SVNIT, Surat, India.	International	2010
115.	Dubey, S. K., & Srinivasan, P.	Heat Transfer Simulation of Pusher Reheat Furnace.	National Conference on Modelling, Computational Fluid Dynamics & Operations Research. BITS, Pilani, India.	National	2012



116.	Mohit, K., Milind, M., Rahul, P., & Javed, A.	Intelligent lighting system for college classroom	In Proceedings of International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Punjab Technical University, Kapurthala, Punjab, India.	International	2014
117.	Kulkarni, A., & Javed, A.	Performance investigation of topologically optimized manipulator link	In Proceedings of International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Punjab Technical University, India	International	2014
118.	Amitabh, K., & Javed, A.	Simulation of dynamic performance-reliability for indigenously developed 3-DOF manipulator,	In Proceedings of International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Punjab Technical University, Kapurthala, Punjab, India.	International	2014
119.	Shankar, A., Kumar, R., Bhandge, S.V., Shradhe, S.B., Srinivas, N., & Javed, A.	Dynamic modeling of multi motioned hexapode.	In Proceedings of International Conference on Computer Aided Engineering (CAE-2013), Indian Institute of Technology, Madras, Chennai, India,	International	2013
120.	Bhargav, T., Aggarwal S., Das, S.K., & Javed, A.,	Design of a simplified four legged walker	In Proceedings of International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Punjab Technical University, Kapurthala, Punjab, India.	International	2013
121.	Javed, A., & Rout, B.K.,	Parametric Sensitivity of Topologically Optimized Structures using RBTO Technique	In Proceedings of Third Asian Conference on Mechanics of Functional Materials and Structures (ACMFMS 2012), Indian Institute of Technology, Delhi, (pp. 252-255). India,	International	2012



122.	Javed, A., Sengar, A.K., & Rout, B.K.	A FEM and Image Processing Based Method for Simulation of Manufacturing Imperfections	In Proceedings of International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Punjab Technical University, Kapurthala, India,	International	2012
123.	Javed, A., Safal, M., & Rout, B.K.	Numerical Simulation of Compliance Variation for a Topology-Optimized Structure	In Proceedings of IEEE international conference on Process Automation, Control and Computing (PACC), Coimbatore, Tamilnadu, India.	International	2011
124.	Aqsa, M., Rwitajit, M., & Javed, A.	A Neural Network Based Approach for Error Minimization in the Inverse Kinematics Solution for 6-DOF Manipulator	In Proceedings of 5th international conference on advances in Mechanical Engineering, SVNIT, Surat, India.	International	2011
125.	Javed, A., Rao, J.M., & Sasi, J.C	Simulation of Performance-Reliability for Indigenously Developed Manipulator	In Proceedings of National Conference on Advances in Manufacturing Technology, National Institute of Technical Teachers' Training and Research, Chandigarh.	National	2013
126.	Javed, A., & Rout B.K.,	Issues in Design for Manufacturing using Topology Optimization Method	Presented in National Conference on Modeling, Computational Fluid Dynamics & Operations Research under UGC-SAP, DRS I, Birla Institute of Technology & Science, Pilani, Rajasthan.	National	2012
127.	Javed, A., & Soni, G.	Quantifying Push and Pull in Supply Chain	Proceedings of Twenty-seventh National Convention of Mechanical Engineers on Advances in MEMS and Robotics in Manufacturing Industries, Jaipur.	National	2011
128.	Syed Mujahed Hussaini, Gupta AK, Singh SK	Investigation of ASS 316 formability at elevated temperature	3rd International Conference and Exhibition on Mechanical & Aerospace Engineering,	International Conference	October, 2015



			San Francisco, USA,		
129.	Sagar I, Nikhil T, Narayanamurthy V and Hussaini S,	Influence of Fiber Direction and Stacking Sequence for Design of Flight Interface Brackets of CFRP Laminate	ICCME-2015, , Kochi, Kerala, India.	International Conference	August, 2015
130.	Syed Mujahed Hussaini, Gupta AK, Singh SK	Formability studies of ASS 316 under different forming conditions	4 <sup>th</sup> ICMPC- 2015, GRIT, Hyderabad, India	International Conference	March-2015
131.	SM Hussaini, Arun K, AK Gupta	Study of Stresses and Deformation During Deep Drawing Process	ICAMMP-2011, IIT – Kharagpur	International Conference	December 2011
132.	Suresh, K., Khan, A., & Regalla, S. P.	Tool Path Definition for Numerical Simulation of Single Point Incremental Forming	ICONDM-IIITDM-Kanchipuram	International	2013
133.	Suresh, K., & Regalla, S. P.	Analysis of Formability in Single Point Incremental Forming Using Finite Element Simulations	3rd ICMPC - Hyderabad	International	2014
134.	Suresh, K., & Regalla, S. P.	Effect of Mesh Parameters in Finite Element Simulation of Single Point Incremental Sheet Forming	3rd ICMPC - Hyderabad	International	2014
135.	Suresh, K., & Regalla, S. P.	Formability of extra deep drawn steel in single point incremental forming	NUMISHEET-AUSTRALIA	International	2014
136.	Shashank Choudhary, Chiruvolu Mohan Tejesh, Srinivasa Prakash Regalla and Kurra Suresh.	Parametric analysis of plastic strain and force distribution in single pass metal spinning	NUMISHEET-AUSTRALIA	International	2014
137.	Suresh, K., & Regalla, S. P.	Modeling and Simulation of Asymmetric Incremental Sheet Metal Forming: A Review.	1st ICMPC - Hyderabad	International	2014
138.	Suresh, K., & Regalla, S. P.	Digital fabrication in sheet metal forming : Incremental forming.	<i>International symposium on digital fabrication-IIT HYDERABAD</i>	International	2015



139.	N. Tatke, Nitin Kotkunde	Numerical Evaluation of Stress Intensity Factor for Inclined-Edge Crack Geometry using Singularity Elements	2nd International Conference on Materials Processing and Characterization (ICMPC), GRIET-Hyderabad Note: The same paper is published in Advanced Materials Manufacturing & Characterization 2013; 3 (1): 149-153.	International	2013
140.	Nitin Kotkunde, AD. Deole, AK. Gupta	Prediction of Forming Limit Diagram for Ti-6Al-4V Alloy Using Artificial Neural Network	3rd International Conference on Materials Processing and Characterization (ICMPC), GRIET-Hyderabad, March, 2014 Note: Same paper is published in Procedia Materials Science 2014; 6: 341–346 (Elsevier)	International	2014
141.	Nitin Kotkunde, AK. Gupta	Analysis of Forming Limit Diagram for Ti-6Al-4V Alloy	4th International Conference on Materials Processing and Characterization (ICMPC), GRIET-Hyderabad Note: The same paper is published in Materials Today: Proceedings 2015; 2: 3762 – 3769 (Elsevier).	International	2015
142.	Nitin Kotkunde, M. Prasad, A. Arote, AK. Gupta	Experimental and numerical study of formability for EDD steel	4th International Conference on Materials Processing and Characterization (ICMPC), GRIET-Hyderabad Note: The same paper is published in Materials Today: Proceedings 2015; 2: 3770 – 3777 (Elsevier).	International	2015
143.	Sandip Deshmukh, Adesh Jinturkar, Khalid Anwar	Determinants of Household Fuel Choice Behavior in Rural Maharashtra, India	International Congress on Environmental, Biotechnology, and Chemistry Engineering, , <i>IPCBE</i> vol.64 (2014) <i>IACSIT Press, Singapore, Pune, India</i>	International	2014
144.	Khalid Anwar, Sandip S Deshmukh, Sun Min	SIMPLE FABRICATION OF PDMS BASED	5th International and 26th All India Manufacturing	International	2014



	Kim	MICROFLUIDIC SYSTEM FOR MIXING AND DETECTION SYSTEM	Technology, Design and Research Conference (AIMTDR 2014), IIT Guwahati, December 12-14, 2014		
145.	Sandip Deshmukh & Khalid Anwar	Development of Microgrid Networks in Indian Context	12 <sup>th</sup> international congress on renewable energy (ICORE)- 2014, December 8-9, 2014, New Delhi	International	2014

### 23. Details of patents and income generated:

Faculty	Patent Details	Income Generated
Srinivasa Prakash Regalla	Method and System to Generate Personalized Data for Prosthetic Manufacturing (Provisional patent application filed on 13/08/2015), Application No. 4219/CHE/2015.	Yet to generate income
Srinivasa Prakash Regalla	"A Novel Deep Drawing Tooling with Selective Heating and Cooling for Tailor Welded Blanks (TWBs)", (Provisional patent application filed on 04/08/2015), Application No. 4038/CHE/2015.	Yet to generate income

### 24. Areas of consultancy and income generated

Faculty	Area of Consultancy	Income generated (Rupees)
Prof. Jeevan Jaidi	Industrial floatation cell, process modelling and optimization	41 lakhs
Mechanical Engineering Faculties	Intensive Training programme for faculties of MITS, Madanapalli	Non-profit basis

### 25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

Faculty	Institution
Dr. Sabareesh Geetha Rajashekharan	Visiting Researcher, State Key Lab for Disaster Risk Reduction, Tongji University, China

### 26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other : Nil

### 27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.



SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1.	Development of an integrated approach for modeling and management of micro grid operations	Prof. S .S. Deshmukh	Additional Competitive Research Grant, BITS-Pilani	9	2015-2017
2.	Anaerobic co-digestion of food waste and organic fraction of municipal solid waste for the production of biogas and concomitant use of biogas as fuel for Cooking and spent slurry as fertilizer	Prof. S .S. Deshmukh (Co PI)	BITS-Pilani	62	2014-2017
3.	Design and Development of an Urban Energy-Water Optioneering Tool (UEWOT)	Prof. S .S. Deshmukh (PI)	Research Initiation Grant, BITS-Pilani	2.0	2013-2015
4.	Heat Transfer modeling of cold water mist at the cutting zone using FSI model in machining of turbine blade materials	Dr. Phaneendra Kiran C	Additional Competitive Research Grant, BITS-Pilani	9.0	2015-2017
5.	Experimental investigation of suspended nano-solid particles lubricant in eco-friendly machining of turbine blade materials for better surface finish	Dr. Phaneendra Kiran C	Research Initiation Grant, BITS-Pilani	2.0	2013-2015
6.	Structural health monitoring of wind turbines using a comprehensive condition monitoring scheme.	Dr. Sabareesh G R	Additional Competitive Research Grant, BITS-Pilani	8.5	2015-2017
7.	Condition Monitoring of gear systems in wind turbines using machine learning and pattern recognition techniques"	Dr. Sabareesh Geetha Rajasekharan	Research Initiation Grant, BITS-Pilani	2.0	2014-2016
8.	Finite Element simulations of uniaxial tensile tests	Dr. Amrita Priyadarshini	Research Initiation Grant, BITS-Pilani	2.0	2014-2016
9.	Study of nanomaterials dimensional effects on thermo-kinetic properties of heat storage materials for sustainable thermal energy storage applications	Dr. R. Parameshwaran	Research Initiation Grant, BITS-Pilani	2.0	2015-2017





The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level.

Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

## 28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.

- percentage of students doing projects in collaboration with other universities /industry / institute

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

## 29. Awards / recognitions received at the national and international level

Faculty	Awards
Prof. Amit Kumar Gupta	<ul style="list-style-type: none"> <li>BARC Young Scientist Research Award</li> <li>UGC Research Award</li> <li>Prof. S. Venkateswaran Faculty Excellence Award instituted by BITSAA International</li> </ul>
Prof. N S K Reddy	<ul style="list-style-type: none"> <li>UOIT, Canada, Visiting Researcher Fellowship (May 2015-July 2015).</li> <li>UFU, Brazil, Visiting Researcher Fellowship, CNPq, Govt of Brazil (June 2014-July 2014)</li> <li>UOIT, Canada, Visiting Professor Fellowship (May 2013-July 2013)</li> <li>UOIT, Canada, Visiting Professor Fellowship (May 2012-July 2012).</li> <li>Secured International Travel Support (ITS)-2012 from "DST, CSIR, and INSA" to attend ASME-IMECE 2012 Conference held at Houston, USA during 9-15 Nov 2012.</li> </ul>
Dr. G. R. Sabareesh	<ul style="list-style-type: none"> <li>Best Master's Thesis Award in Wind Engineering from Indian Society for Wind Engineering</li> </ul>
Prof. S S Deshmukh	<ul style="list-style-type: none"> <li>Galileo Master Certificate recipient from the European Energy Center.</li> <li>OPERA (Outstanding Potential for Excellence in Research and Academics) award by BITS Pilani for 2015-2019</li> </ul>
Dr. R. Parameshwaran	<ul style="list-style-type: none"> <li>DST-PURSE Fellowship 2010</li> <li>5th Bry-Air Awards for Excellence in HVAC&amp;R 2010</li> </ul>



Mr. Nitin Kotkunde	<ul style="list-style-type: none"> <li>DST Travel grant to attend international conference held at Melbourne, Australia</li> </ul>
Dr. Pavan Kumar G.	<ul style="list-style-type: none"> <li>Best paper gold medal in ICAT, 2014</li> </ul>
Prof. Srinivasa Prakash Regalla	<ul style="list-style-type: none"> <li>BIG-5 grantee from BIRAC, DBT</li> </ul>

Doctoral / Post doctoral fellows: None

Students: None

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

Conferences/Workshops:

- a. Indo-Danish International Conference on Wind Energy: Materials, Engineering and Policies, Nov 22-23, 2012, BITS Pilani, Hyderabad Campus. 70 participants Metsonic engineers, Hemair, DTU- Denmark, Department of wind energy, DST and CSIR sponsored the conference.
- b. Workshop on Innovations in Waste, Water and Energy Technologies for Rural Development, 13<sup>th</sup> & 14<sup>th</sup> July, 2015 funded by National Institute of Rural development and Panchayat Raj.
- c. CAD/CAM Workshop (ANSYS, CFD Tools) 26-28 Oct 2012 - Department of Mechanical Engineering along with the technical support from Innovent Engineering Solutions, Bangalore conducted this workshop for the benefit of Students (FD and HD), Research Scholars and Faculty members;

More than 65 students and 5-6 faculty members attended this and got immensely benefitted.

- d. 5<sup>th</sup> International Conference on Product Life Cycle Modelling, Simulation and Synthesis, BITS Pilani, Hyderabad Campus (to be held on December, 2015).

**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.



**32. a) Student profile programme-wise:**

**2010- 2011**

Name of the Programme (refer to question no. 4)	Applications received	Selected*		Pass percentage	
		Male	Female	Male	Female
B.E. (Hons.) Mechanical Engineering	14662	55	07		
B.E. (Hons.) Manufacturing Engineering		0	0		

**2011- 2012**

B.E. (Hons.) Mechanical Engineering	12880	58	7	100	100
B.E. (Hons.) Manufacturing Engineering		0	0	0	0
M.E. Thermal Engineering	4571	3	1	100	100
M.E. Design Engineering		8	0	100	0
Ph.D.	461	2	0	-	0

**2012- 2013**

B.E. (Hons.) Mechanical Engineering	15714	52	8	In Final Year	In Final Year
B.E. (Hons.) Manufacturing Engineering		30	4	In Final Year	In Final Year
M.E. Thermal Engineering	4825	11	1	100	100
M.E. Design Engineering		9	1	100	100
Ph.D.	1173	3	1	-	-

**2013- 2014**

B.E. (Hons.) Mechanical Engineering	15120	57	7	In 3 <sup>rd</sup> year	In 3 <sup>rd</sup> year
B.E. (Hons.) Manufacturing Engineering		35	5	In 3 <sup>rd</sup> year	In 3 <sup>rd</sup> year
M.E. Thermal Engineering	5549	11	1	100	100
M.E. Design Engineering		7	0	100	100
Ph.D.	964	8	0	-	-

**2014- 2015**

B.E. (Hons.) Mechanical Engineering	18717	63	2	In 2 <sup>nd</sup> year	In 2 <sup>nd</sup> year
B.E. (Hons.) Manufacturing Engineering		30	4	In 2 <sup>nd</sup> year	In 2 <sup>nd</sup> year
M.E. Thermal Engineering	5172	4	2	In 2 <sup>nd</sup> year	In 2 <sup>nd</sup> year



M.E. Design Engineering		7	1	In 2 <sup>nd</sup> year	In 2 <sup>nd</sup> year
Ph.D.	773	0	0	-	-

### 33. Diversity of students

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.E Design Engg.	NIL	14	86	NIL
M.E. Mech Engg with Thermal Specialization	NIL	15	85	NIL
Ph.D	24	52	16	8

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.  
Unable to answer

### 35. Student progression

Student progression	Percentage against enrolled*
UG to PG	Approx. 25%
PG to M.Phil.	Nil
PG to Ph.D.	Approx 20%
Ph.D. to Post-Doctoral	Nil
Employed ☐ Campus selection ☐ Other than campus recruitment	Approx. 75%
Entrepreneurs	Unable to answer

\*This is the approximate data given. The department does not maintain the records for this.

### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	36.37
from other universities within the State	0.00



from universities from other States	50.00
from universities outside the country	13.63

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period Ph.D: 03 M.E: 1**

**38. Present details of departmental infrastructural facilities with regard to**

a. Library: Institute has a central library facility with around 1148 books related to the area of mechanical engineering.

b. Internet facilities for staff and students:

Campus wide is provided with LAN spreading kilometers of fiber backbone with over 4000 data-ports. The network is built using Cisco three-tier architecture with wired and WiFi access to users. All hostel rooms, staff housing, laboratories, class rooms, offices, and research labs are wired. WiFi is available at select places like cafeteria, library, academic blocks, etc. The Internet connectivity is available from two different links, a 155 Mbps fiber leased line and a 90 Mbps Licensed Band Radio (LBR). An e-mail account in the e-mail solution offers 25GB mail storage space, 5GB file storage space, collaboration tools, file sharing, personal web pages, calendaring etc. There is a Virtualization platform available for students to experiment with their assignments/ projects.

c. Students' laboratories:

Centre for Product Design and Realization (CPDR), Refrigeration Air-conditioning & Energy (RACE) Laboratory, Robotics and Mechatronics, Central Computer Aided Design Laboratory, Central Workshop, Computer Aided Manufacturing (CAM) Laboratory, Dynamics & Vibrations Lab, Fluid Machines and Machinery Laboratory, Heat Transfer Lab, Internal combustion engines lab, Materials Testing Lab, Tribology lab, Mechatronics and Automation Laboratory.

d. Research laboratories: Centre for Product Design and Realization (CPDR), Tribology lab, Computer Aided Manufacturing (CAM) Laboratory and Materials Testing Lab.

**39. List of doctoral, post-doctoral students and Research Associates**

- from the host institution/university: PhD scholars: 17, Research Associate: 1
- from other institutions/universities: 8

**40. Number of post graduate students getting financial assistance from the university:**

100%. (40% of fee waiver of semester fee or/and INR 10200 per month as stipend)



**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

As a standard practice, the department undertakes extensive assessment of demand for qualified professionals, job opportunities in industries and research organizations, opportunities for higher studies.

The department offered M.E. in Mechanical Engineering after wide consultations with GE Corporation for the need of their employees and the general potential for employability of the graduates in various different organizations. M.E. in Mechanical Engineering with specialization in Thermal Engineering having a lot of emphasis on renewable energy technologies was started after a thorough study of demand for qualified professionals in this area for both industrial practice and research within the country and abroad.

**42. Does the department obtain feedback from**

- Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes. The department conducts periodic review of curriculum and textbook/reference book suggestions through departmental faculty meetings, discussions in Cross Campus Departmental Committee for Academics (CCDCA) Departmental level committee for academics (DCA).

The feedback generated is utilized in revising course handouts, changing to more authentic textbooks wherever required, bringing in practice based components, adding laboratory components and projects.

- Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Feedback is taken centrally by Instruction Division of Each Campus of BITS. To improve the teaching, learning and Evaluation processes for FD and HD students. In addition, the feedback received through interactions of class committees is also fed into the improvement of course handouts and classroom teaching practice.

- Alumni and employers on the programmes offered and how does the department utilize the feedback?

Placement: Collection, analysis and utilization of Post -placement Feedback from industrial organizations.

Alumni: Interaction with Alumni by department faculty members for a few years after



graduation is contributing to some useful feedback.

In addition to that, useful feedback is generated through meetings with Alumni in yearly Alumni meets.

**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

**WORKSHOPS**

The Mechanical Engineering Department in collaboration with Engineers Without Borders (EWB), Efficient Carbon, and Andhra Pradesh Pollution Control Board (APPCB) jointly conducted a one-day Workshop at BITS-Pilani, Hyderabad Campus on "Environment, Clean Energy and Energy Conservation" on Saturday, Sept 3rd, 2011. Prof. S. P. Regalla, Prof. K. S. Raju (Civil Engineering Department), Dr. D. Jayakrishna and Dr. M. Srinivas were the organizing team members. The Workshop was attended by a large gathering of students and some very salient points on the theme were presented by experts including Dr. Ashok Agarwal (Chairman, EWB), Mr. Pradeep Palelli (Efficient Carbon), Mr. P. N. Rao (Executive Director, EWB) and Mr. T. Ravi (RSP Consultants).

**Invited talks arranged in the department**

1. Prof. P. Nageswara Rao, who is a Professor at the University of Northern Iowa, formally on 7-8-2011 inaugurated the starting and unveiled the website for local BPHC chapter of the Society of Automotive Engineers (SAE). The local BPHC chapter has currently around 200 student members.
2. Prof. P. N. Rao also delivered an invited talk, conducted by the Department of Mechanical Engineering, on "Rapid Prototyping Applications" on 17 August 2011.
3. Prof. A. Sethuramaiah, renowned tribologist of the country and recipient of life-time-achievement award from Tribology Society of India for excellent research in Tribology, delivered an invited talk on "Boundary Lubrication: Issues at macro, micro and nano levels" on the 21st of October, 2011.
4. Dr. Bhaskar Majumdar, Scientist-E, Advanced Magnetics Group of DMRL of DRDO, Hyderabad gave an invited talk "Fe Based nano-crystalline soft magnetic materials-present status" on 23rd April, 2011.



**45. List the teaching methods adopted by the faculty for different programmes.**

Power point Presentations, black board Teaching, Lectures, Tutorials, Practicals, Telepresence teaching, inter active board teaching, coursera, edX, MIT open course ware, NPTEL, WebEx.

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- Skill Sets, Cross Campus Departmental Committee for Academics (CCDCA)
- Departmental level committee for academics (DCA)
- Operation of Class committees to know the specific needs of students and accordingly adopt them into classrooms
- Incorporating laboratory practicals, project components and assignments into as many courses as possible.
- Conducting Pre-placement Tests and Mock interviews for students to appear in placement in their final year of graduation.
- Encouragement and facilitation for students to enrol in laboratory oriented and design oriented project courses.
- Periodic review and feedback on all the programmes by a competent external review committee consisting of Senior Faculty members from reputed institutes like IITs and reputed industrial organization like L&T.
- Encouragement to students opting to participate in internship in industrial organizations and reputed universities abroad during the summer vacation.
- Collection, analysis and utilization of Post placement Feedback from industrial organizations.

**47. Highlight the participation of students and faculty in extension activities.**

**Social and Environmental Activities:** There are many social organizations actively working on campus like NSS, NIRMAAN, YUVA, and Urja on campus.

- We have various on campus events like Cloth Donation, Tree Plantation, Blood donation, Campus
- Clean Up programmes.
- 5000 saplings were planted all over the campus as part of the Plantation programme which was conducted by HMRDA (Hyderabad Metro Railway Development Authority) in December 2011.

**Social and Environmental Activities: 2013**

There are many social organizations actively working on campus like NIRMAAN, YUVA (Youth under visionary action), HOPE and SIRI (society involved in reinventing India on campus).

We have various events on campus like Cloth Donation, Tree Plantation, Blood Donation, Campus Clean Up programs, Career Planning, Medical Camps, campus Tour for School Students.





**SCIO: Veda 1.0:** As part of our various activities, we conducted a fest in BITS-Pilani Hyderabad Campus on January 27th, 2013 for students of 8, 9 and 10th standards of the various schools of Hyderabad. The aim of the fest was to expose the students to a vast amount of information and content that will help them to make a well-assessed career choice. We also held competitions like essay writing, elocution, quizzes.

**Vaidya- medical camp:** A mega medical camp was conducted by the members and volunteers of SCIO in the premises of the primary school, Lakshmapur, a village in Shameerpet mandal in association with Apollo hospitals. There were more than 700 beneficiaries with free medicines and counselling provided to the villagers. We also provided facilities for free blood pressure, ECG and sugar check-up. The camp was inaugurated by local M.L.A, who was very proud and glad at our social service activities. Further, he promised us his immense support and wished us the best for our forthcoming activities. The medical camp was huge success, and the villagers were very much satisfied and happy with the services which were provided by the doctors.

**Campus Tour:**The students along with teachers of various schools in Hyderabad were invited to the campus. The day long visit around the picturesque campus with state-of-the-art facilities, labs and the educational departments proved to be inspirational and enlightened young minds. The extremely enthusiastic students were delighted to know about the different branches available in engineering and their future prospects.

**Veda 2.0:** A second edition of the fest was organised on November 17th, 2013 for the high-school students. The fest was aimed at describing various career choices available to them. The guests of the day were Shri K. Suresh Reddy (Former Speaker, AP State Legislative Assembly), Dr. G Satheesh Reddy, (Director, Research Centre Imarat (RCI)); Mr. K. Prabhakar Reddy (IAS-Former Secretary to the Chief Minister, Andhra Pradesh), Mr. Venkat Reddy (Retd. IPS Officer), Dr.Pradeep Patalay (General Practitioner), Dr.P.K.Thiruvikraman and Mr. Sivarama Krishna Kodali (Faculty, BITS-Pilani Hyderabad Campus).

**CRPF Event:** We had a counselling stall at CRPF National Exhibition held on the days of 29th and 30th December 2013. We were able to extend our help to nearly 300 student and parents.

**Nirmaan: SAP (School adoption Program):**

Focusing on the quality of education offered at the Government schools, our project also aims at bridging the huge void created by the lack of English language skills to the kids there. We adopted 4 Govt. Schools near our campus.

As a result of the constant efforts that we have put in and the continuous support given by the Microsemi Corporate for developing the primary school in Malkaram Village, the School Adoption

Program-Malkaram, in collaboration with Microsemi corporate bagged second prize "For Innovative & Path breaking initiatives in the areas of Community Development &



Environment Protection by SME member companies".

#### **Livelihood Opportunities:**

- Empowering women and providing an alternate means of livelihood to the financially backward, our livelihood projects in the village target 53 women. We trained 50 women in skills like tailoring, candle making, interior design.
- SAAKAR is a candle making project initiated by the livelihood operations team in October 2012 which aims at creating employment opportunities to the rural women. The women were taught candle Annual Report 2012 BITS Pilani, Hyderabad Campus B3-62 making techniques by a professional and they were given the raw materials to proceed further under the guidance of the student volunteers. The later stage involved the marketing of their candles by the volunteers in various schools and townships across Hyderabad and also in our campus. We invested around 38,000 in this project and it made huge profits of around 20,000. With more than 50% of our investment as profits, we just made Saakar bigger and better.

#### **Community Development:**

- The team looks after various needs of the community in areas of health, hygiene, awareness and other infrastructural lacks. We have conducted various medical camps and have spread awareness on sanitation and the like.
- As an effort of contributing to the greenery of the nearby villages, we organized Tree plantation drives in Malkaram and Upparpally. Around 50 Neem saplings were planted in this event. To ensure that the students have enough knowledge on tree plantation and their maintenance, the necessity of roots and their role in absorption of nutrients was explained. Then the students were allowed to plant the saplings under the guidance of the volunteers. Yet another successfully conducted awareness and activity campaign came to an end on a happy and responsible note.
- Ignite- All round Education Project It is an education project aimed at providing value-based education to the under-privileged. Extending from schools, orphanages to a cluster of houses we were able to reach out to kids of different backgrounds and
- bridge the quality gap in education by adding a more practical component to it. We are able to reach 750 under privileged students in an academic year.

#### **National Service Scheme (NSS):**

- Three units of National Service Scheme are functional in BITS-Pilani, Hyderabad Campus (BPHC). Currently there are 300 volunteers consisting of 174 male and 126 female students. The Chairman of NSS team is the Director, Prof. V. S. Rao and Dr. Samuel Tharu, serves as the Programme Coordinator.
- Surveys conducted in month of August, Eight villages to know the problems faced by the people living in the villages.
- Two village camps conducted in Mallamguda village during the months of August and November-2013.



- Medical Camp, benefitting around 106 people.
- Tree Plantation drive of planting around 50 plants
- Marshal Arts workshop training 53 kids.
- Painting the Govt. School in the village.
- Drawing and Crafts competition.
- Mass Tree Plantation drive in the campus and the city, distributing over 350 plants.
- SAHARA, the cloth donation drive conducted in the end of semester.
- Organized Voter Registration drive in campus on 16th and 20th November successfully registering 523 voters.
- Organized Blood Donation drive during ATMOS-2013.
  - Villages adopted for literacy: 2 (Adraspalli, & Mallamguda at BITS Pilani, Hyderabad Campus) (150 volunteers)
  - Tree saplings planted: 1000 (BITS Pilani, Hyderabad Campus and Mallamguda) (150 volunteers)
  - Immunization camps conducted: 2 (BITS Pilani, Hyderabad Campus) (50 volunteers)
  - Blood donation camps conducted: 3 (250 units of blood was donated (350 volunteers)
  - Health Camps conducted: 2 (Fluorosis and General checkup at Pothayapalli and Adraspalli) (85 volunteers)
  - PEARL '13: Carbon footprint free annual cultural fest and Street Lights donated to Village Lakshmapur.
  - Banning of plastic carry bags at BITS Pilani, Hyderabad Campus: From 01.03.2013
  - Annual Report 2012 BITS Pilani, Hyderabad Campus B3-63
  - International Women's day was celebrated on March 08, 2013 at BITS Pilani, Hyderabad Campus
  - Earth Hour was held at BITS Pilani, Hyderabad Campus on March 2013.
  - Independence Day celebrations in coordination with Community Welfare Division: 15.08.2013
  - Orientation and review meeting for NSS volunteers
  - Gandhi Jayanthi celebrations in coordination with Community Welfare Division: 02.10.2013
  - SAHARA – Initiative to collect old clothes & stationery: 11-12.12.2013

#### **48. Give details of “beyond syllabus scholarly activities” of the department.**

As part of curriculum requirement students doing various courses are encouraged to execute a project, give presentations, seminars, write review papers using published works, conduct some experiments, participate in Robotic club, SAE and ISHRAE activities to gain additional knowledge.

As part of SAE activities the Department students have been extensively participating competitions conducted by SAE-India including BAJA All Terrain Vehicle, goKart design



and fabrication competition.

As part of the Robotics Club Activities, students are participating in competitions in internal Assimilation of Technically Motivated Souls (ATMOS) as well as outside competitions. The student community organises ATMOS (technical Festival), ARENA (Sports Festival), VerbaMax (literary Festival) and PEARL (Cultural Festival) for various institutions across India in which technical and extra-curricular competitions are conducted.

As part of Mechanical Engineering Students' Association (MESA), various guest lectures are being arranged and the Campus level technical magazine 'Spark Plug' is published annually with contribution from both students and faculty members. ISHRAE Students Chapter has started functioning in 2015 and various activities such as quiz competitions, student seminars, expert lectures etc. are planned for the benefit of the students community.

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL**

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

Department Faculty have supported the pioneering effort of establishing a **MEMS CLEAN ROOM at a Cost of INR 1.5 Crore** for fabrication of Micro-machines. It has been entirely funded by the organization Hemair Systems India Pvt. Ltd.

The department actively participated in starting of the interdisciplinary minor programme in Materials Science and Engineering.

The department faculty member, Prof. S.P. Regalla has started research in the collaborating areas between mechanical engineering and medicine by tie-up with SHARE INDIA/MEDICITI, which is a leading medical institute and hospital in Hyderabad and University of Southern California.

**Solar Cooker:** As part of the MoU, a miniature Heliostat based solar thermal system was designed, fabricated, field tested to meet the energy needs for "community cooking" through solar energy. The equipment's design found to be an attractive option. The results obtained through the entire study was presented in the prestigious 12th International Conference of Sustainable Energy Technologies (SET2013) conducted at The Hong Kong Polytechnic University during , 26th– 29th August 2013.



**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths:</b> Highly qualified and experienced faculty members in some of the current research areas of interest to the world including advanced manufacturing processes, nanomaterials, CFD, renewable energy, product design and 3D printing and novel metal working lubrication technologies</p> <p>The department has some very good and state-of-the-art laboratories to support teaching and research. 73% of the department faculty members have Ph.D. degree and 69% of the faculty members of the department have Ph.D students.</p> <p>The department faculty members and students have good industry engagement through extensive participation in Practice School, WILP, Industry Immersion and Industrial visits.</p>	<p><b>Opportunities:</b> The Hyderabad Campus being centrally located in proximity to industrial organizations, the department is poised to further deepen the industry engagement. This can help establish Centres of Excellence in the department and thus benefit both faculties and students.</p> <p>Also, the department faculty can tie-up with the Scientists and faculty members of reputed research organizations (DRDO, ARCI, DMRL etc.) and reputed institutes (IIT, ISB etc.) and undertake research in interdisciplinary areas.</p> <p>Department will organize 2 to 3 invited talks per year by eminent personalities from reputed universities and industrial organizations to strengthen practice based teaching and research.</p>
<p><b>Weaknesses:</b> The department has greater potential to attract doctoral students than the current number of research scholars existing in the department. So the department has to proactively project their potential and attract more Ph.D scholars. Similarly, the research funding level and Industry Engagement need to be further strengthened</p>	<p><b>Challenges:</b></p> <p>Despite having great potential in the department faculty to guide, there is a paucity of good quality of research scholars.</p> <p>Availability of high quality faculty members with teaching and research potential is not adequate</p>

**52. Future plans of the department. .**

Programmes:

**Certificate Programmes (8-16 weeks duration each)**

Advanced manufacturing processes, Advanced materials, Robotics, Mechatronics, Tribology and condition monitoring, CFD, Renewable energy and energy management, HVAC systems design

**First Degree Programmes**

Materials Science and Engineering (in collaboration with Chemical Engg. , Physics and Chemistry Departments)



### **Higher Degree Programmes**

- M.E. in Materials Science and Engineering (in collaboration with Chemical Engg. , Physics and Chemistry Departments)
- M.E. in Manufacturing Engineering
- M.E. in CAD/CAM
- M.E. in Energy Engineering

### **Minor Programmes**

- Minor in Automobile Engineering
- Minor in Aerospace Engg.
- Minor in Sustainable Energy Technologies
- Minor in Medical Device Design and Manufacturing
- Minor in Composite materials and design
- Minor in LASER Engineering

### **Laboratory Facilities:**

#### **a. Teaching laboratory facilities**

- Composite materials lab
- LASER Engineering Lab
- Bio-mechanics Lab
- Condition Monitoring Lab
- Solar Energy Lab
- Micro manufacturing Lab

#### **b. Research Lab facilities/Centres of Research Excellence**

- Nanomaterials research Lab
- Multi-node high performance computational facility Lab
- Faculty Recruitment:
- In a period of next 5 years, the department would like to recruit adequate number of faculty members in order to achieve comfortable student faculty ratio, 1:12.
- Growth in Research Scholars intake:
- In a period of next 5 years, the department would like to admit more number of research scholars per year.

### **Deeper Industry Engagement:**

- Department would like to contribute to the education of working professionals through various new Certificate Programmes.
- Extensive participation of department faculty in the institute's industry immersion programme, PS-I, PS-II and WILP.
- Establishment of Centres of Excellence in collaboration with industrial organizations.

### **53. Any other information regarding your department which you would like to include.**

Several senior faculty members of the department are contributing to the academic administration activities of the Institute.



## HYDERABAD Campus: Evaluative Report of the Department PHARMACY

1. **Name of the Department:** Department of Pharmacy
2. **Year of establishment of the Department:** 2008
3. **Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
  - B.Pharm (Hons.)
  - M.Pharm
  - M.Pharm with specialization in Pharmaceutics
  - M.Pharm with specialization in Pharmaceutical Chemistry
  - Ph.D. (in all subareas of Pharmacy)
5. **Interdisciplinary programmes and departments involved**

Name of Programme	Departments Involved
M. Tech Pharmaceutical Operations and Management (Lupin, Mumbai)	Management, Economics and Finance, Mechanical Engineering
M. Tech Pharmaceutical Operations and Management(Wockhardt, Mumbai)	Management, Economics and Finance, Mechanical Engineering
M. Tech Pharmaceutical Operations and Management (Cipla, Mumbai)	Management, Economics and Finance, Mechanical Engineering

6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**  
Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.
7. **Details of programmes discontinued, if any, with reasons: NIL**
8. **Examination System:** Semester Choice Based Credit System
9. **Participation of the department in the courses offered by other departments**  
TA C 211 Chemistry (Measurement Techniques I)
10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others). (Refer Support document for calculation)**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	Note**	02	02
Associate Professors		03	03
Asst. Professors		05	05



Others		Nil	Nil

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Prof. D. Sriram	Ph.D.	Professor	Medicinal Chemistry	15	3 awarded 15 ongoing
Prof. P. Yogeewari	Ph.D.	Professor	Medicinal Chemistry	14	3 awarded 14 Ongoing
Prof. Shrikant Charde	Ph.D.	Associate Professor	Pharmaceutics	14	1 awarded 3 Ongoing
Prof. Punna Rao Ravi	Ph.D.	Associate Professor	Pharmaceutics	13	2 awarded 4 ongoing
Prof. Sajeli Begum	Ph.D.	Associate Professor	Pharmaceutical Chemistry (Natural Products)	10	4 ongoing
Dr. Vamsi Venuganti	Ph.D.	Assistant Professor	Pharmaceutics	5	4 ongoing
Dr. Swati Biswas	Ph.D.	Assistant Professor	Pharmaceutics	11	4 (ongoing)
Dr. Balaram Ghosh	Ph.D.	Assistant Professor	Medicinal Chemistry	11	1 (ongoing)
Dr. Onkar Kulkarni	Ph.D.	Assistant Professor	Pharmacology	8	
Dr. Arthi Dhar	Ph.D.	Assistant Professor	Pharmacology	8	1 (ongoing)

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors: NIL**

**13. Percentage of classes taken by temporary faculty – programme-wise information: NIL**

**14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)**

- B.Pharm (Hons.): 6:1
- M.Pharm.: 4:1
- M.Pharm. (Pharmaceutics): 4:1
- M.Pharm. (Pharmaceutical Chemistry): 4:1





**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Staff	Filled (includes offer letters given)	Actual number
Technical Staff	03	03
Administrative Staff	02	02
Others	Nil	Nil

**16. Research thrust areas as recognized by major funding agencies**

1. Pharmaceutics and Pharmacokinetics
2. Pharmaceutical Chemistry, Natural Drugs and Phyto-Chemistry
3. Pharmacology and Toxicology

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Investigation on structure activity relationship of the quinolone antibacterial against mycobacteria	Prof. D Sriram	UGC, Delhi	New 1000000	2008-2010
2	Design and synthesis of newer gaba analogues for treating CNS Disorders	Prof. Yogeeswari P	UGC, Delhi	New 835413	2008-2010
3	Isocitrate lyase Enzyme as Target in Persistent Mycobacterium tuberculosis Infection: Synthesis of 2-Arylthiazolidine-4-carboxylic acid and 5-Nitro-2-furoric acid Derivatives and its Antimycobacterial Evaluation	Prof. D Sriram	UGC, Delhi	New 1021800	2009-2012
4	Quality Control studies and standardization of safflower petals of different Indian cultivars as per World Health Organisation (WHO) requirement	Prof.Sajeli Begum	UGC, Delhi	New 944800	2011-2014



5	Design, pharmacokinetic and pharmacodynamic evaluation of nanocarriers for selective estrogen receptor modulators (SERMs) delivery in the effective treatment of post-menopausal osteoporosis.	Prof.Punna Rao	UGC, Delhi	New	783000	2011-2014
6	Structure based rational design and synthesis of mycobacterium tuberculosis pantothenate synthetase inhibitors	Prof. D Sriram	DST, Delhi	New	2380000	2010-2013
7	Development, synthesis and testing of novel HIV drugs	Prof. D Sriram	DST, Delhi	New	3184500	2011-2014
8	Drug discovery of inhibitors of the Protease of Peripheral Macrophages and Microglial cells in spinal cord for the treatment of neuropathic pain	Prof. P Yogeeswari	DST, Delhi	New	3978300	2012-2015
9	Transcutaneous delivery of macromolecules using layer-by-layer assembly to treat skin conditions	Dr. Vamsi Krishna Venuganti	DST, Delhi	New	2300000	2012-2015
10	Design and Synthesis of New Inhibitors of mtb GlmU by modeling & high throughput docking	Prof. D Sriram	CSIR, Delhi	New	3170000	2010-2013
11	Development of Novel DNA Gyrase Inhibitors Against Mycobacterium tuberculosis and other Non-tubercular Mycobacterial Infections	Prof. D Sriram	CSIR, Delhi	New	1676000	2010-2013
12	Design and synthesis of pharmacophoric hybrids as potential leads for the treatment of neuropathic pain	Prof. P Yogeeswari	CSIR, Delhi	New	2028000	2012-2015
13	Investigation of Natural Coumarinolignans and Their Newer Synthetic Analogs as Cyclooxygenase (COX-2) and Tumor necrosis factor (TNF- $\alpha$ ) inhibitory agents in Rheumatoid Arthritis	Dr.Sajeli Begum	CSIR, Delhi	New	2102000	2012-2015
14	Development of Newer Isoniazid Derivatives for the Treatment of Tuberculosis and Multi-drug Resistant Tuberculosis	Prof. D Sriram	ICMR, Delhi	New	1712474	2011-2014
15	Design and Synthesis inhibitors of various enzymes of mycobacterium tuberculosis like DNA, GYRASE and TOPOISOMERASE - 1	Prof. D Sriram	DBT, Delhi	New	3956000	2008-2012
16	Discovery of Novel Modulators of NAD(+) Dependent Protein Deacetylase SIRT 1 for the treatment of Various Human Disorders	Prof P. Yogeeswari	DBT, Delhi	New	2977000	2011-2014



17	Structure-guided design of novel non-peptidic noncovalent selective inhibitors of the spinal micgorglial cathepsins for the treatment of neuropathic pain	Prof P. Yogeeswari	DBT, Delhi	New	3112000	2011-2014
18	Structure-guided Design of New Antibacterial Agents against Dormant Mycobacterium Tuberculosis	Prof.D.Sriram	DBT, Delhi	New	9064000	2010-2014
19	Structure Based Rational Design and Synthesis of Inhibitors for Various Enzymes of Mycobacterium tuberculosis	Prof. D Sriram	Aditya Group	Birla	1800000	2011-2014
20	Development of novel antitubercular drugs	Prof. D Sriram	ASTRA ZENECA		1111111	2010-2013
21	Development of Novel anti-inflammatory agents.	Prof. P. Yogeeswari	Incozen Therapeutics Ltd., Hyderabad		2100000	2011-2014
22	Design of Modified Release Multi-Unit Particulate Delivery Systems for Fixed –Dose Combination of Artesunate and Amodiaquine for Pediatrics.	Prof. Shrikant Charde	UGC		1025000	2011-2014

#### Ongoing projects:

SL No	Project Name	Principal Investigator	Funding Agency		Sanctioned Amount (Lakhs)	Duration
1	Development and analysis of novel inhibitors against M. tuberculosis GlmU.	Prof.D.Sriram	CSIR, Delhi	New	3956820	2012-2015
2	Structure based rational design and synthesis of inhibitors for various Enzymes of HIV	Prof.D.Sriram	DBT, Delhi	New	5617400	2012-2015
3	Strategies against antibiotic resistance in Mycobacterium tuberculosis and Pseudomonas aeruginosa : new drugs for old targets and old drugs for new targets	Prof. D.Sriram	DBT, Delhi	New	6192000	2014-2017
4	Non -Invasive Delivery of siRNA to treat Melanoma	Dr. Vamsi Krishna Venuganti	DBT, Delhi	New	2284800	2014-2017



5	Enzymes from Purine and Pyrimidine Biosynthetic pathway as targets for the development of Mycobacterium tuberculosis drugs	Prof. P. Yogeewari	DBT, New Delhi	4822990	2014-2017
6	Cell Penetrating Peptide Octa-Arginine anchored, Multifunctional poly(amidoamine)Dendrimer to Promote delivery of chemotherapeutics in cancer	Dr. Swati Biswas	DBT, New Delhi	3703695	2014-2017
7	Design, Characterization and Pharmacokinetic Evaluation of Nanocarriers for Antiretroviral Drug Delivery in the Effective Treatment of HIV/AIDS	Prof. Punna Rao	DST, New Delhi	2310000	2012-2015
8	Development of new antiepileptic leads to suppress hippocampal leads to suppress hippocampal epileptic seizures	Prof. P. Yogeewari	DST, New Delhi	774000	2012-2015
9	Transcutaneous delivery of liposomesirna complex to treat skin cancer	Dr. Vamsi Krishna Venuganti	DST, New Delhi	2926000	2013-2016
10	Development of Novel Compounds for the Treatment of Neural Complications of Diabetes	Prof. P. Yogeewari	DST, New Delhi	604000	2014-2017
11	D - a-Tocopherol conjugated co-polymer based micelles for improved delivery of chemotherapeutics with reversal of multiple drug resistance	Dr. Swati Biswas	DST, New Delhi	2240000	2014-2017
12	Structured-based Design of Orphan Nuclear Receptor Modulators to treat Diabetes and its complications by targeting RORalpha and Rev-erbalpha	Prof. P. Yogeewari	ICMR, New Delhi	2161600	2014-2016
13	Studies on Cell Lines as Model for Predicting In Vitro Buccal Permeation of Various Classes of Drugs and its Co-relation with In Vivo Data.	Prof. Shrikant Yashwant Charde	DST New Delhi	2400000	2012-2015
14	Daewoong Pharmaceutical Co., Ltd	Prof. Shrikant Yashwant Charde & Prof. Punna Rao Ravi	Daewoong Pharmaceutical Co., Ltd, Hyderabad	527080	2014-2015



## 18. Inter-institutional collaborative projects and associated grants received

### a) National collaboration

SL No	Name of Investigator(s)	Collaborating Institute(s)	Sponsoring Agency
1	Prof D. Sriram	BITS Pilani, National Institute of Immunology & IIT Kanpur	CSIR – OSDD

### b) International collaboration

SL No	Name of Investigator(s)	Collaborating Institute(s)	Sponsoring Agency & Amount
1	Prof D. Sriram and Prof. P. Yogeewari	Karolinska Institute, Stockholm	DBT Indo Swedish Rs. 15256000
2	Prof D. Sriram and Prof. P. Yogeewari	Institute of Medical Biology Polish Academy of Sciences, Poland	DST Indo Polish Rs.1189000
3	Prof D. Sriram and Prof. P. Yogeewari	Federal University of Pará, Belém [Brazil] +University of KwaZulu-Natal Durban	DST India Brazil South Africa Rs. 3184000
4	Prof D. Sriram and Prof. P. Yogeewari	Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre, RS, Brazil	DBT Indo-Brazil Rs. 4822990
5	Prof D. Sriram and Prof. P. Yogeewari	Université Lille Nord de France Institut Pasteur de Lille	ICMR INSERM Indo French Rs.2161600
6	Prof D. Sriram and Prof. P. Yogeewari	Porto University, Portugal	DST Indo Portugal Rs. 604000
7	Prof D. Sriram and Prof. P. Yogeewari	Bogomoletz Institute of Physiology, Kiev, Ukraine	DST Indo Ukraine Rs.774000
8	Swati Biswas and Balaram Ghosh	Belarusian State University, Belarus	DST Indo belarus Rs.958000

## 19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Sponsoring Agency	Amount	Duration
DST under FIST Scheme	67.00 Lakhs	December 2012- December 2017



**20. Research facility / centre with**

- state recognition: Not Applicable
- national recognition: DST-FIST Lab with sophisticated instruments sponsored by DST under FIST scheme. The instruments currently housed are CHN Analyzer, Particle Size Analyzer, Texture Analyzer and Microplate reader.
- international recognition: Not Applicable

**21. Special research laboratories sponsored by / created by industry or corporate bodies**

Nil

**22. Publications:**

SI No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	172
2	Monographs	03
3	Chapters in Books	06
4	Edited Books	00
5	Books with ISBN with details of publishers	00
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	172
7	Citation Index – range / average	Range: 180-6870 Average: 1560
8	SNIP Average (for the journals we could get details)	Approximately 0.80
9	SJR Average (for the journals we could get details)	Approximately 0.75
10	Impact Factor – range / average	Range: 0-15.03 Average: Approximately 2.55
11	h-index	Average: 16

**Details of the publications as per the number give above (Give details in the last five years)**

SL No	Authors	Title of Publications	Details of Journal	National/international	Year
1	R. S. Kumar, S. Perumal, D. Banerjee, P. Yogeewari, D. Sriram.	Novel three-component domino reactions of ketones, isatin and amino acids: Synthesis and discovery of antimycobacterial activity of highly functionalised novel dispiropyrrolidines.	Eur. J. Med. Chem. 45, 411-422	International	2010
2	D. Banerjee, P. Yogeewari, P. Bhat, D. Sriram.	Synthesis, in-vitro evaluation and computational studies of novel isatinyl derivatives for their activity against HIV-TB co-infection.	Int. J. Drug Des. & Discov.,	International	2010



3	A. Semwal, P. Yogeewari, J. V. Ragavendran, D. Sriram, J. Stables	Discovery of Isatinimino Derivatives as New Leads for Neuropathic Pain Treatment: An Isomeric Modification Approach.	Int. J. Drug Des. & Discov., 1, 65-80	International	2010
4	R. S. Kumar, S. Perumal, K. A. Shetty, P. Yogeewari, D. Sriram.	1,3-Dipolar cycloaddition of C-aryl-N-phenylnitrones to (R)-1-(1-phenylethyl)-3-[(E)-arylmethylidene]tetrahydro-4(1H)-pyridinones: Synthesis and antimycobacterial evaluation of enantiomerically pure spiroisoxazolidines.	Eur. J. Med. Chem. 45, 124-133	international	2010
5	D. Sriram, P. Yogeewari, M. Dinakaran, D. Banerjee, P. Bhat, S. Gadhwal	Discovery of Newer Antitubercular 2,10-Dihydro-4aH-chromeno[3,2-c]pyridin-3-yl Derivatives.	Eur. J. Med. Chem. 45, 120-123	international	2010
6	S. V. Karthikeyan, B. D. Bala, V. P. A. Raja, S. Perumal, P. Yogeewari, D. Sriram	A highly atom economic, chemo-, regio- and stereoselective synthesis and evaluation of spiro-pyrrolothiazoles as antitubercular agents	Bioorg. Med. Chem. Lett., 20, 350-353	international	2010
7	D. Sriram, P. Yogeewari, P. Senthilkumar, S. Dewakar.	5-Nitrothiazolylthiosemicarbazones: Synthesis and antimycobacterial evaluation against tubercular and non-tubercular mycobacterial species	J. Enzyme Inhib. Med. Chem.,	international	2010
8	K. Balamurugan, V. Jeyachandran, S. Perumal, T. H. Manjashetty, P. Yogeewari, D. Sriram	A microwave-assisted, facile, regioselective Friedländer synthesis and antitubercular evaluation of 2,9-diaryl-2,3-dihydrothieno-[3,2-b]quinolines	Eur. J. Med. Chem. 45, 682-688	international	2010
9	P. Yogeewari, J. V. Ragavendran, D. Sriram, A. Priyanka, S. Ganguly, A. Sunil Kumar Reddy, Arvind	Effectiveness of antiepileptic GABA analogues for the treatment of neuropathic pain	Pharmacologyonline 1, 575-590	international	2010



	Semwal				
10	D. Sriram, P. Yogeewari, P. Senthilkumar, D. Sangaraju, R. Nelli, D. Banerjee, P. Bhat, T.H. Manjashetty	Synthesis and antimycobacterial evaluation of novel phthalazin-4-ylacetamides against log- and starved phase cultures	Chem. Biol. & Drug Design, 75, 381-391	international	2010
11	R. Manikannan, S. Muthusubramanian, P. Yogeewari and D. Sriram	Selective one-pot multicomponent synthesis and antitubercular evaluation of 5-(aryl/cyclohexylsulfanyl)-2-alkoxy-4,6-diarylnicotinonitriles	Bioorg. Med. Chem. Lett., 20, 3352-3355	international	2010
12	R. S. Kumar, S. M. Rajesh, S. Perumal, D. Banerjee, P. Yogeewari and D. Sriram	A facile synthesis and discovery of highly functionalized tetrahydropyridines and pyridines as antimycobacterial agents	Chem. Pharm. Bull. 58, 602-610	international	2010
13	D. Sriram, R. V. Devakaram, M. Dinakaran, P. Yogeewari	Aromatic Amino Analogues of Artemisinin: Synthesis and In-vivo Antimalarial Activity	Med. Chem. Res. 19, 524-532	international	2010
14	D. Sriram, P. Yogeewari, D. R. K. Vyas, P. Senthilkumar, P. Bhat, M. Srividya.	5-Nitro-2-furoic acid hydrazones: Design, synthesis and in-vitro antimycobacterial evaluation against log and starved phase cultures	Bioorg. Med. Chem. Lett. 20, 4313-4316	international	2010
15	P. Yogeewaria, A. Semwal, D. Sriram, J.V. Ragavendran, N. Sreevatsan, S. Monika	Antiallodynic and antihyperalgesic activities of anticonvulsant gaba derivatives in both sciatic nerve and spinal nerve ligation models of neuropathic pain	Pharmacologyonline, 2, 634-647	international	2010
16	R.S. Kumar, S.M. Rajesh, S. Perumal, P. Yogeewari, D. Sriram	1,3-Dipolar cycloaddition of nitrile oxides to (R)-1-(1-phenylethyl)-3,5-bis[(E)-arylmethylidene]tetrahydro-4(1H)-pyridinones: Synthesis and antimycobacterial evaluation of novel	Tetrahedron Asymmetry, 21, 1315-1327	international	2010





		enantiomerically pure di- and trispiroheterocycles			
17	R. Manikannan, S. Muthusubramanian, P. Yogeewari, and D. Sriram	Pyrazole derivatives from azines of substituted phenacyl aryl/cyclohexyl sulfides and their antimycobacterial activity	Bioorg. Med. Chem. Lett. 20, 6920-6924	international	2010
18	P. Kumar, B. Narasimhan, D. Sharma, P. Yogeewari, D. Sriram	Synthesis and antitubercular activities of substituted benzoic acid N'-(substituted benzylidene/furan-2-ylmethylene)-N-(pyridine-3-carbonyl)-hydrazides	Eur. J. Med. Chem. 45, 6085-6089	international	2010
19	D. Sriram, P. Yogeewari, P. Senthilkumar, G. Naidu	5-Nitro-2,6-dioxohexahydro-4-pyrimidinecarboxamides: Synthesis and antimycobacterial activities	. Enz. Inhib. Med. Chem., 25, 765-772	international	2010
20	P. Prasanna, K. Balamurugan, S. Perumal, P. Yogeewari, D. Sriram	A regio- and stereoselective 1,3-dipolar cycloaddition for the synthesis of novel spiropyrrolothiazolyloxindoles and their antitubercular evaluation	Eur. J. Med. Chem. 45, 5653-5661	international	2010
21	S. Muthusaravanan, S. Perumal, P. Yogeewari, D. Sriram	Facile three-component domino reactions in the regio-selective synthesis and antimycobacterial evaluation of novel indolizines and pyrrolo[2,1-a]isoquinolines	Tetrahedron Letters 51, 6439-6443	international	2010
22	S. U. Maheswari, K. Balamurugan, S. Perumal, P. Yogeewari, D. Sriram	A facile 1,3-dipolar cycloaddition of azomethine ylides to 2-arylidene-1,3-indanediones: synthesis of dispiro-oxindolylpyrrolothiazoles and their antimycobacterial evaluation	Bioorg. Med. Chem. Lett. 20, 7278-7282	international	2010
23	B. China Raju, R. Nageswara Rao, P. Suman, P. Yogeewari, D. Sriram, Thokhir Basha Shaik, Shasi Vardhan Kalivendi	Synthesis, structure–activity relationship of novel substituted 4H-chromen-1,2,3,4-tetrahydropyrimidine-5-carboxylates as potential anti-mycobacterial and anticancer agents	Bioorg. Med. Chem. Lett., 21, 2855-2859	international	2011



24	D. Sriram, D. Banerjee, P. Yogeewari, P. Bhat, A. Thomas	Novel isatinyl derivatives as potential molecule in the crusade against HIV-TB co-infection.	Eur. J. Med. Chem. 46, 106-121	international	2011
25	M. Muthukrishnan, M. Mujahid, P. Yogeewari, D. Sriram	Syntheses and biological evaluation of new triazole-spirochromone conjugates as inhibitors of Mycobacterium tuberculosis	Tetrahedron Letters 52, 2387-2389	international	2011
26	S. Kantevari, S.R. Patpi, B. Sridhar, P. Yogeewari, D. Sriram	Synthesis and antitubercular evaluation of novel substituted aryl and thiophenyl tethered dihydro-6H-quinolin-5-ones	Bioorg. Med. Chem. Lett. 21, 1214-1217	international	2011
27	T.H. Manjashetty, P. Yogeewari, D. Sriram	Microwave assisted one-pot synthesis of highly potent novel isoniazid analogues	Bioorg. Med. Chem. Lett., 21, 2125-2128	international	2011
28	Rajesh SM, Kumar RS, Libertsen LA, Perumal S, Yogeewari P, Sriram D	A green expedient synthesis of pyridopyrimidine-2-thiones and their antitubercular activity	Bioorg. Med. Chem. Lett., 21, 3012-3016	international	2011
29	V.P. Raja, S. Perumal, P. Yogeewari, D. Sriram	Synthesis and antimycobacterial activity of highly functionalized tetrahydro-4(1H)-pyridinones	Bioorg. Med. Chem. Lett. 21, 3881-3884	international	2011
30	R. Ranjith Kumar, S. Perumal, JC, Menéndez, P. Yogeewari, D. Sriram	Antimycobacterial activity of novel 1,2,4-oxadiazole-pyranopyridine/chromene hybrids generated by chemoselective 1,3-dipolar cycloadditions of nitrile oxides	Bioorg. Med. Chem. 19, 3444-3450	international	2011
31	P. Yogeewari, N. Menon, A. Semwal, M. Arjun, D. Sriram	Discovery of molecules for the treatment of neuropathic pain: Synthesis, antiallodynic and antihyperalgesic activities of 5-(4-nitrophenyl)furoic-2-acid hydrazones	Eur. J. Med. Chem. 46, 2964-2970	international	2011
32	G.Mugunthan, K. Ramakrishna, D. Sriram, P. Yogeewari, R.K.P. Kartha.	Synthesis and screening of (E)-1-( $\beta$ -d-galactopyranosyl)-4-(aryl)but-3-ene-2-one against Mycobacterium tuberculosis	Bioorg. Med. Chem. Lett. 21, 3947-3950	international	2011



33	S. Kantevari, T. Yempala, P. Yogeewari, D. Sriram, B. Sridhar	Synthesis and antitubercular evaluation of amidoalkyl dibenzofuranols and 1H-benzo[2,3]benzofuro[4,5-e][1,3]oxazin-3(2H)-ones	Bioorg. Med. Chem. Lett. 21, 4316-4319	international	201 1
34	S. M. Rajesh, S. Perumal, J. C. Menéndez, P. Yogeewari and D.Sriram	Antimycobacterial activity of spirooxindolo-pyrrolidine, pyrrolizine and pyrrolothiazole hybrids obtained by a three-component regio- and stereoselective 1,3-dipolar cycloaddition	Med. Chem. Commun., 2, 626-630	international	201 1
35	K. Srinivas, S.R. Patpi, D. Addla, S.R. Putapatri, B. Sridhar, P. Yogeewari, D. Sriram	Facile Diversity-Oriented Synthesis and Antitubercular Evaluation of Novel Aryl and Heteroaryl Tethered Pyridines and Dihydro-6H-quinolin-5-ones derived via Variants of the Bohlmann-Rahtz Reaction	ACS Comb Sci. 13, 427-435	international	201 1
36	G. Mugunthan, D. Sriram, P. Yogeewari, R.K.P. Kartha	Synthesis and biological evaluation of sugar-derived chiral nitroimidazoles as potential antimycobacterial agents	Carbohyd. Res. 346, 1760-1766	international	201 1
37	S. Kantevari, T. Yempala, G. Surineni, B. Sridhar, P. Yogeewari, D. Sriram	Synthesis and antitubercular evaluation of novel dibenzo[b,d]furan and 9-methyl-9H-carbazole derived hexahydro-2H-pyrano[3,2-c]quinolines via Povarov reaction	Eur. J. Med. Chem. 46, 4827-4833	international	201 1
38	P. Gunasekaran, S. Perumal, P. Yogeewari, D. Sriram	A facile four-component sequential protocol in the expedient synthesis of novel 2-aryl-5-methyl-2,3-dihydro-1H-3-pyrazolones in water and their antitubercular evaluation	Eur. J. Med. Chem. 46, 4530-4536	international	201 1
39	D. Sriram, P. Yogeewari, S. Methuku, D.R. Vyas, P. Senthilkumar, M. Alvala, V.U. Jeankumar	Synthesis of various 3-nitropropionamides as Mycobacterium tuberculosis isocitrate lyase inhibitor	Bioorg. Med. Chem. Lett. 21, 5149-5154	international	201 1



40	S. Chitra, N. Paul, S. Muthusubramanian, P. Manisankar, P. Yogeewari, D. Sriram.	Synthesis of 3-heteroarylthioquinoline derivatives and their in vitro antituberculosis and cytotoxicity studies	Eur. J. Med. Chem. 46, 4897-4903	international	2011
41	G. Mugunthan, D. Sriram, P. Yogeewari, K.P. Kartha	Synthetic analogues of mycobacterial arabinogalactan linkage-disaccharide part II: synthesis and preliminary screening of lipophilic O-alkyl glycosides	Carbohydr. Res. 346, 2401-2405	international	2011
42	S. Chitra, N. Paul, S. Muthusubramanian, P. Manisankar, P. Yogeewari, D. Sriram	A facile synthesis of carbocycle-fused mono and bis-1,2,3-selenadiazoles and their antimicrobial and antimycobacterial studies	Eur. J. Med. Chem. 46, 5465-5472	international	2011
43	P. Shanmugavelan, S. Nagarajan, M. Sathishkumar, A. Ponnuswamy, P. Yogeewari, D. Sriram	Efficient synthesis and in vitro antitubercular activity of 1,2,3-triazoles as inhibitors of Mycobacterium tuberculosis	Bioorg. Med. Chem. Lett. 21, 7273-7276	international	2011
44	D. Sriram, P. Yogeewari, J.T. Patrisha, P. Senthilkumar, P. N. Kurre, and Y. R.Prasad	Exploring aryl thiazolidine carboxamides as a new class of antimycobacterials	Pharmacologyonline 1, 185-195	international	2011
45	D. Sharma, B. Narasimhan, P. Kumar, P. Yogeewari, D. Sriram	Synthesis, antimicrobial and antimycobacterial evaluation of [2-(substituted phenyl)-imidazol-1-yl]-pyridin-3-yl-methanones	J. Enz. Inhib. Med. Chem. 26, 720-727	international	2011
46	G. Mugunthan, K. Ramakrishna, D. Sriram, P. Yogeewari, R. K.P. Kartha.	Synthesis and screening of galactose-linked nitroimidazoles and triazoles against Mycobacterium tuberculosis	Eur. J. Med. Chem. 46, 4725-4732	international	2011



47	R. Narang, B. Narasimhan, S. Sharma, D. Sriram, P. Yogeewari, E. De Clercq, C. Pannecouque J. Balzarini	Nicotinic acid benzylidene/phenylethylidene hydrazides: synthesis, antimicrobial evaluation and QSAR studies	Let. Drug Des. Dis. 8, 733-749	international	2011
48	S.R. Malwal, D. Sriram, P. Yogeewari, V.B. Konkimalla, H. Chakrapani.	Design, synthesis, and evaluation of thiol-activated sources of sulfur dioxide (SO <sub>2</sub> ) as antimycobacterial agents	J. Med. Chem. 55, 553-557	international	2012
49	N. Paul, M. Murugavel, S. Muthusubramanian, D. Sriram	Camphorsulfonic acid catalysed facile tandem double Friedlander annulation protocol for the synthesis of phenoxy linked bisquinoline derivatives and discovery of antitubercular agents	Bioorg. Med. Chem. Lett., 22, 1643-1648	international	2012
50	D. Sriram, D. Banerjee, T. S. T. V. N. Varuna, M. Sankar, P. Yogeewari.	Antitubercular activities of novel diallyl/dibenzyl thiosemicarbazones endowed with high activity toward multi-drug resistant tuberculosis	Med. Chem. Res. 21, 810-815	international	2012
51	A. Mallika, B. Shubhmita, A. Ravi, V. U. Jeankumar, H.M. Thimmappa, P. Yogeewari, D. Sriram	Novel acridinedione derivatives: Design, synthesis, SIRT1 enzyme and tumor cell growth inhibition studies	Bioorg. Med. Chem. Lett. 22, 3256-3260	international	2012
52	.V. Ramani, A. Monika, V.L. Indira, G. Karyavardhi, J. Venkatesh, V.U. Jeankumar, T.H. Manjashetty, P. Yogeewari, D. Sriram	Synthesis of highly potent novel anti-tubercular isoniazid analogues with preliminary pharmacokinetic evaluation	Bioorg. Med. Chem. Lett. 22, 2764-2767	international	2012



53	S.R. Patpi, L. Pulipati, P. Yogeewari, D. Sriram, N. Jain, B. Sridhar, R. Murthy, A.T. Devi, S.V. Kalivendi, S. Kantevari	Design, Synthesis, and Structure-Activity Correlations of Novel Dibenzo[b,d]furan, Dibenzo[b,d]thiophene, and N-Methylcarbazole Clubbed 1,2,3-Triazoles as Potent Inhibitors of Mycobacterium tuberculosis	J. Med. Chem. 55, 3911-3922	international	201 2
54	S.R. Malwal, D. Sriram, P. Yogeewari, H. Chakrapani.	Synthesis and antimycobacterial activity of prodrugs of sulfur dioxide (SO <sub>2</sub> ).	Bioorg. Med. Chem. Lett. 22, 3603-3606	international	201 2
55	A.I. Almansour, R. Suresh Kumar, N. Arumugam, D. Sriram	A solvent free, four-component synthesis and 1,3-dipolar cycloaddition of 4(H)-pyrans with nitrile oxides: Synthesis and discovery of antimycobacterial activity of enantiomerically pure 1,2,4-oxadiazoles	Eur. J. Med. Chem. 53, 416-423	international	201 2
56	P. Yogeewari, S. K. Patel, I. V. Reddy, A. Semwal, M. Sharma, M. Gangadhar, M. S. Sai, D. Sriram	GABA derivatives for the treatment of epilepsy and neuropathic pain: A synthetic integration of GABA in 1, 2, 4-Triazolo-2H-one nucleus	Biomed. & Aging Pathol. 2, 31-40	international	201 2
57	M. Jeyachandran, P. Ramesh, D. Sriram, P. Senthilkumar, P. Yogeewari.	Synthesis and in vitro antitubercular activity of 4-aryl/alkylsulfonylmethylcoumarins as inhibitors of Mycobacterium tuberculosis	Bioorg. Med. Chem. Lett. 22, 4807-4809	international	201 2
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86	H.N. Nagesh, K.M. Naidu, D.H. Rao, J.P.S. Devi, D. Sriram, P. Yogeewari, K.V.C. Sekhar	Design, synthesis and evaluation of 6-(4-((substituted-1H-1,2,3-triazol-4-yl)methyl)piperazin-1-yl)phenanthridine analogues as antimycobacterial agents.	Bioorg. Med. Chem. Lett. 23, 6805-6810	international	2013



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96	H. N. Nagesh, N. Suresh, K. M. Naidu, B. Arun, J. P. Sridevi, D. Sriram, P Yogeewari, K. V. G. C. Sekhar	Synthesis and evaluation of anti-tubercular activity of 6-(4-substitutedpiperazin-1-yl) phenanthridine analogues.	Eur. J. Med. Chem. 74, 333-339	international	2014
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110	G. Samala, S.S. Kakan, R. Nallangi, P.B. Devi, J.P.S. Devi, S. Saxena, P. Yogeeswari, D. Sriram	Investigating structure-activity relationship and mechanism of action of antitubercular 1-(4-chlorophenyl)-4-(4-hydroxy-3-methoxy-5-nitrobenzylidene)pyrazolidine-3,5-dione [CD59]	Int. J. Mycobact. 3, 117-126	international	2014



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11 3	G. Samala, R. Nallangi, P.B. Devi, S. Saxena, R. Yadav, J.P.S. Devi, P. Yogeewari, D. Sriram.	Identification and development of 2-methylimidazo[1,2-a]pyridine-3-carboxamides as Mycobacterium tuberculosis pantothenate synthetase inhibitors.	Bioorg. Med. Chem. 22, 4223-4232	international	201 4
11 4	K.A. Bobesh, J. Renuka, V.U. Jeankumar, S.K. Shruti, J.P.S. Devi, P. Yogeewari, D. Sriram.	Extending the N-linked aminopiperidine class to the mycobacterial gyrase domain: Pharmacophore mapping from known antibacterial leads.	Eur. J. Med. Chem. 85, 593-604,	international	201 4
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11 7	J. Renuka, K.I. Reddy, K. Srihari, V.U. Jeankumar, M. Shravan, J.P.S. Devi, P. Yogeewari, K.S. Babu, D. Sriram	Design, synthesis, biological evaluation of substituted benzofurans as DNA gyraseB inhibitors of Mycobacterium tuberculosis	Bioorg. Med. Chem. 22, 4924-4934	international	201 4



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119	G.S. Pedgaonkar, J.P.S. Devi, V.U. Jeankumar, S. Saxena, P.B. Devi, J. Renuka, P. Yogeewari, D. Sriram	Development of 2-(4-oxoquinazolin-3(4H)-yl)acetamide derivatives as novel enoyl-acyl carrier protein reductase (InhA) inhibitors for the treatment of tuberculosis	Eur. J. Med. Chem, 86, 613-627	international	2014
120	P. Suman, R.N. Rao, B.C. Raju, D. Sriram, P.V. Koushik	Anti-mycobacterial, cytotoxic activities of Knoevenagel and (E)- $\alpha,\beta$ -unsaturated esters and ketones from 2-chloronicotinaldehydes	Med. Chem. Res. 23, 199-206	international	2014
121	K.M. Naidu, A. Suresh, J. Subbalakshmi, D.Sriram, P. Yogeewari, P. Raghavaiah, K.V.G.C. Sekhar	Design, synthesis and antimycobacterial activity of various 3-(4-(substitutedsulfonyl)piperazin-1-yl)benzo[d]isoxazole derivatives.	Eur. J. Med. Chem. 87, 71-78	international	2014
122	G.S. Pedgaonkar, J.P.S. Devi, V.U. Jeankumar, S. Saxena, P.B. Devi, J. Renuka, P. Yogeewari, D. Sriram	Development of benzo[d]oxazol-2(3H)-ones derivatives as novel inhibitors of Mycobacterium tuberculosis InhA	Bioorg. Med. Chem. 22, 6134–6145	international	2014
123	S. Saxena, G. Samala, J.P.S. Devi, P.B. Devi, P. Yogeewari, D. Sriram	Design and development of novel Mycobacterium tuberculosis alanine dehydrogenase inhibitors.	Eur. J. Med. Chem. 92, 401-414,	international	2014
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12 7	P. Shah, T.M. Dhameliya, R. Bansal, M. Nautiyal, D.N. Kommi, P.S. Jadhavar, J.P. S. Devi, P. Yogeeswari, D. Sriram, A.K. Chakraborti	N-Arylalkylbenzo[d]thiazole-2-carboxamides as anti-mycobacterial agents: design, new methods of synthesis and biological evaluation.	Med. Chem. Commun. 5, 1489-1495,	international	201 4
12 8	B.V. Kumar, N. Lakshmi, M.R. Kumar, G. Rambabu, T.H. Manjashetty, K.M. Arunasree, D. Sriram, K. Ramkumar, N. Neamati, R. Dayam, J.A. Sarma.	Design, synthesis and screening studies of potent thiazol-2-amine derivatives as fibroblast growth factor receptor 1 inhibitors.	Curr. Top. Med. Chem. 14, 2031-2041	international	201 4
12 9	S. Saxena, J. Renuka, V.U. Jeankumar, P. Yogeeswari, D. Sriram.	Mycobacterial DNA Gyrase Inhibitors: Ligand Based Pharmacophore Modelling and In Vitro Enzyme Inhibition Studies.	Curr. Top. Med. Chem. 14, 1990-2005	international	201 4
13 0	V. Vijayakumar, K. I. Reddy, A. Chuppala, K. S. Babu, M. Manisha, J. P.S. Devi, P. Yogeeswari, D. Sriram	General and an efficient synthesis of benzoxazol-2(3H)-ones: Evolution of its anti-cancer and anti-mycobacterial activities	RSC Adv., 4, 59594-59602	international	201 4
13 1	A. Jallapally, D. Addla, P. Yogeeswari, D. Sriram, S. Kantevari.	2-Butyl-4-chloroimidazole based substituted piperazine-thiosemicarbazone hybrids as potent inhibitors of	Bioorg. Med. Chem. Lett. 24, 5520-5524	international	201 4



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13 2	S. Haddad, S. Boudriga, F. Porzio, A. Soldera, M. Askri, D. Sriram, P. Yogeewari, M. Knorr, Y. Rousselin, M. Kubicki	Synthesis of novel dispiropyrrrolothiazoles by three-component 1,3-dipolar cycloaddition and evaluation of their antimycobacterial activity.	RSC Adv., 4, 59462-59471	international	201 4
13 3	I. Reddy, K. Srihari, J. Renuka, K. S. Sree, A. Chuppala, V. U. Jeankumar, J. P. S. Devi, K. S. Babu, P. Yogeewari, D. Sriram.	An efficient synthesis and biological screening of benzofuran and benzo[d]isothiazole derivatives for Mycobacterium tuberculosis DNA GyrB inhibition	Bioorg. Med. Chem., 22, 6552-6563	international	201 4
13 4	J. P. S. Devi, H. S. Anantaraju, P. Kulkarni, P. Yogeewari, D. Sriram.	Optimization and validation of Mycobacterium marinum-induced adult zebrafish model for evaluation of oral anti-tuberculosis drugs.	Int. J. Mycobact. 3, 259-267	international	201 4
13 5	S. Ganesh, C. Madhuri, J.P.S. Devi, R. Nallangi, P. Yogeewari, D. Sriram.	Synthesis and antitubercular evaluation of 2-iminothiazolidine-4-ones.	Eur. J. Chem. 5, 550-556,	international	201 4
13 6	P. B. Devi, S. Ganesh, J. P. S. Devi, S. Saxena, A. Mallika, E. G. Salina, D. Sriram, P. Yogeewari.	Structure-guided design of novel thiazolidine derivatives as Mycobacterium tuberculosis pantothenate synthetase inhibitors.	ChemMedChem. 9, 2538-2547	international	201 4
13 7	S. Saxena, J. Renuka, P. Yogeewari, D. Sriram.	Discovery of novel mycobacterial DNA gyrase B inhibitors: In-silico and in-vitro biological evaluation.	Mol. Informatics, 33, 597-609,	international	201 4
13 8	B.V.S.S. Kumar, D. Sriram, P. Yogeewari.	Recent trends in library design and virtual screening in Medicinal Chemistry and Drug Discovery	Curr. Top. Med. Chem. 14, 1865	international	201 4
13 9	B.V.S.S. Kumar, D. Sriram, P. Yogeewari.	Medicinal chemistry updates and discovery strategies on potential therapeutic targets	Curr. Top. Med. Chem. 14, 1939,	international	201 4



140	Punna Rao Ravi, Rahul Vats, Jagadeesh Balija and Aditya N	Modified pullulan nanoparticles for oral delivery of anti-HIV drug lopinavir: formulation and pharmacokinetic evaluation	Carbohydrate Polymer, 110, 320–328	International	2014
141	Punna Rao Ravi, Aditya Narasimha Murthy, Himanshu Kathuria, Srinivas Malekar and Rahul Vats	Lipid nanoparticles for oral delivery of raloxifene: Optimization, stability, in vivo evaluation and uptake mechanism	European Journal of Pharmaceutics and Biopharmaceutics, 87(1), 114-124	International	2014
142	Punna Rao Ravi, Aditya Narasimha Murthy, Snehal Patil and Lucy Cherian	Nasal in-situ gels for delivery of rasagiline mesylate: improvement in bioavailability and brain localization	Drug Delivery, doi:10.3109/10717544.2013.860501	International	2013
143	Punna Rao Ravi, Rahul Vats and Upendra Reddy Kora	Effect of ciprofloxacin and grapefruit juice on oral pharmacokinetics of riluzole in Wistar rats	Journal of Pharmacy and Pharmacology, 65(3), 337-344	International	2013
144	Punna Rao Ravi, Aditya Narasimha Murthy, Lucy Cherian and Snehal Patil	LC Method for Determination of Rasagiline Mesylate in Different Plasma Matrices and its Application to Oral Pharmacokinetic Study in Rabbits	Journal of Chromatographic Science, 51(1), 1-7.	International	2013
145	Punna Rao Ravi, Rahul Vats, Rahul Thakur, Sumanka Srivani and Aditya Narasimha Murthy	Effect of Grapefruit Juice and Ritonavir on Pharmacokinetics of Lopinavir in Wistar Rats.	Phytotherapy Research, 26(10), 1490-1495.	International	2012
146	Rahul Vats, Aditya Narasimha Murthy and Punna Rao Ravi	Simple, Rapid and Validated LC Determination of Lopinavir in Rat Plasma and its Application in Pharmacokinetic Studies	Scientia Pharmaceutica, 79(4), 849-863	International	2011
147	Sajeli Begum	Bioactive non-alkaloidal secondary metabolites of Hyoscyamus niger Linn. Seeds – A Review	Research Journal of Seed Science 2010, 3 (4), 210-217.	International	2010



148	Alvala Ravi, A. Mallika, Venkatesh Sama, A. Sajeli Begum, Rukaiyya S. Khan, B. Madhava Reddy	Antiproliferative activity and standardization of Tecomella undulate bark extract on K562 cells	Journal of Ethnopharmacology, 2011, Vol 137, 1353-1359	International	2011
149	Sajeli Begum, Angela Patnaik, S. Ameer Basha, G. Raghavendra, S. K. Pandey and B. K. Sharma	Effect of leaf extract and steroidal saponin of Cestrum diurnum L. on spore germination and mycelial growth of some fungi	EJEAF Che, 2011, 10(11), 3097-3103	International	2011
150	G. Raghavendra, S. Ameer Basha, M. V. Nagesh Kumar, K. Dharma Reddy, Sajeli Begum, S. Mahibalan, C. V. Sameer Kumar and M.Suresh	Effect of safflower petal extraction on spore germination of sorghum grain mold fungi	J. Oilseeds Res., 2012, 29 (Spl. Issue), 329-332.	National	2012
151	S. Mahibalan, A. Sajeli Begum, S. Ameer Basha and C. V. Sameer Kumar	Quality control studies on non-spiny hybrid safflower petals as per World Health Organisation (WHO) requirement	J. Oilseeds Res., 2012, 29 (Spl. Issue), 452-455	National	2012
152	Araya, H.; Maeda, U.; Hara, N.; Prasad, S.; Begum, A. S.; Sahai, M.; Fujimoto, Y.	Potent biologically active tetrahydrofuranic acetogenins from custard apple (Annona reticulata Linn) seeds.	Meiji Daigaku Nogakubu Kenkyu Hokoku, 2012, 62 (1), 1-9	International	2012
153	Deepali pandey, S. K. Prasad, A. Sajeli Begum, S. Hemalatha and A. K. Wahi	Pharmacognistical standardization and isolation of ergosterol from Melothria maderaspatana Linn.	International Journal of Food Properties, 2013, 16 (8), 1871-1882	International	2013



154	S. Mahibalan, Ruben Sharma, Aditya Vyas, S. Ameer Basha and A. Sajeli Begum	Assessment of extraction techniques for total phenolics and flavonoids from <i>Annona muricata</i> seeds	Journal of Indian Chemical Society, 2013, Dec vol 90, 1-7.	National	2013
155	Shaik Ameer Basha, Sajeli Begum, Raghavendra, Subba Rao	Sensitivity of <i>Pseudomonas fluorescens</i> and <i>Rhizobium</i> to various antibiotics under in vitro	International Journal of Bioresource and Stress Management”, 2013, Vol 4 (4), 487-491	International	2013
156	Sajeli Begum, Ameer Basha, G. Raghavendra, M. V. Nagesh Kumar, Yukthi Singh, Jagannath V Patil, Yuhei Tanemura, and Yoshinori Fujimoto	Isolation and characterization of antimicrobial compounds from <i>Pseudomonas fluorescens</i> and their efficacy on sorghum grain mold fungi	Chemistry and BioDiversity, 2014, Vol 11 (1), 92-100.	International	2014
157	Ameer Basha, Sajeli Begum, Raghavendra,	Effect of various extracts of <i>Annona muricata</i> , <i>Abutilon indicum</i> and <i>Evolvulus alsinoides</i> extract on spore germination of sorghum grain mold fungi	Int. J. Bioresource and Stress Management. 2014, Vol 5(1), 102-106.	International	2014
158	Ameer Basha, Sajeli Begum, Raghavendra	Search for agrochemical and heavy metal tolerant strains of <i>Pseudomonas fluorescens</i> and <i>Rhizobium</i>	Indian Journal of Plant Protection 2014, 42 (1), 71-77.	National	2014
159	S. Mahibalan, A. Sajeli Begum, Ravi Sojitra, S. Ameer Basha, Sameer K. Chandavenkata and C. Sudhakar	Physico-Chemical Characterization of Spineless Safflower Petals and HPLC-Based Process Optimization for Extracting Quercetin-3-O-rutinoside	Journal of Indian Chemical Society, 2014, 91, 1-9.	National	2014
160	Praveen K. Mandapalli, Suman Labala, Deekshith Vanamala, Manali P. Koranglekar, Lakshmi A. Sakimalla, Venkata Vamsi K. Venuganti	Influence of charge on encapsulation and release behavior of small molecules in self-assembled layer-by-layer microcapsules	Drug Delivery 21 (8); 605-614	International	2014



16 1	Venkata Vamsi K. Venuganti, Preety Sahdev, Michael Hildreth, Xiangming Guan, Omathanu P. Perumal	Structure-skin permeability relationship of dendrimers	Pharmaceutical Research 29 (9); 2246-2260	International	201 1
16 2	Deshpande, PP.; Biswas, S.; Torchilin, VP	Current trends in the use of liposomes for future targeting	Nanomedicine (Lond). 2013 Aug;8(9):1509-28	International	201 3
16 3	Federico Perche*, Swati Biswas*, Tao Wang, Lin Zhu, Vladimir P. Torchilin	Hypoxia targeted siRNA delivery	Angew Chem Int Ed Engl. 2014, 53(13), 3362-6	International	201 4
16 4	Swati Biswas, Vladimir P. Torchilin	Nanopreparations for the organelle-specific delivery in cancer	Advanced Drug Delivery review. 2014, 66, 26-41	International	201 4
16 5	Navarro, G.; Essex S.; Sawant RR.; Biswas, S.; Nagesha D.; Sridhar, S.; de Ilarduya, CT.; Torchilin, VP.	Phospholipid-modified polyethyleneimine-based nanopreparations for siRNA-mediated gene silencing: Implications for transfection and the role of lipid components	Nanomedicine: Nanotechnology, Biology and Medicine. 2014, 10(2), 411-9	International	201 4
16 6	Jaipal, A., and Charde, S.Y.	2013. Interaction of Calcium Sulphate with Xanthan Gum: Effect on In Vitro Bioadhesion and Drug Release Behavior from Xanthan Gum based Buccal Discs of Buspirone.	Colloids and Surfaces B: Biointerfaces, 111, 644-650.	International	201 3
16 7	Pandey, M.M., Jaipal, A., Kumar, A., Malik, R., and Charde, S.Y	Determination of pKa of Felodipine using UV-Visible Spectroscopy.	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 115, 887-890.	International	201 3
16 8	Jaipal, A., Pandey, M.M., Charde, S.Y., Sadhu, N., Srinivas, A., Prasad, R.G.	Controlled Release Effervescent Buccal Discs of Buspirone Hydrochloride: In-vitro and In-Vivo Evaluation Studies	Drug Delivery, In Press, DOI: 10.3109/10717544.2014.917388.	International	201 4
16 9	MM Pandey, A Jaipal, SY Charde, P Goel, L Kumar	Dissolution enhancement of felodipine by amorphous nanodispersions using an amphiphilic polymer: insight into the role of drug-polymer	Pharmaceutical development and technology, 1-12	International	201 5



		interactions on drug dissolution			
170	A Jaipal, MM Pandey, SY Charde, PP Raut, KV Prasanth, RG Prasad	Effect of HPMC and mannitol on drug release and bioadhesion behavior of buccal discs of buspirone hydrochloride: In-vitro and in-vivo pharmacokinetic studies	Saudi Pharmaceutical Journal Volume 23, Issue 3, July 2015, Pages 315–326	International	2015
171	Raut, P.P., Charde, S.Y.	Simultaneous Estimation of Levodopa and Carbidopa by RP-HPLC using a Fluorescence Detector: Its Application to a Pharmaceutical Dosage Form	Luminescence, 29(7), 762-771	International	2014
172	Raut, P.P., Sharma, A., Agarwal, G., Charde, S.Y.	Quantitative Estimation of Artesunate and Amodiaquine HCl by High performance Thin Layer Chromatographic Method in Bulk and Pharmaceutical Formulations.	Journal of Liquid Chromatography and Related Technologies, 37, 1568-1582.	International	2014

#### Conference Presentations

S. No.	Authors	Title of Publications	Details of Conference	National/international	Year
1	P. Yogeewari	Molecular modelling & Drug design as an important tool in Drug Discovery	National Level Workshop on Tools for the Design & Synthesis of drugs sponsored by AICTE, April 22-24, 2010, Hyderabad	National	2010
2	Monika Sharma, A. Sunil Kumar Reddy, A. Semwal, D. Sriram, P. Yogeewari	Effectiveness of Newer Lipophilic GABA analogues against epilepsy	43rd Annual Conference of Indian Pharmacological Society & International Conference on Pharmacology & Translational Research & ICMR Centenary Year Celebrations, 13-16th December 2010, Hyderabad	Both	2010



3	P. Yogeewari, A. Sunil Kumar Reddy, A. Semwal, D. Sriram	Novel role of GABAergic anticonvulsant compounds in alleviating neuropathic pain in two animal models	43rd Annual Conference of Indian Pharmacological Society & International Conference on Pharmacology & Translational Research & ICMR Centenary Year Celebrations, 13-16th December 2010, Hyderabad	Both	2010
4	P. Yogeewari	Targeting Microglial Cathepsin S for the treatment of neuropathic pain: Challenges and drug design strategies	Indo-UK Seminar on Innovative Medicines" organized by DST (India) and Royal Society (UK), November 14-15, 2011, Hyderabad	International	2011
5	Mallika A., Ravikiran A., P. Yogeewari, D. Sriram	Development of homology model and docking studies of Mycobacterium tuberculosis sirtuin protein (Rv1151c)	RSC MedChem-2011, 25-26th February 2011, Hyderabad	International	2011
6	Monika A., Thimmappa H.M., P. Yogeewari, D. Sriram	Dicyclohexylcarbodiimide mediated one pot synthesis of novel substituted 1,3-thiazinylisonicotinamides and evaluation for the treatment of tuberculosis	RSC MedChem-2011, 25-26th February 2011, Hyderabad	International	2011
7	Thimmappa H.M., P. Yogeewari, D. Sriram	Synthesis and evaluation of isonicotinoylpyrazolopiperidine derivatives for the treatment of tuberculosis	RSC MedChem-2011, 25-26th February 2011, Hyderabad	International	2011
8	Jean Kumar, Thimmappa H.M., Pritesh Bhatt, Srividya M., P. Yogeewari, D. Sriram	In-silico design and synthesis of novel 2-(1-aminocyclobutyl)-2-hydroxy acetic acid as potential inhibitors of Mycobacterium tuberculosis isocitrate lyase	RSC MedChem-2011, 25-26th February 2011, Hyderabad	International	2011
9	P. Yogeewari, A.Sunil Kumar Reddy, Arvind Semwal, M. Arjun, D. Sriram	Multifunctional drug lead discovery for the treatment of neuropathic pain including trigeminal neuralgia and diabetic neuropathy: Combination of GABA receptor, cannabinoid	14th Asian Chemical Congress, 5-8 Septemeber 2011, Bangkok	International	2011





		receptor and nitric oxide as targets			
10	Siddarth Sai, M., Jean Kumar, P. Yogeewari, D. Sriram	Design, synthesis and in-vitro evaluation of novel piperido-hydrazine derivatives as potential anti-tubercular agents	MedChem-2011 Conference on Anti-infective drug Discovery & Development, 28-29th October 2011, Chennai	National	2011
11	Monika Sharma, M. Ganghadhar, Binita Kundu, Arvind Semwal, D. Sriram, P. Yogeewari	Pharmacological profiling of triazolone derivatives as new leads for neuropathic pain treatment	XXXXIVth Annual Conference of Indian Pharmacological Society, 19-21 December 2011, Manipal	National	2011
12	M. Gangadhar, Monika Sharma, D. Sriram, P. Yogeewari	Preclinical evaluation of some novel heterocycles against postoperative pain	XXXXIVth Annual Conference of Indian Pharmacological Society, 19-21 December 2011, Manipal	National	2011
13	V. Deekshith, Monika Sharma, D. Sriram, P. Yogeewari	Evaluation of analgesic activity of new chemical entities in two rodent models of pain	XXXXIVth Annual Conference of Indian Pharmacological Society, 19-21 December 2011, Manipal	National	2011
14	Yukti Singh, Monika Sharma, D. Sriram, P. Yogeewari	Neurotoxicological evaluation of BITS candidate drugs in four animals models	XXXXIVth Annual Conference of Indian Pharmacological Society, 19-21 December 2011, Manipal	National	2011
15	Sunil Kumar Sharma, V. Mahesh Kumar, V.U. Jean Kumar, P. Yogeewari, D. Sriram	Design, Synthesis and in-vitro evaluation of novel 4-aminopiperido-thiazole derivatives as potential antitubercular agents	63rd Indian Pharmaceutical Congress 2011, 19-21 December 2011, Bangalore	National	2011
16	V. Mahesh Kumar, Sunil Kumar Sharma, V.U. Jean Kumar, P. Yogeewari, D. Sriram	Design, Synthesis and in-vitro evaluation of novel imidazo-quinaxolone derivatives as potential anti-tubercular drugs	63rd Indian Pharmaceutical Congress 2011, 19-21 December 2011, Bangalore	National	2011



17	M. Siddarth Sai, A. Mallika, V.U. Jean Kumar, P. Yogeewari, D. Sriram	In-silico design and synthesis of small molecule inhibitors of human SIRT1	63rd Indian Pharmaceutical Congress 2011, 19-21 December 2011, Bangalore	National	2011
18	A. Monika, A.V. Ramani, V.U. Jean Kumar, H.M. Thimmappa, P. Yogeewari, D. Sriram	One pot synthesis of novel substituted 1,3-thiazinylisonicotinamides, in-vitro evaluation and pre-pharmacokinetic profile studies for the treatment of tuberculosis	63rd Indian Pharmaceutical Congress 2011, 19-21 December 2011, Bangalore	National	2011
19	A. Ravi Kiran, D. Sriram, P. Yogeewari	Prediction of bioactivity and toxicity of BITS Database compounds using empirical and focused scoring techniques	63rd Indian Pharmaceutical Congress 2011, 19-21 December 2011, Bangalore	National	2011
20	P. Yogeewari	Pharmacophoric Hybrid Chemical Design using Aryl Semicarbazide Scaffold to Yield Multifunctional Leads for the Treatment of Various Neuropathic Pain Conditions	National Symposium on Emerging Trends in Chemical Sciences sponsored by UGC, March 20, 2012, Indore	National	2012
21	Monika Sharma, Arvind Semwal, V. Deekshith, D. Sriram, P. Yogeewari	Discovery of newer triazolo[3,4-b]thiadiazoles for the treatment of neuropathic pain: Pharmacophoric hybrid approach for multifunctional lead development	4th International Conference on Drug Discovery & Therapy, 12-15 February 2012, Dubai	International	2012
22	P. Ravichand, Ramakrishna Vadrevu, P. Yogeewari, D. Sriram	Structure-based Pharmacophore Modeling and Virtual screening of $\beta$ -secretase Inhibitors	International Conference on Advances in Biological Sciences, 15-17 March 2012, Kannur	International	2012
23	Omer Poyraz, Robert Schnell, Jean Kumar V.U., Yogeewari P., Sriram D., Gunter Schneider	Discovery of inhibitors targeting the Mycobacterium tuberculosis O-acetylserine sulfhydrylase (OASS) CysK1 as potential agents against mycobacterial latency.	16th Annual Conference of the Swedish Structural Biology Network, 15-18 June 2012, Talberg, Sweden	International	2012
24	Jean Kumar V.U, Manoj C., Vijay Soni, Patrisha J.T., Mallika A., Yogeewari P., Nandicoori,	Discovery of novel Mycobacterium tuberculosis GlmU inhibitors	16th Annual Conference of the Swedish Structural Biology Network, 15-18 June 2012, Talberg, Sweden	International	2012



	V.K., Sriram D				
25	Devi, P.B., Mallika A., P. Yogeewari, D. Sriram	Development of Pantothenate Synthetase Inhibitors for Mycobacterium Tuberculosis Infection: Design and Enzyme Inhibition	3rd World Congress on Biotechnology, 13-15 Septemeber 2012, Hyderabad	International	2012
26	Madhu Babu, B., Madhuri Chandra, D. Sriram, P. Yogeewari	Discovery of New Microglial Cathepsin S Inhibitors for the Treatment of Neuropathic Pain: Pharmacophore modelling, 3D-QSAR and High-throughput screening	3rd World Congress on Biotechnology, 13-15 Septemeber 2012, Hyderabad	International	2012
27	J.T. Patrisha, K. Sridevi, K. Shruti, D. Sriram, P. Yogeewari	Discovery of New Small Molecule Inhibitors of Hepatitis C Virus RNA-dependent RNA polymerase: Pharmacophore modelling, 3D-QSAR studies and High-throughput screening	3rd World Congress on Biotechnology, 13-15 Septemeber 2012, Hyderabad	International	2012
28	P. Venkat Koushik, P. Yogeewari, D. Sriram	Designing Small Molecule Inhibitors of NMPRTase as Anticancer leads using in silico approach	3rd World Congress on Biotechnology, 13-15 Septemeber 2012, Hyderabad	International	2012
29	Reshma Alokam, Jean Kumar, D. Sriram, P. Yogeewari	Identification of novel inhibitors of Chorismate mutase enzyme involved in Shikimic pathway of Mycobacterium tuberculosis: Design and In-vitro screening	3rd World Congress on Biotechnology, 13-15 Septemeber 2012, Hyderabad	International	2012
30	A. Mallika, Shubmitha Bhatnagar, A. Ravi, V.U. Jean Kumar, T.H. Manjashetty, P. Yogeewari, D. Sriram	Novel acridinone derivatives: Design, synthesis, SIRT1 enzyme and tumour cell growth inhibition studies	3rd World Congress on Biotechnology, 13-15 Septemeber 2012, Hyderabad	International	2012
31	M. Saketh, Ram Kumar Mishra, D. Sriram, P. Yogeewari	Design of Novel Protein Kinase Inhibitors for the treatment of Painful Diabetic Neuropathy using Energy-based Pharmacophore Modelling	3rd World Congress on Diabetes & Metabolism, 24-26 Septemeber 2012, Hyderabad	International	2012



		and Docking studies			
32	P. Sripriya, M. Soumya, Reshma Alokam, P. Susruta, D. Sriram, P. Yogeewari	Structure Guided Design of Inhibitors for SH3 domain of p47phox subunit of NADPH Oxidase 2 implicated in various human disorders	3rd World Congress on Diabetes & Metabolism, 24-26 Septemeber 2012, Hyderabad	International	2012
33	Ram Kumar Mishra, Reshma Chowdary, D. Sriram, P. Yogeewari	Design of Novel Rho Kinase Inhibitors for the treatment of Diabetic Complications using Energy-based Pharmacophore Modelling, In-silico screening and Docking studies	3rd World Congress on Diabetes & Metabolism, 24-26 Septemeber 2012, Hyderabad	International	2012
34	P. Yogeewari, A.S.K. Reddy, J.V. Ragavendran, Arvind Semwal, Ram Kumar Mishra, D. Sriram	Spiro-nucleus linked GABA analogues as potential antiepileptic agents acting through GABA mediation and inhibiting nitric oxide and free radicals	10th European Congress on Epileptology, 30th Septemeber -4th October 2012, London	International	2012
35	P. Yogeewari	Computational tools to develop chemical libraries for Drug Discovery	National Conference on Frontiers of Chemical Research, 25-26 October 2013, Hyderabad	National	2013
36	P. Santosh, V.U. Jean Kumar, S. Saxena, P. Yogeewari, D. Sriram	In-Silico Design and Synthesis of Novel Nitrothiazole derivatives as potential inhibitors of MTB CysK1	5th International Symposium of Drug development for Orphan/Neglected Diseases, 26-28 February 2013, Lucknow	International	2013
37	S. Sahithi, J. Renuka, P. Yogeewari, D. Sriram	In-Silico Design and in-vitro assay of inhibitors of pathogenic Staphylococcus aureus DNA gyrase	5th International Symposium of Drug development for Orphan/Neglected Diseases, 26-28 February 2013, Lucknow	International	2013



38	P. Santosh, V.U. Jean Kumar, A. Reshma, D. Sriram, P. Yogeewari	Development of carvacrol derivatives as potential inhibitors of MTB chorismate mutase	2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad	International	2013
39	M. Brahmam, J. Renuka, V.U. Jean Kumar, P. Yogeewari, D. Sriram	In-Silico discovery of novel phenylenediamine class of antibacterials as potential DNA gyrase inhibitors	2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad	International	2013
40	P. Ganesh, V.U. Jean Kumar, P. Sridevi, P. Yogeewari, D. Sriram,	Development of novel substituted benzoxazolinone derivatives as potential antitubercular agents	2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad	International	2013
41	M. Siddharth Sai, V.U. Jean Kumar, A. Reshma, P. Yogeewari, D. Sriram,	In-Silico design, Synthesis and in-vitro screening of novel inhibitors of Chorismate mutase enzyme involved in Shikimate pathway of Mycobacterium tuberculosis	2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad	International	2013
42	A.T. Dharmaraja, A. Mallika, D. Sriram, P. Yogeewari, H. Chakrapani,	Small molecule reactive oxygen species generator as antimycobacterial agents	2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad	International	2013
43	B. K. Andrews, V.U. Jean Kumar, J. Renuka, P. Yogeewari, D. Sriram,	Discovery of novel benzimidazole class of antibacterial agents targeting the ATPase domains of DNA gyrase	2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad	International	2013
44	J. T. Patrisha, D. Sriram, P. Yogeewari,	Discovery of novel small molecule inhibitors of Human immunodeficiency virus (HIV) protease: Pharmacophore modeling, 3D QSAR studies and High-throughput screening	2nd UK-India MedChem Congress, 22-23 March 2013, Hyderabad	International	2013
45	P. Yogeewari, R.K. Mishra, A. Semwal, D. Sriram,	Evaluation of antinociceptive properties of novel curcumin derivatives using animal models of neuropathic pain,	5th ASEAPS (Association of South-East Asian Pain Societies Conference), Pain: The Unseen Disease, 2nd-5th May 2013, Singapore.	International	2013



46	Madhu Babu, B., D. Sriram, P. Yogeewari,	Targeting microglial cathpsin S to treat neuropathic pain: Drug design and biological evaluation,	8th Congress of the European Federation of IASP Chapters- Pain in Europe VIII, 9-12 October 2013, Florence, Italy	International	2013
47	Saketh, S.D., Reshma, A., Srikant, V., Sriram, D., Yogeewari, P.,	BIA-6: A novel AKT inhibitor with potent activity in lung cancer,	15th World Conference on Lung Cancer, 27-30 October 2013, Sydney	International	2013
48	Matharasala G., Mishra R.K., Srivastav G., Singhal S.M., Sriram, D., Yogeewari, P.,	Novel semicarbazone derivatives effective against Diabetic peripheral neuropathy,	46th Annual Congress of the Indian Pharmacological Society IPSCON-2013, 16-18th December 2013, Bangalore	National	2013
49	Mishra R.K., Matharasala G., Srivastav G., Singhal S.M., Sriram, D., Yogeewari, P.,	Evaluation of antinociceptive properties of novel Rho Kinase inhibitors using animal models of neuropathic pain	46th Annual Congress of the Indian Pharmacological Society IPSCON-2013, 16-18th December 2013, Bangalore	National	2013
50	P. Yogeewari	In-Silico Drug Design: A tool to Identify Novel Chemical Entities	APSCHE Sponsored National Level Seminar on Recent Trends and Applications of Software Tools in Pharmacy at PHARMASAGRA, on 9-10 January 2014, Karimnagar	National	2014
51	D. Sriram, P. Yogeewari	Brainstorming session on Retrosynthesis	National Conference on Infectious Diseases-Medicinal Chemistry Perspective sponsored by DST & KSCTC, 29-30th August 2014, AIMS, Kochi	National	2014



52	Yogeeswari, P., Patrisha J.T., Sriram, D.,	Structure-based drug design utilizing multiple crystal structures to design anti-viral agents,	3rd ScienceOne Conference on Drug Discovery and Development (SCDDD), 21-23 January 2014, Dubai.	International	2014
53	A.Seal, P. Yogeeswari, D. Sriram, D.J. Wild, OSDD Consortium,	3D Virtual Screening of PknB inhibitors using data fusion methods,	1st Official Conference of the International Chemical Biology Society, 4-5 October, 2014, Cambridge, MA, USA	International	2014
54	Devi, P.B., Saxena, S., Sriram, D., Yogeeswari, P.,	Screening and Identification of Potent Inhibitors against pantothenate synthetase- An important target Mycobacterium tuberculosis infection	3rd ScienceOne Conference on Drug Discovery and Development (SCDDD), 21-23 January 2014, Dubai.	International	2014
55	Shravan, M, Renuka, J., Yogeeswari, P., Sriram, D.,	Design and biological evaluation of novel Staphylococcus aureus DNA gyrase inhibitors.	International Conference on "Drugs for the Future: Infectious Diseases", Antimicrobial Drug Discovery: Challenges and Perspectives, 27-28 March 2014, Hyderabad	International	2014
56	Kakan, S.K., JeanKumar, V.U., Devi, P.B., Shalini, S., Sriram, D., Yogeeswari, P.,	Targeting Mycobacterium tuberculosis Lysine aminotransferase: Design, synthesis and in vitro evaluation of small molecule compounds	International Conference on "Drugs for the Future: Infectious Diseases", Antimicrobial Drug Discovery: Challenges and Perspectives, 27-28 March 2014, Hyderabad	International	2014
57	Srikanth, R., Reshma, A., Kulkarni, P., Sriram, D., Yogeeswari, P.,	Structure-based drug design, synthesis and screening of Adenosine A2A antagonists as novel antiepileptic agents.	11th European Congress on Epileptology, 29th June-3rd July 2014, Stockholm	International	2014



58	Renuka, J., JeanKumar, V., Bobesh, A., Vijay, S., Devi, P.B., Venkat, K.P., Priyanka, S., Keerthana, S., Pushkar, K., Yogeeswari, P., Sriram, D.,	Design and biological evaluation of novel antibacterial inhibitors against DNA GyrB from clinical isolates of Staphylococcus aureus.	Gordon Research Conferences, 10-15th August 2014, Maine, USA	International	2014
59	Srikant, B., Methuku, S., Tharun, K.G., Shewta, M., Sridevi, J.P., Yogeeswari, P., Sriram, D., Chakraborti, A.K.,	Alpha-Sulphonamidophosphonates and bis alpha-aminophosphonates: New leads towards infectious disease chemotherapy.	248th ACS National Meeting & Exposition, 10-14 August, San Francisco, CA, USA	International	2014
60	Ganesh, S.; Radhika, N.; Devi, P.B.; Yogeeswari, P.; Sriram, D.	Design, synthesis and biological evaluation of 6-methylimidazo[2,1-b]thiazole-5-carboxylic acid derivatives as novel Mycobacterium tuberculosis pantothenate synthase inhibitors.	15th Tetrahedron Symposium- Asian Edition: Challenges in Bioorganic and Organic Medicinal Chemistry, 28-31 October 2014, Singapore.	International	2014
61	Priyanka, P., Reshma, A., Aruna, M., Yogeeswari, P., Sriram, D.,	Comparative modeling combined with Molecular dynamics and Docking studies to identify potent inhibitors of PKMzeta and Biological evaluation.	9th Brain Research Conference: Neuroprotection: Basic mechanism and translational potential, 13-14th November 2014, Washington DC, USA	International	2014
62	Priyanka, P.; Aruna, M.; Banumurthy, N.L.; Yogeeswari, P.; Sriram, D.	Effect of feature selection on Kinase Classification Models.	International Conference on Computational Intelligence: Health and Diseases (CIHD), 27-28 December 2014, Vishakapatnam, India	International	2014
63	Gaus, A., Mishra, R.K., Alokam, R., Singhal, S.M., Sriram, D., Yogeeswari, P.,	Evaluation of 2,6-diaminopyrimidines as novel Rho kinase inhibitors using animal models of treatment of neurological disorders.	66th Indian Pharmaceutical Congress: India-Pharmacy of the World, 23-25 January 2015, Hyderabad	National	2015





64	Gangadhar, M., Alokam, R., Sriram, D, Yogeewari, P,	MG2, a novel semicarbazone derivative, reduces neuropathic pain by inhibiting the expression levels of neuroinflammatory mediators.	2015 Keystone Symposia: C8: Pathways of Neurodevelopmental Disorders, 16-20 March 2015, California, USA	International	2015
65	Sajeli Begum A., Mahibalan S, Rukaiyya Khan, Poorna Chandra Rao, Fujimoto Y.	Cancer cell proliferation effect of iridoid glucosides isolated from Hedyotis umbellata	15th Tetrahedron Symposium: Asia Edition, 2014, Oct28-31, Singapore	International	2014
66	Rukaiyya Khan, Mahibalan S, Sajeli Begum	Isolation and identification of chemical constituents of Abutilon indicum	International Conference and Exhibition on Pharmacognosy, Phytochemistry and Natural Products, Hyderabad	International	2013
67	Sajeli Begum A., Mahibalan S, Rukaiyya Khan	Identification and structure elucidation of cleomiscosins using spectroscopy	International Conference and Exhibition on Pharmacognosy, Phytochemistry and Natural Products, 2013, Oct 21-23, Hyderabad, India	International	2013
68	Sajeli Begum A., Mahibalan S, Rukaiyya Khan, Poorna Chandra Rao	In-vitro anticancer assay of Hedyotis umbellata on ACG-Gastric cell line and identification of major constituents.	International Conference on Bioactive Phytochemicals and Therapeutics, 2013, April 5-7, Annamalai University, Tamilnadu.	International	2013
69	Sajeli Begum A., Mahibalan S, Rukaiyya Khan, Poorna Chandra Rao	Characterisation of potential phyto-regioisomers using nuclear magnetic resonance spectroscopy.	International Conference on Bioactive Phytochemicals and Therapeutics, 2013, April 5-7, Annamalai University, Tamilnadu	International	2013
70	Sajeli Begum A., Mahibalan S, Rukaiyya Khan, Poorna Chandra Rao	Dermal wound healing potential of alkaloid enriched ointment of Evolvulus alsinoides in albino rats.	International Symposium on Chemistry and Chemical Biology of Natural Product,	International	2012



			2012, Aug 2, IICT, Hyderabad.		
71	Rukaiyya Khan, Mahibalan S, Mallika A, Sajeli Begum	In-vitro anticancer activity of Abutilon indicum leaves on Human breast carcinoma cell line (MDA-MB-231).	4th International Conference on Drug Discovery and Therapy, 2012, Dubai.	International	2012
72	Mahibalan S, Ragavendra G, Ameer Basha S, Sajeli Begum A,	Quality control studies on non-spiny hybrid safflower petals as per World Health Organisation (WHO) requirement	8th International Safflower Conference, 2012, Hyderabad.	International	2012
73	Mahibalan S, Ragavendra G, Ameer Basha S, Sajeli Begum A,	Effect of safflower petal extract on spore germination of sorghum grain mold fungi.	8th International Safflower Conference, 2012, Hyderabad.	International	2012
74	Mahibalan S, Angella Patnaik, Mahendra Sahai, Sajeli Begum A,	Biological and chemical validation for the traditional use of Physalis peruviana leaves in the treatment of rheumatism.	XLIV Annual Conference of Indian Pharmacological Society, 2011, Manipal.	National	2011
75	Rukaiyya Khan, Mahibalan S, Mallika A, Sajeli Begum	In vitro anticancer activity of Abutilon indicum leaves on U-87 MG, a brain tumor cell line.	XLIV Annual Conference of Indian Pharmacological Society, 2011, Manipal.	National	2011
76	Rukaiyya Khan, Mahibalan S, Mallika A, Sajeli Begum	In vitro anticancer activity of Safflower petals on osteosarcoma (U-87 MG) cell line.	Symposium on Current Trends in Pharmaceutical Sciences, 2011, Hyderabad	National	2011
77	Pandey, M.M., Raut, P., Jaipal, A., and Charde, S.Y.	Spectrophotometric and Spectrofluorometric Study for the Estimation of Felodipine in Bulk and Formulation.	62 <sup>nd</sup> Indian Pharmaceutical Congress, Manipal, India	National	December 17 to 19, 2010
78	Raut, P.P., Jaipal, A., Manish, K., and Charde, S.Y.	Design and Evaluation of pH Independent Sustained Release Tablet of Ondansetron Hydrochloride	10th International Symposium on Advances in Technology and Business Potential of New Drug Delivery System Mumbai, India	International	February 17-18, 2010
79	Jaipal, A, Pandey, M.M., and Charde, S.Y.	Development and Evaluation of Buccal Mucoadhesive drug Delivery Systems of Amlodipine Besylate. 2010	10th International Symposium on Advances in Technology and Business Potential of New Drug	International	February 17-18, 2010



			Delivery System Mumbai, India		
80	Pandey, M. M., Ramakrishna, R., Singh, D., Raut, P., and Charde, S. Y.	Solubility Enhancement of Felodipine using Beta- cyclodextrin Inclusion Complexes.	APTI -16th Annual National Convection, Moga India	National	October 7-9, 2011
81	Pandey, M. M., Krishna Kumar, G., Khandelwal, R., Jaipal, A, and Charde S. Y.	Solubility Enhancement of Felodipine by Solid Dispersion Technique	APTI -16th Annual National Convection, Moga India	National	October 7-9, 2011
82	Radhakrishna n, R., Raut, P.P., Jaipal, A., Pandey, M.M., and Charde, S.Y.	Development and Validation of UV-Spectrophotometric Methods for the Estimation of Ondansetron Hydrochloride in Bulk and Formulations	National Conference on Contemporary Trends in Biological and Pharmaceutical Research, BITS Pilani	National	October 7-9, 2011
83	Tyagi, V., Jaipal, A., Pandey, M.M., Raut, P. P., and Charde S.Y.	Formulation and Evaluation of Directly Compressed Modified Release Tablets of Ondansetron Hydrochloride.	National Conference on Contemporary Trends in Biological and Pharmaceutical Research, BITS Pilani	National	March 12-13, 2011
84	Pandey, M. M., Raut, P., Jaipal, A., and Charde, S.Y.	Development of a High Performance Liquid Chromatographic Method for the Estimation of Felodipine in Bulk and Formulation	5th International Conference on Clinical Pharmacology- Discovery, Development & Beyond, Mumbai	International;	March 12-13, 2011
85	Pandey, M. M., Yadav Laxmiharika, T., Gajja, A., Malik, R., Kumar, A., Parwani, M., and Charde, S. Y.	UV-Visible Spectrophotometric Analysis of Felodipine in Bulk and Formulation.	3rd World Congress on Bioavailability and Bioequivalence, Hyderabad	International	March 26-28, 2012
86	Pandey, M. M., Krishna Kumar, G., Ramakrishna, R., and Charde, S. Y.	Solubility Enhancement of Felodipine by Solid Dispersions with a Novel Polymeric Solubilizer Soluplus.	3rd World Congress on Bioavailability and Bioequivalence, Hyderabad	International	March 26-28, 2012



87	Pandey, M. M., Reddy, P.C.H., Singh, D., and Charde, S. Y.	Dissolution Enhancement of Felodipine by Solid Dispersion Technique.	3rd World Congress on Bioavailability and Bioequivalence, Hyderabad	International	March 26-28, 2012
88	Charde, S.Y., Raut, P.P., Desai A.A., Sonawane, S., and Gupta D.D.	Design of Modified Release Multi-Unit Particulate Delivery Systems of Amodiaquine Hydrochloride for Paediatrics.	12 <sup>th</sup> International Symposium on Advances in Technology and Business Potential of New Drug Delivery Systems, Mumbai, India	International	February, 9-10, 2012
89	Jaipal, A., Praveena, B., Pinki, P. and Charde S.Y.	Design and Development of Mucoadhesive Buccal Patches of Buspirone Hydrochloride.	12 <sup>th</sup> International Symposium on Advances in Technology and Business Potential of New Drug Delivery Systems, Mumbai, India	International	February, 9-10, 2012
90	Pandey, M. M., Jaipal, A., Malik, R., Kumar, A., and Charde S. Y.	Dissolution Rate Enhancement of Pioglitazone Hydrochloride by Solid Dispersions using Poloxamer 188.	APTI 17 <sup>th</sup> Annual National Convention, Manipal, India	National	October 12-14, 2012
91	Pandey, M. M., Jaipal, A., Kumar, A., Malik, R., Parwani, M., and Charde S.Y.	Formulation and in vitro Evaluation of Buccal Tablets of Felodipine using Polycarbophil, a Mucoadhesive Polymer.	APTI 17 <sup>th</sup> Annual National Convention, Manipal, India	National	October 12-14, 2012
92	Jaipal, A., Pandey, M.M., Abhishek, A., Praveen, L., and Charde S Y.	Design and Evaluation of Buccal Tablets of Buspirone HCl: Effect of Polycarbophil and Mannitol on Drug Release.	APTI 17 <sup>th</sup> Annual National Convention, Manipal, India	National	October 12-14, 2012
93	Jaipal, A., Pandey, M.M., Tarun, B., Shreya, C., and Charde S Y.	Design and Evaluation of Buccal Tablets of HPMC by Direct Compression Method.	APTI 17 <sup>th</sup> Annual National Convention, Manipal, India	National	October 12-14, 2012
94	Jaipal, A., Pandey, M. M., Charde, S. Y., and Vinay, S.	Design and Evaluation of Buccal Tablets of Buspirone HCl: Effect of HPC and Mannitol on Drug Release.	APTI 17 <sup>th</sup> Annual National Convention, Manipal, India	National	October 12-14, 2012
95	Pandey, M.M., Ashish, G., Jaipal, A. and Charde, S.Y.	Dissolution Rate Enhancement of Felodipine by Solid Dispersions using Novel Amphiphilic Polymer Soluplus®.	40th Annual Meeting and Exposition of CRS, Honolulu, Hawaii, USA	International	July 21-24, 2013



96	Pandey, M.M., Jaipal, A., Goel, P., Kumar, L., and Charde, S.Y.	Estimation of Felodipine in Bulk and Formulations by High Performance Liquid Chromatographic Method using Florescence Detection.	AAPS Annual Meeting and Exposition, San Antonio, Texas, USA	International	November 10-14, 2013
97	Jaipal, A., Pandey, M. M., Shailaja, P. and Charde, S. Y.	Design of Buccal Mucoadhesive Drug delivery Systems of Buspirone: Effect of HPMC and Mannitol on Drug Release and Mucoadhesion Behaviour using Factorial Design Approach.	AAPS Annual Meeting and Exposition, San Antonio, Texas, USA	International	November 10-14, 2013
98	Aditya N, R Vats, U Avula and PR Ravi.	Design of polymeric nanocapsules for raloxifene hydrochloride by multiple emulsion method (w/o/w) using rotatable central composite design model	10th International Nano Medicine and Drug Delivery (NanoDDS'12) Symposium, Atlantic City, NJ, USA	International	October 2012
99	Aditya N, R Vats, H Kathuria and PR Ravi.	Solid lipid nanoparticles for oral delivery of raloxifene: optimization, pharmacokinetic evaluation, bio-distribution and uptake studies	13 <sup>th</sup> International Symposium of Controlled Release Society, Indian Chapter, Mumbai, India	International	January, 2013.
100	Aditya N, R Vats and PR Ravi.	Self-organizing soy lecithin-chitosan nanoparticles for oral delivery of raloxifene.	3 <sup>rd</sup> Nano Today Conference, Biopolis, Singapore.	International	December, 2013
101	Aditya N, H Kathuria and PR Ravi.	Raloxifene loaded SLN and NLC: comparison of in-vitro properties and in-vivo behavior after oral administration in rats.	3 <sup>rd</sup> Nano Today Conference, Biopolis, Singapore.	International	December, 2013
102	R Vats, PR Ravi and Aditya N.	Polymeric nanoparticles of lopinavir to improve its oral bioavailability.	39 <sup>th</sup> Annual Meeting & Exposition of the Controlled Release Society, Quebec City, Canada	International	July, 2012.
103	R Vats, Aditya N and PR Ravi.	Enhanced oral bioavailability of lopinavir from pullulan acetate nanoparticles: in vitro and in vivo evaluation.	3 <sup>rd</sup> Nano Today Conference, Biopolis, Singapore.	International	December, 2013
104	R Vats, Aditya N and PR Ravi.	ADME of lopinavir loaded solid lipid nanoparticles in normal and hepatic impaired Wistar rats.	6 <sup>th</sup> International Symposium on DMPK, NIPER, Mohali, India.	International	February, 2014



### 23. Details of patents and income generated

SL No	Investigators	Title of Patent	Type of patent (National/International)
1	Yogeeswari, P.,Sriram, D., Kumar, A.S.K.	Novel N-Spiro substituted compounds.	Indian Patent 263536 (Granted on 5th Nov 2014)
2	Yogeeswari, P., Sriram, D., Madhubabu, B., Brahmam, M.,	A Compound for treating inflammatory neuropathic pain and cancer.	Indian Patent Application No. 2945/DEL/2014 (15/10/2014)
3	Saketh, D.V.S., Srikanth, V., Yogeeswari, P., Sriram, D.,	Novel compounds as modulators of AKT.	Indian Patent Application No. 5707/CHE/2014 (13/11/2014)
4	Vladimir Torchilin, Swati Biswas	Compositions for the delivery of rna and drugs into cells	US Patent publication number WO2014025795 A1 (Publication date. 13.02. 2014)
5	Torchilin, Vladimir; Biswas, Swati; Perche, Federico	Hypoxia-targeted delivery system for pharmaceutical agents	US Patent publication number WO2015/061321 (Publication date. 30.04. 2015)
6	Ralph Mazitschek, Teru Hideshima, Kenneth C. Anderson, Stephen J. Haggarty, Balaram Ghosh	Inhibitors of Histone Deacetylase	US Patent: Publication number WO2015069693A1; Application number PCT/US2014/064016
7	Mazitschek, Ralph; Ghosh, Balaram, Haggarty, Stephen J, Hendricks, James Adam, Reis, Surya A	Photo Switchable HDAC Inhibitors	US Patent: Publication number WO2014160221A; Application number PCT/US 2014/026069

### 24. Areas of consultancy and income generated

Tubercular drug discovery	Rs 10,00,000
Pharmaceutics	Rs 5,27,080
Anti-inflammatory and anticancer drug development	Rs 21,00,000

### 25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad

SL No	Travel Fellowship	Visiting Institute	Year
1	NASA visiting scientist fellowship	A.N. Bach Institute, Moscow	9/1/2012



**26. Faculty serving in National committees b) International committees c) Editorial Boards d) any other (please specify)**

**c) Faculty serving on Editorial Boards**

SL No	Faculty Name	Journal Name
1	Dr. Balaram Ghosh	Journal of Pharmaceutical Sciences and Pharmacology ISSN: 2333-3715 (Print): EISSN: 2333-3723 (Online) American Scientific Publishers
2	Dr. Balaram Ghosh	International Journal of Pharmacy and Engineering (IJPE) www.abhipublications.org
3	Dr. Balaram Ghosh	Journal of Fundamental Pharmaceutical Research ISSN: 2348-5388 (Online)
4	Dr. Balaram Ghosh	Journal of Applied Pharmaceutical Research ISSN: 2348-0335

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members. As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level.

Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.

**28. Student projects**

- **percentage of students who have done in-house projects including inter-departmental projects**

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.

- **percentage of students doing projects in collaboration with other universities /industry / institute**

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university



**29. Awards / recognitions received at the national and international level by Faculty**

SL No	Faculty Name	Award/Recognition Received
1	Prof. P. Yogeeswari	Recipient of INDIAN COUNCIL OF MEDICAL RESEARCH "Shakuntala Amir Chand Prize 2010" for excellent biomedical research honored in August 2013.
2	Prof. P. Yogeeswari	IASP 2014 Award for Excellence in Pain Research and Management in Developing Countries under the Basic Science research category received at the 15th World Congress on Pain, Buenos Aires, Argentina, October 2014. (IASP- International Association for the Study of Pain)
3	Prof. D Sriram	UGC Research Award 2013
4	Prof. D Sriram	Shri B. K. Birla & Smt. Sarala Birla Chair Professor, 2011

**Doctoral / post doctoral fellows**

SL No	Research Scholar	Award/Recognition Received
1	Mr.M.Gangadhar	<ol style="list-style-type: none"> <li>Received 'GREAT AWARDS FOR GREAT MINDS' under junior researcher category from UGO BASILE-Italy, on 26th June 2014.</li> <li>Received travel grant award letter from International Travel Support (ITS) section of Dept. of Science &amp; Technology (DST) Delhi and from Council of Scientific &amp; Industrial Research (CSIR) Delhi.</li> </ol>
2	Mr.Suman.L	<ol style="list-style-type: none"> <li>Awarded International Travel Award by Indian Council of Medical Research (ICMR), Govt. of India to present a paper at AAPS Annual Meeting and Exposition 2014, San Diego, USA. Nov' 2014.</li> <li>Awarded International Travel Award by Centre for International Co-operation in Science (CICS), Govt. of India to present a paper at AAPS Annual Meeting and Exposition 2014, San Diego, USA. Nov' 2014.</li> </ol>





3	Mr.Praveen Kumar.M	<p>1.Awarded International Travel Award by Indian Council of Medical Research (ICMR), Govt. of India to present a paper at Biomaterials International 2015, Kenting, Taiwan. Jun' 2015.</p> <p>2.Awarded International Travel Support (ITS) Grant by Science and Engineering Research Board (SERB), Dept. of Science and Technology, Govt. of India to present a paper at AAPS Annual Meeting and Exposition 2014, San Diego, USA. Nov' 2014.</p> <p>3.Awarded International Travel Award by Indian Council of Medical Research (ICMR), Govt. of India to present a paper at AAPS Annual Meeting and Exposition 2014, San Diego, USA. Nov' 2014.</p> <p>4.Awarded International Travel Award by Centre for International Co-operation in Science (CICS), Govt. of India to present a paper at AAPS Annual Meeting and Exposition 2014, San Diego, USA. Nov' 2014.</p> <p>5.Graduate Student Travel Award sponsored by Formulation Design and Development (FDD) section, AAPS Annual meeting and Exposition, San Antonio, TX, USA, NOV' 2013.</p>
4	Ms. Rukkaiya Khan	<ol style="list-style-type: none"> <li>1. UGC-Manf Scholarship for 5 years (2011-2016)</li> <li>2. Travel grant from CSIR and ICMR in 2012 for attending international conference</li> </ol>

Students: None

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

Name of Event	Dates	Type	Funding	No. of Participants
National Symposium on Current Trends in Pharmaceutical Sciences	17-Nov-12	National	Sponsorship money from suppliers	50
Current Trends in Pharmaceutical Sciences	Nov 12-13, 2011	National		160
Molecular Modeling and Drug design	18-Nov-12	National		50

**31. Code of ethics of research followed by the Department.**

Department follows code of ethics specified by Institute.



**32. a) Student profile programme-wise:**

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
<b>2010</b>					
B. Pharmacy	14662	16	09	100%	100%
M. Pharm. With specialization in Pharmaceutics	4428	08	02	100%	100%
M. Pharm. With specialization in Pharmaceutical Chemistry		06	03	100%	100%
PhD	425	11	04	100%	100%
<b>2011</b>					
B. Pharmacy	12880	09	13	100%	100%
M. Pharm. With specialization in Pharmaceutics	4571	08	07	100%	100%
M. Pharm. With specialization in Pharmaceutical Chemistry		09	04	100%	100%
PhD	461	04	06	100%	100%
<b>2012</b>					
B. Pharmacy	15714	09	05	100%	100%
M. Pharmacy	4825	00	03	100%	100%
M. Pharm. With specialization in Pharmaceutics		06	04	100%	100%
M. Pharm. With specialization in Pharmaceutical Chemistry		02	04	100%	100%
PhD	1173	06	03	100%	100%
<b>2013</b>					
B. Pharmacy	15120	01	01	100%	100%
M. Pharm. With specialization in Pharmaceutics	5549	05	03	100%	100%
M. Pharm. With specialization in Pharmaceutical Chemistry		02	00	100%	100%
PhD	964	02	03	100%	100%
<b>2014</b>					
B. Pharmacy	18717	04	05	100%	100%
M. Pharm. With specialization in Pharmaceutics	5172	01	05	100%	100%
PhD	773	01	01	100%	100%



### 33. Diversity of students\*

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M. Pharm	100%	0%	0%	0%
M. Pharm (Pharmaceutics)	5%	30%	65%	0%
M. Pharm (Pharmaceutical Chemistry)	5%	30%	65%	0%
Ph.D.	5%	30%	65%	0%

\* These are approximate number. We do not maintain this data.

### 34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

We do not maintain this data. On an average approximately 25% students might be qualifying GPAT.

### 35. Student progression\*

Student progression	Percentage against enrolled
UG to PG	Approx 55%
PG to M.Phil.	NA
PG to Ph.D.	Approx 40%
Ph.D. to Post-Doctoral	Approx 60%
Employed	
☐ Campus selection	40%
☐ Other than campus recruitment	5%
Entrepreneurs	0%

\* These are approximate number. We do not maintain this data.



**36. Diversity of staff**

Percentage of faculty who are graduates	
of the same university	20%
from other universities within the State	
from universities from other States from universities outside the country	80%

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period : None****38. Present details of departmental infrastructural facilities with regard to**

- Library: Institute has a central library facility with around 1618 books related to the area of Pharmacy and allied areas.
- Internet facilities for staff and students:
- The department has a leased line of 249 Mbps to cater to the needs of the students and staff. All the faculty cubicles and hostel rooms are connected to internet.
- Students' laboratories: 9 in number housing all necessary equipment and instruments necessary for course work .
- Research laboratories: 4 in number including a state of art animal facility. The laboratories house instrument/ equipment like. Some of this research instruments are centrally located in Central Analytical Laboratory.
  - Multi-mode plate reader
  - Small volume spectrophotometer
  - UV-Visible spectrophotometer
  - Spectrofluorimeter
  - HPLC systems
  - Flash chromatography systems
  - LC-mass spectrometry
  - Atomic absorption spectrometer
  - Gas chromatography system
  - Flame photometer
  - Differential scanning calorimeter
  - Thermogravimetric analyzer
  - Particle size analyzer
  - Texture analyzer
  - CHNS/O Analyzer
  - Fourier transform infrared spectrophotometer
  - Franz diffusion cell apparatus
  - Ultra sonicator
  - Tablet punching machine
  - Multi-purpose equipment



- Dissolution apparatus
- Stability chamber
- Orbital shaking incubator
- Hot air oven
- Tray dry oven
- Sherrington kymograph machine
- Actophotometer
- Plethysmometer
- Spirometer
- Eddy's hot plate apparatus
- Projection microscope
- Cooks-pole climbing apparatus
- Elevated pulsmaze
- Analgesiometer
- Digital tele thermometer
- Randel selitto apparatus
- Multiple configuration animal closure
- Microwave reactor
- Rotary evaporator
- Fuming hoods
- Immersion cooler
- Biosafety cabinets
- CO2 incubators
- Upright fluorescence microscope
- Centrifuge
- Autoclave
- Western blotting unit
- Protein and nucleic acid gel electrophoresis system
- Gel documentation system
- RT-PCR
- Thermal cycler
- Epi-fluorescence microscope
- Automatic tissue processor
- Microtome
- Cryotome
- Gaseous anesthesia system
- Refrigerated centrifuge
- -80°C freezer
- -20°C freezer
- Freeze drier



**39. List of doctoral, post-doctoral students and Research Associates None**

a. from the host institution/university

Mr. Shailender Joseph
Mr. M. Gangadhar
Omkar Swami M
R.Reshma Srilakshmi
Shubhmita Bhatnagar

b. from other institutions/universities

G.Sudeep Kumar
Mr. Srikanth Racharla
Mr. V.V.V.S.Poorna Chandra Rao
Mr. Brahmam
Ms. Radhika.N
Mr. Suman Labala
Priyanka S
Padma Sridevi J
Bobesh K Andrews
Santhosh kumar.S
Preeti Kumari
Hasitha Shilpa A
Anup Jose
Trivedi Prakruti. H
R.S.Vishnu Kiran
Mary Priyanka.U
Shubham Dwivedi
M.Prasanthi
M.Nikhila
Rimpy Diwan
Himanshu Bhatt
M.suresh Babu
Pushkar Kulkarni
Kiran Kumar Alluri
Sridhar Jogula
Parameswar Reddy A

**40. Number of post graduate students getting financial assistance from the university.**

100% students get the financial assistance from the university either as 40% fee waiver and/or Rs.10200 stipend per month.



**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

The department is planning to come up with new programme called B. E. Pharmaceutical Engineering in collaboration with Chemical Engineering, Biological Sciences and Mechanical Engineering Departments of the Institute.

We visited the industry to find out the unmet industry need in the area of process optimization and validation. Based upon feedback of industry we have designed the curriculum and we will again be industry experts to seek their feedback.

**42. Does the department obtain feedback from**

**faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

We have a Departmental Committee on Academics (DCA) constituted every year. The committee takes feedback from all the faculty members regarding modifications of existing courses, addition of new courses, deletion of existing courses. The faculty also discuss as to how current teaching pedagogy can be improved in courses by way of case studies, new experiments etc. We also have class committees for each year of students and these committees meet twice in a semester.

**students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

We have a 24x7 online feedback wherein a student can give feedback. Apart from this we do collect feedback in a very methodical way once in a semester using questionnaires. We also have an informal way of collecting feedback wherein Instruction Division of institute talks to the students taking up a course. All these feedbacks are entirely anonymous and identity of student is not revealed.

All the feedback are shared with faculty member and Head of the Department who further takes up the matter in Departmental Committee on Academics (DCA) to take a corrective action.

We also have class committees for each year of students and these committees meet twice in a semester.

**alumni and employers on the programmes offered and how does the department utilize the feedback?**



Placement unit collects feedback about students from all the employers after campus selection process and the feedback is shared with Department.  
We also seek feedback from alumni whenever they visit campus or when they come for alumni meets.

**43. List the distinguished alumni of the department (maximum 10)**

Being a very new campus, only 4 batches of students have passed out. While a lot of our students are pursuing higher studies in reputed universities in India and abroad or are placed in good companies, we can't call them distinguished alumni as of today.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- Presenter: Ram Nyshadham (ex BITSian - 1982 batch)  
Title of Talk: Role of Pharmaceutical Development (PD) Manager in Adding Value to Overall Drug Development of NCEs on Oct 14, 2011
- Presenter: Dr. Lakshmi P. Kotra, Associate Professor in Leslie Dan Faculty of Pharmacy, University of Toronto, Canada  
Title of talk: Drug discovery in infectious diseases in academia Date: 13th Feb" 2012
- Presenter: Dr. HG Kruger, Professor at University of Kwazulu-Natal, Durban, South Africa.  
Title of talk: Research Interests of the Centre for Catalysis and Peptide Research Group in UKZN  
Date: 29th Feb" 2012
- Presenter: Dr. Jeronimo Lameira Silva, faculty at Federal University of Para, Belem, Brazil.  
Title of talk: Computational Chemistry Method used by UFPA, Brazil Date: 2nd Mar" 2012
- Presenter: Dr. Ganesh Cherala, Assistant Professor, College of Pharmacy, Oregon Science and Health University, USA  
Title of talk: Fetal Programming of Drug Pharmacokinetics Date: 13th April, 2012
- Presenter: Dr. Vinay Bansal, Research Advisor, Merck and Ranbaxy  
Title of talk: Drug Discovery: A Science or Luck Date: 05th Sep" 2012
- Presenter: Dr. K. Sumathy, Head of R&D at Bharat Biotech Int. Ltd.  
Title of talk: Challenges in Development of Novel Biologics: BH005 a case study  
Date: 07th Sep" 2012
- Presenter: Dr. Isaeva, Bogomoletz Institute of Physiology.  
Title of talk: Regulation of neuronal excitability, synaptogenesis, and synaptic plasticity by sialic acids  
Date: 07th Nov" 2012
- Presenter: Dr. Luís Constantino, Faculdade de Farmácia da, Universidade de Lisboa





Title of talk: Antimycobacterial pyrazinoates with improved plasma stability  
Date: 26th Nov<sup>th</sup> 2012

- Presenter: Dr. Ramesh Panchagnula, Vice-President, site head, Nektar Therapeutics.  
Title of talk: Bollywood, cricket and knowing the unknown in drug discovery.  
Date: Nov' 29th 2012

- Presenter: Dr. Omathanu Perumal, Associate Professor, South Dakota State University, USA.

Title of talk: From unknown to known and known to unknown.

Date: Dec' 11th 2012

- Presenter: Dr Anu Puri, National Cancer Institute, Maryland, USA

Title of talk: Development of Lipid-Based Nanoparticles for Targeted Delivery of Cancer Therapeutics

Date: 19th March 2013

- Presenter: Dr Subhrakanti Chakrabarti, Shantha Biotechnics Ltd., Hyderabad

Title of talk: Development, scale-up, validation and manufacturing of recombinant human erythropoietin

Date: 13th April 2013

- Presenter: Dr Undurti N Das, Director, KIMS Foundation and Research Centre

Title of talk: Is type 2 diabetes mellitus a disorder of the brain?

Date: 27th Sep 2013

- Presenter: Dr Usha Raman, Head, Department of Communication, University of Hyderabad

Title of talk: Tools and techniques of technical communication

Date: 1st Oct 2013

- Presenter: Dr J. Narashima Murthy, Kakatiya University

Title of talk: Peptide amphiphiles as building blocks for bio-nanomaterials

Date: 21st Nov 2013

- Presenter: Prof. Joga Rao Gobburu, University of Maryland, USA

Title of talk: Impact of Pharmacometrics on Drug Development

Date: January 24, 2014

- Presenter: Dr Somali Misra Burgess, PRO Consultant, USA

Title of talk: Introduction to Patient Related Outcomes and Regulatory Considerations

Date: April 11, 2014

Name of Event	Dates	Type	Funding	No. of Participants
National Symposium on Current Trends in Pharmaceutical Sciences	17-Nov-12	National	Sponsorship money from suppliers	50
Current Trends in Pharmaceutical Sciences	Nov 12-13, 2011	National		160
Molecular Modeling and Drug design	18-Nov-12	National		50

**45. List the teaching methods adopted by the faculty for different programmes.**

Black Board, Power Point, Video presentations, Practical Labs, Inter-campus telepresence classes, External visits to Industries, Scientific excursions.



**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Departmental Committee on Academics (DCA) and class committees meet at least twice in a semester to assess all the courses. Moreover, each course of a programme has an objective that is clearly defined. We also ensure that course objectives are met.

**47. Highlight the participation of students and faculty in extension activities.**

BITS-Pilani has a deep rooted culture of extension activities and our department is also an integral part of the institute's extension activities. There are many community development activities and initiatives in which our students are involved, especially through such organizations as SCIO, NIRMAN, INACTUS, NSS, etc. These organizations are involved in several extension and outreach activities involving underprivileged children, women, senior citizens and projects dealing with education, relief work, adult literacy, health services, etc.

**48. Give details of "beyond syllabus scholarly activities" of the department.**

**ATMOS**

The Annual National Techno Management Fest of Bits Pilani Hyderabad Campus was inaugurated by Chief Guest Mr.K.T.Rama Rao, Honorable minister for Information Technology and Panchayati Raj, for Telangana state on October 09, 2014 in the institute Auditorium.

The chief guest expressed his happiness to be a part of the technological extravaganza. He stressed on improving the entrepreneurial culture among the students and congratulated BITS for its technological excellence. Professor V.S.Rao, Director spoke about the technological culture on campus that focuses on innovation and entrepreneurship.

The three day fest saw participation of 40 colleges in various technical events, competitions and workshops. Atmos-2014 witnessed a footfall of 1600 students from outside the campus.

There was a professional show performed by "Paradigm Shift" band. For the first time the inauguration of a fest was conducted in the Auditorium. It was magnificent. Atmos-2014 witnessed a footfall of 1600 students from outside the campus. The perfect balance of technical activities and informal events lit up the festival and made sure that everyone who participated had a memorable experience. For the first time, the Visual effects club has made an animated trailer for the festival which attracted and amazed the entire student body.



A total of 10 Departments worked for making this festival a grand success. The department of Sponsorship raised around 19 Lakhs in the span of a month and a half which is a commendable effort. Apart from the departments like DoSM, DePP, Dove, DoPY, DoSH, Controlz, Informalz and Arts n Deco which especially made the fest look more attractive to the eye. The technical associations like Computer Science Association, Phoenix(electrical), Civil Engineering Association, Mechanical Engineering Association, Chemical Engineering Association(ACE), Mathematics Association(Axiom), Physics Association, Alchemy(Chemistry), Biology Association(Synapsis), Economics Association and Pharmacy Association(Pangea) also contributed a lot in organizing a total of 16 workshops like National Instruments workshop, Augmented reality workshop, Ansys workshop and Skyfi workshop, Cantilever workshop and many more.

Invited eminent speakers gave guest lectures. In this big event on campus, students participated under several departments to make it a huge success.

#### **Other events and invited talks**

- Presenter: Ram Nyshadham (ex BITSian - 1982 batch)  
Title of Talk: Role of Pharmaceutical Development (PD) Manager in Adding Value to Overall Drug Development of NCEs on Oct 14, 2011
- Presenter: Dr. Lakshmi P. Kotra, Associate Professor in Leslie Dan Faculty of Pharmacy, University of Toronto, Canada  
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Date: 07th Sep" 2012
- Presenter: Dr. Isaeva , Bogomoletz Institute of Physiology.  
Title of talk: Regulation of neuronal excitability, synaptogenesis, and synaptic plasticity by sialic acids



- Date: 07th Nov<sup>th</sup> 2012
- Presenter: Dr. Luís Constantino, Faculdade de Farmácia da, Universidade de Lisboa  
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Date: 26th Nov<sup>th</sup> 2012
  - Presenter: Dr. Ramesh Panchagnula, Vice-President, site head, Nektar Therapeutics.  
Title of talk: Bollywood, cricket and knowing the unknown in drug discovery.  
Date: Nov' 29th 2012
  - Presenter: Dr. Omathanu Perumal, Associate Professor, South Dakota State University, USA.  
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Title of talk: Peptide amphiphiles as building blocks for bio-nanomaterials  
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  - Presenter: Prof. Joga Rao Gobburu, University of Maryland, USA  
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Title of talk: Introduction to Patient Related Outcomes and Regulatory Considerations  
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Name of Event	Dates	Type	Funding	No. of Participants
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Current Trends in Pharmaceutical Sciences	Nov 12-13, 2011	National		160
Molecular Modeling and Drug design	18-Nov-12	National		50

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL**



**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

Following is the list of patents filed by/ granted to faculty members of department

SL No	Investigators	Title of Patent	Type of patent (National/International)
1	Yogeeswari, P.,Sriram, D., Kumar, A.S.K.	Novel N-Spiro substituted compounds.	Indian Patent 263536 (Granted on 5th Nov 2014)
2	Yogeeswari, P., Sriram, D., Madhubabu, B., Brahmam, M.,	A Compound for treating inflammatory neuropathic pain and cancer.	Indian Patent Application No. 2945/DEL/2014 (15/10/2014)
3	Saketh, D.V.S., Srikanth, V., Yogeeswari, P., Sriram, D.,	Novel compounds as modulators of AKT.	Indian Patent Application No. 5707/CHE/2014 (13/11/2014)
4	Vladimir Torchilin, Swati Biswas	Compositions for the delivery of rna and drugs into cells	US Patent publication number WO2014025795 A1 (Publication date. 13.02. 2014)
5	Torchilin, Vladimir; Biswas, Swati; Perche, Federico	Hypoxia-targeted delivery system for pharmaceutical agents	US Patent publication number WO2015/061321 (Publication date. 30.04. 2015)
6	Ralph Mazitschek, Teru Hideshima, Kenneth C. Anderson, Stephen J. Haggarty, Balaram Ghosh	Inhibitors of Histone Deacetylase	US Patent: Publication number WO2015069693A1; Application number PCT/US2014/064016
7	Mazitschek, Ralph; Ghosh, Balaram, Haggarty, Stephen J, Hendricks, James Adam, Reis, Surya A	Photo Switchable HDAC Inhibitors	US Patent: Publication number WO2014160221A; Application number PCT/US 2014/026069

The department is extremely active in research activities and each faculty member has procured research funding for projects in the various thrust areas of the department. Individual PIs are regularly publishing their work in high impact factor journals. The department has also generated national and international patents. Data pertaining to faculty publications, sponsored research projects, patents, consultancy etc., have been listed in items 1-10.

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Young faculty (average age below 40 years)</li> <li>• Sponsored research funding in the department is approximately 7 crore since 2008.</li> <li>• PhD programme is strong by 36 full time students and 6 part time students (7 PhD students graduated since 2008)</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Limited availability of space for research laboratories</li> <li>• Technology transfer is poor</li> <li>• Placements of B. Pharm. students is weak</li> <li>• Student numbers in UG programme</li> </ul>
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<ul style="list-style-type: none"> <li>• Research Publications</li> <li>• International collaborations (Indo-Sweden; Indo-Brazil-South Africa; Indo-Ukraine; Indo-UK)</li> </ul>	
<p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>• Leveraging brand name of BITS and excellent research infrastructure of Department to attract better quality of students in UG, PG and PhD</li> <li>• Collaborative research projects with industry</li> <li>• Collaborative academic programs with industry</li> <li>• Collaborative research projects with industry</li> </ul>	<p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Increasing number of students in B. Pharm program</li> <li>• Sustaining numbers of PhD students and research projects.</li> </ul>

**52. Future plans of the department.**

Academic Growth:

- Increasing number of B. Pharm and M. Pharm students
- Starting new program in BE Pharmaceutical Engineering
- Starting new post graduate program in Pharmacology

Infrastructure Growth:

- Adding new areas for laboratories to sustain growth
- Procurement of equipment/ instrument for further strengthening of laboratory infrastructure

Research Growth:

- Increasing funding with collaboration of national and international bodies
- Exploring funding from industries

**53. Any other information regarding your department which you would like to include.**

None



## HYDERABAD Campus: Evaluative Report of the Department PHYSICS

- 1. Name of the Department:** Physics
- 2. Year of establishment of the Department:** 2008
- 3. Is the Department part of a School/Faculty of the university?**  
Departments function as independent entities in the university and are not part of any school or faculty.
- 4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.).**
  - M.Sc. (Honours), Physics
  - PhD
- 5. Interdisciplinary programmes and departments involved**  
Minor in Materials Science offered in collaboration with Department of Chemical Engineering, Department of Mechanical Engineering and Department of Chemistry
- 6. Courses in collaboration with other universities, industries, foreign institutions,**  
Note: some of our structure courses like Practice School and thesis dissertation are done by our students in industries and universities outside BITS.
- 7. Details of programmes discontinued, if any, with reasons:** None
- 8. Examination System:** Semester with Choice Based Credit System.
- 9. Participation of the department in the courses offered by other departments**  
The department teaches 12 courses in other departments. These courses are: (Course Nos)  
Mathematics-I (MATH F111), Mathematics-II(MATH F112), Mathematics – III (MATH F211), Digital Image Processing (EEE F435), Information Theory and Coding(ECE F344), Electronic Devices( EEE F214), Electrical Science (EEE F111), Thermodynamics (BITS F111), Electromagnetic Fields and Waves (EEE F433), Engineering Mathematics-I (POW ZC221), Engineering Mathematics- II (POW ZC212), Engineering Materials (PE ZC231) (off-campus)



**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others).**

	Sanctioned	Filled (includes offer letters given)	Actual number
Professor	<b>Note:**</b>	1	1
Associate Professors		2	2
Asst.Professors		10	10
Others			

Note\*\*:The faculty positions for the University is broadly governed by Growth plan which also covers designation-wise breakup with a larger vision. Keeping in mind the fluidity of movement of faculty and proposed student to faculty ratio in each campus for first degree, higher degree as well as Ph.D. programmes, individual department needs are not fixed. Besides, as we are in expansion plan which calls for new programmes, courses being introduced, the demand on faculty in terms of numbers, for each department, is broadly governed by all the above factors and hence it is not possible to have a fixed number of faculty for each department. Recruitment of faculty, therefore, varies, based on departmental needs.

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of years of experience	No. of Ph.D./ M.Phil Students guided for the last 5 years
Souri Banerjee	M.Sc, Ph.D	Professor	DNA Electronics	18	0* (1)
P.K.Thiruvikraman	M.Sc, Ph.D	Associate Professor	Computational Physics, Condensed Matter Physics	16	0 (1)
Kannan Ramaswamy	M.Sc, Ph.D	Associate Professor	Nanophotonics, Nanoplasmonics, Magneto-Optics	14	0 (1)
Aravinda N. Raghavan	M.Sc, Ph.D	Assistant Professor & Head of the Department	Micro-fluidics, Polymer Nanocomposites	15	0 (1)
Meenakshi Viswanathan	M.Sc, Ph.D	Assistant Professor	Soft Lithography, Micro and nano-fluidics, Molecular nanomagnetism	11	0 (1)





B. Harihara Venkatraman	M.Sc, Ph.D	Assistant Professor	Dielectric and Ferroelectric materials, Non-linear optical materials	9	0 (1)
V. Satya Narayana Murthy	M.Sc, Ph.D	Assistant Professor	Magnetic thin films, Spintronics, Non-destructive testing of Materials	8	0 (1)
Sashideep Gutti	B.Tech, Ph.D	Assistant Professor	General Relativity, Mathematical Physics	8	0 (1)
K.V.S. Shiva Chaitanya	M.Sc, Ph.D	Assistant Professor	Quantum Optics and Quantum Information, Mathematical Physics	6	0 (1)
Asrarul Haque	M.Sc, Ph.D	Assistant Professor	Quantum Field Theory, Particle Physics	5	0
Rahul Nigam	B.E, M.Sc, Ph.D	Assistant Professor	Astrophysics, Gravitation, Theoretical Physics	7	0 (1)
Sarmistha Banik	M.Sc, Ph.D	Assistant Professor	Nuclear Astrophysics	11	0 (2)
Adonis Vasile Lupescu	M.Sc, Ph.D	Assistant Professor	Nuclear Magnetic Resonance	11	0

\* Indicates number of students who have been awarded Ph.D under the guidance of the faculty member during the last 5 years. Number in brackets indicates number of research scholars currently being guided by the faculty member.

## 12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

Professor A K Kapoor (2013-2014)

## 13. Percentage of classes taken by temporary faculty – programme-wise information

No temporary faculty

## 14. Programme-wise Student Teacher Ratio (Refer to Support document for calculation)

M.Sc (Hons) Physics: student teacher ratio = 13:1

## 15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

Two



**16. Research thrust areas as recognized by major funding agencies**

- a. Astrophysics
- b. Condensed Matter Physics
- c. Theoretical Physics
- d. Biophysics

**17. Number of faculty with ongoing/completed projects in the last five years from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

**Completed projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Formation of Dwarf Elliptical Galaxies	Dr. Rahul Nigam	UGC	5,40,000	2013-15
2	Site specific immobilization of a single DNA molecule	Prof. Souri Banerjee	BRNS - DAE	19,50,500	2011-2014
3	Investigations into the influence of rare earth ion doping on structural and dielectric properties of layered ferroelectric ceramics by adopting molten salt synthesis route	Dr. B. Harihara Venkataraman	DST	19,93,000	2010 - 2013

**Ongoing projects:**

SL No	Project Name	Principal Investigator	Funding Agency	Sanctioned Amount (Lakhs)	Duration
1	Gravitational waves from oscillations and instabilities in neutron stars	Dr. Sarmistha Banik	DST-Young scientist	14.76 lakhs	2014-2017
2	Probing the dense interiors of neutron stars via gravitational waves	Dr. Neelam Dhanda Batra	DST Women Scientist	24.03 lakhs	2015-2018
3	AC impedance measurements on two-dimensional DNA origami structures of various shapes	Prof. Souri Banerjee	CSIR	22,26,000	2013-2016
4	Investigation of Magneto-optical Effects in Composite Magneto-plasmonic Nanostructure for Sensing	Prof. Kannan Ramaswam	DST-SERB	32.7 lakhs	2013-2016



	Applications	y			
5	Study of decoherence and entanglement in Non-linear systems and their applications	Dr K V S Shiv Chaitanya	DST Fast track	14,16,000	2013-2016
6	Equation of state of dense matter for core-collapse supernovae	Dr. Sarmistha Banik	UGC - FRPS	6,00,000 (Money not released)	2 Years
7	Development of Magnetoimpedance Sensor for Biocells Detection	Dr. V. Satya Narayana Murthy	DST SERB	22.68 lakhs	Aug 2012 - Jan 2016

**18. Inter-institutional collaborative projects and associated grants received:** No funded collaborations

a) National collaboration

b) International collaboration

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.;** total grants received.

None

**20. Research facility / centre with**

- state recognition: None
- national recognition: None
- international recognition: None

**21. Special research laboratories sponsored by / created by industry or corporate bodies:**

None

**22. Publications:**

SI No.	Details	Specify number here
1	Number of papers published in peer reviewed journals (national / international)	50
2	Monographs	-
3	Chapters in Books	1
4	Edited Books	-
5	Books with ISBN with details of publishers	1
6	Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database -	45



	International Social Sciences Directory, EBSCO host, etc.)	
7	Citation Index – range / average	0-1065
8	SNIP (Range and Average)	0.2-6.39 and 1.39
9	SJR (Range and Average)	0.15-6.79 and 1.29
10	Impact Factor – range / average	0.455-14.137
11	h-index	78

**Details of the publications as per the number give above (Give details in the last five years)**

SL No	Authors	Title of the Publications	Details of the Journal	National/International	Year
1	P. Char, S. Banik, D. Bandyopadhyay	Comparative study of hyperon equations of state in supernova simulations	The Astrophysical Journal, 809 116, 2015	International	2015
2	Smruti Smita Lenka, B. Hareesh Gautham	Nucleosynthesis in neutron star crust	10.15415/jnp.2015.22009	National	2015
3	P. Char, S. Banik	Comparison of Hyperonic Equations of State for Core Collapse Supernovae Simulations	Recent Trends in the Study of Compact Objects (RETCO-II): Theory and Observation, ASI Conference Series, 2015, Vol. 12	National	2015
4	S. Banik, P. Char	Core-collapse supernova simulation using Lambda hyperon EoS with density-dependent couplings	DESY-PROC-2014-04, DOI:10.3204/DESY-PROC-2014-04/115	International	2014
5	S. Banik, M. Hempel, D. Bandyopadhyay	New hyperon equations of state for supernovae and neutron stars in density dependent hadron field theory	The Astrophysical Journal Supplement, 214 22 (2014)	International	2014
6	P. Char, S. Banik	Massive neutron stars with antikaon condensates in a density-dependent hadron field	Phy RevC90, 015801 (2014).	International	2014



		theory			
7	S. Banik	Probing the metastability of a protoneutron star with hyperons in a core-collapse supernova	Phy. Rev C89, 035807 (2014).	International	2014
8	S. Banik	Role of Hyperons in black hole formation	Journal of Physics: Conf. Series, 426, 12004 (2013).	International	2013
9	S. Banik, R. Nandi, D. Bandyopadhyay	Melting of antikaon condensate in protoneutron stars	Phy Rev. C 86(2012) 045803	International	2012
10	S. Banik, R. Nandi and D. Bandyopadhyay	Shear Viscosity and the nucleation of antikaon condensed matter in protoneutron stars	Phys. Rev. C84(2011):065804.	International	2011
11	J. K. Nayak, S. Banik, Jan-e Alam	Kaon and Lambda productions in relativistic heavy ion collisions	Nuclear Physics A 862-863 (2011) 286-289	International	2011
12	S. Banik and D. Bandyopadhyay	Effect of shear Viscosity on the nucleation of antikaon condensed matter in neutron stars	Phys. Rev. D82(2010):123010	International	2010
13	J. K. Nayak, S. Banik, Jan-e Alam	The "horn" in the Kaon-to-Pion Ratio	Phys. Rev. C82 (2010):024914.	International	2010
14	M. Naveen Kumar, K. V. S. Shiv Chaitanya, Bindu A. Bambah	Quantum Entanglement in Coupled Lossy Waveguides Using SU(2) and SU(1, 1) Thermo-Algebras	In press Journal of Modern Physics	International	2015
15	K.V.S. Shiv Chaitanya, S. Sree Ranjani, Prasantha K. Panigrahi, R Radhakrishnan and V. Srinivasan	Exceptional Polynomials and SUSY Quantum Mechanics	Pramana,DOI: 10.1007/s12043-014-0882-7	International	2015
16	K. V. S. Shiv Chaitanya, Sibash Ghosh, V.	Entanglement in two-site Bose–Hubbard model with non-linear	J of Mod Opts, 61, issue 17, 1409, 2014	International	2014



	Srinivasan A. S. Vytheeswaran	dissipation			
17	K. V. S. Shiv Chaitanya, Prasanta K. Panigrahi, V. Srinivasan	The Kerr medium as an SU(2) system	The European Physical Journal B, 87, 207 (1.345)	International	2014
18	K. V. S. Shiv Chaitanya	Stieltjes Electrostatic Model Interpretation for Bound State Problems	Pramana: 83, Issue 1 , 139	International	2014
19	K.V.S. Shiv Chaitanya	Algebraic Solution of Master Equations in Quantum Optics	J. of Mod Opts, 77 (2011), Issue 1, 58	International	2011
20	T.Sreecharan and K.V.S. Shiv Chaitanya	Aspects of coherent states of nonlinear algebras	J. Math. Phys. , 51, 123511 (2010)	International	2010
21	K.V.S. Shiv Chaitanya and V . Srinivasan	A generalized master equation for Janus-faced coherent states	J. Phys. A: Math. Theor. 43, 485205 (2010)	International	2010
22	K. Sathish Kumar, V. Satya Narayana Murthy, and Krishnan Balasubramaniam	Improvement in the signal strength of magnetostrictive ultrasonic guided wave transducers for pipe inspection using a soft magnetic ribbon-based flux concentrator	The Journal of British Institute of NDT 54, 217	International	2012
23	R. Dhayalan, V. Satya Narayana Murthy, C.V. Krishnamurthy, Krishnan Balasubramaniam	Improving the signal amplitude of meandering coil EMATs by using ribbon soft magnetic flux concentrators (MFC)	Ultrasonics 51, 675	International	2011
24	B. Rajesh Kannan and B. Harihara Venkataraman	Structural and dielectric properties of strontium bismuth samarium tantalate layered perovskites	Ferroelectric Letters, 42 (2015) 18-26 [Publisher : Taylor and Francis]	International	2015
25	B. Rajesh Kannan and B. Harihara	Effect of rare earth ion doping on the structural, microstructural and	Ceramics International, 40 (2014) 16365 [Publisher : Elsevier]	International	2014



	Venkataraman	diffused phase transition characteristics of BaBi <sub>2</sub> Nb <sub>2</sub> O <sub>9</sub> relaxor ferroelectrics			
26	B. Rajesh Kannan and B. Harihara Venkataraman	Influence of samarium doping on structural and dielectric properties of strontium bismuth tantalate ceramics derived by molten salt synthesis route	Journal of Materials Science : Materials in Electronics, 25 (2014) 4943 [Publisher : Springer]	International	2014
27	B. Rajesh Kannan, S. Kalidhasan, A. Santhana Krishna Kumar, N. Rajesh and B. Harihara Venkataraman	An integrated use of Biopolymer-Ceramic composites towards capacitor and environmental application	Polymer - Plastics Technology and Engineering, 53 (2014) 626 [Publisher : Taylor and Francis]	International	2014
28	Harikrishnan, Vimarsh Srivastava, Astha Sethi and Kannan Ramaswamy	Optical Absorption of a Silicon Substrate Dressed with Metallic Nanostructures: A Computational Study	Advanced Science Letters, 2014,20 (7/8/9), 1325-1330	International	2014
29	Ramaswamy, K; Mui, S; Crooker, S; Pan, X; Sanders, G. D; Stanton, C. J.; and Hayes, S. E.	Optically Pumped NMR: Revealing spin-dependent Landau level transitions in GaAs	Phys. Rev. B, 2010, 82, 085209	International	2010
30	Anne Franzen, Sashideep Gutti, Claus Kiefer	Quantum Gravitational Collapse in the Lemaitre-Tolman Bondi model with a Positive Cosmological Constant.	Classical and Quantum Gravity, 27, 015011, 2010	International	2010
31	Sashideep Gutti, Shailesh Kulkarni, L. Sriramkumar	Modified dispersion relations and the response of the rotating Unruh-DeWitt detector	Physical Review D 83:064011,2011	International	2011
32	Rahul Nigam	A Review of Conformal Field Theory in 2D	Journal of Advances in Physics, ISSN 2347-3487, Vol 6, No. 2, Nov 2014	International	2014
	Rahul Nigam	Tri-generative Stochastic	Journal of Advances in	International	2015



33		Model of Population Growth	Mathematics, ISSN 2347-1921, Vol 10, No. 2, March 2015	al	
34	Sandeep Aashish and Asrarul Haque	Average Lorentz self-force from electric field lines.	Eur. J. Phys. 36 (2015) 055012	International	2015
35	Asrarul Haque	A Simple Derivation of Lorentz Self-force.	Eur. J. Phys. 35 (2014) 055006	International	2014
36	Asrarul Haque	Causality in Classical Physics	RESONANCE June 2014. arXiv:1312.2656	National	2014
37	A. Haque and S. D. Joglekar	Causality in 1+1 Dimensional Yukawa Model-II	Pramana 81 (2013) 569-578.	International	2013
38	A. Haque and T. R. Govindarajan	Twisted Bosonization in Two Dimensional Noncommutative Spacetime	Mod. Phys. Lett. A, Vol. 27, No. 25 (2012)	International	2012
39	Astha Sethi, Pritesh Parikh, Samatha Benedict, Subimal Deba and Sourj Banerjee	Multi-Peaked Velocity Spectrum of a AC-Electric-Field-Induced Electrolytic Flow with Microelectrodes	Applied Mechanics and Materials Vols. 229-231 (2012) pp 957-960	International	2012
40	S.P.Vimal and P.K.Thiruvikraman	Automated image enhancement using power law transformations	Sadhana, Vol. 37, Part 6, pp. 739-745	National	2012
41	G. Balaji, R. Aravinda Narayanan, A. Weber, F. Mohammad	Giant magnetostriction in magnetite nanoparticles	Materials Science and Engineering B, 177, 14 (2012)	International	2012
42	A. K. Kapoor	Shape invariant rational extensions and potentials related to exceptional polynomials	<i>Int. J. Mod. Phys. A</i> <b>30</b> , 1550146 (2015)	International	2015
43	A. K. Kapoor	Shape invariant	Annals of Physics 359	International	2015





		potentials in higher dimensions	(2015) 125–135	al	
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### Conference Presentations

SL No	Authors	Title	Details of the Conference	National/International	Year
1	S.P.Vimal, G.Bharat, P.Vinod, Arshdeep Singh Takkar, P.K.Thiruvikraman	“Natural vs. Manmade scene classification using statistics of straight lines”	“All India Seminar on Space, Defence and Industrial Applications”, organized by the Institution of Engineers at Hyderabad, July 10-11	National	2015
2	Nitin Suresh, S.P.Vimal and P.K.Thiruvikraman	“Automated Image Enhancement using a modified Sigmoid function”	“All India Seminar on Space, Defence and Industrial Applications” organized by the Institution of Engineers at Hyderabad, July 10-11	National	2015
3	R. Aravinda Narayanan	Measuring Nanoscale Internal Stress Relaxation to understand unique thermomechanical properties of Polymer Nanocomposites	Fourth International Conference on Natural Polymers, Bio-Polymers, Bio-Materials, their Composites, Nanaocomposites, Blends, IPNs, Polyelectrolytes and Gels: Macro to Nano Scales (ICNP – 2015): April 10-12, 2015, Kottayam, Kerala, India	International	2015
4	S. Banik	Equation of state of neutron stars	"Interface of Numerical Relativity with Gravitational-Wave Astronomy, Neutrino Physics and High-Energy Astrophysics" at ICTS, TIFR, Bangalore, June 2013.	International	2013
5	Sruthi,V, Manav Shah, Anirudh Ramesh, Apoorva Agarwal, Shahela,	Light Trapping in Thin Silicon Substrate: Exciting Insights from Aluminum versus Gold	Surface Plasmon Photonics (SPP-7) Jerusalem, Israel	International	2015



	Devesh, Harikrishnan,Kannan Ramaswamy	Nanoplasmonics Simulations			
6	Srinivasa Rao Vutla, Prasant Pattnaik,Kannan Ramaswamy, Regalla, S.P. and M. B. Srinivas	Effect of particles and contaminants on the static response of a rectangular MEMS diaphragm due to adverse clean room environment: Simulation Studies	IEEE:Prime Asia, Vishakapatnam, India	International	2013
7	S. Banik, P. Char	Equation of state for supernova and neutron stars in a relativistic mean field model with density dependent couplings	PANIC 2014, Hamburg, Germany, August 2014.	International	2014
8	S. Banik	Equation of state for supernova simulations	Neutron Stars : A brainstorming workshop, NCRA- TIFR, Pune, November, 2014 .	National	2014
9	S. Banik, P.Char	Equation of state for core collapse supernova simulation	NEOS, Frankfurt Institute for Advanced Studies, Germany, December, 2014.	International	2014
10	S. Banik	Hyperon equation of state and core collapse supernova simulations	Nuclear Physics Meet at Institute of Physics, Bhubaneswar, India, June 2015.	National	2015
11	N. V. S. S. Seshagiri Rao, V. Satya Narayana Murthy and J. Arout Chelvane	Magnetoimpedance study on Co69Fe7Si14B10 multilayer at low frequencies	Presented in International Conference on Magnetic Materials and Applications (ICMAGMA), held in Pondicherry University, India	International	2014
12	N. V. S. S. Seshagiri Rao and V. Satya Narayana Murthy	2D micromagnetic simulations of permandur circular nanostructures	Presented in National Conference on Advanced Materials for Defense and Aerospace Applications, held at Bits Pilani, Hyderabad, India	National	2014
13	V. Satya Narayana Murthy	MFM studies on Co50Fe50 patterned magnetic nanostructures	Presented in International Conference on Nanoscience &	International	2012



			Technology, held in India		
14	Harikrishnan, Vimarsh Srivastava, Astha Sethi and Kannan Ramaswamy	Optical absorption of a silicon substrate dressed with metallic nanostructures: A computational study	National conference on Nanotechnology and Renewable Energy	National	2014
15	Srinivasa Rao, Hemanth Narsetti, Avinash Panda, Krishnan Rangan, Balaji Gopalan and Kannan Ramaswamy	Investigation of Faraday rotation of Fe <sub>3</sub> O <sub>4</sub> and core-shell Fe <sub>3</sub> O <sub>4</sub> @Au nanoparticles	National conference on advanced materials for aerospace and defense applications	National	2014
16	Rahul Nigam	Rare Marginal Decays Decay of Dyonic Black Holes Role of Magnetic Field in Structure Formation	AMMCS, Toronto, Canada  BRCORP, Kathmandu, Nepal  Massive Galaxies, AAO, Sydney	International  International  International	2013  2014  2015
17	B. Rajesh Kannan and B. Harihar Venkataraman	Trivalent Rare Earth Ion Doped Layered Ferroelectric Oxide Ceramic Materials for Electronic Storage Device Applications	8th International conference on Materials for Advanced Technologies of Materials Research Society of Singapore, Singapore	International	2015



18	B. Rajesh Kannan and B.Harihara Venkataraman	Electrical Properties of Barium Bismuth Samarium Niobate Ferroelectrics for Non-Volatile Random Access Memory Device Application	National Conference on Materials for Energy Conversion and Storage, VIT Chennai, India.	National	2015
19	B. Rajesh Kannan and B.Harihara Venkataraman	Temperature - Dependent Dielectric and Electrical Characteristics of Undoped and Samarium Doped SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> Ferroelectric Ceramics	14th Asian Conference on Solid State Ionics, National University of Singapore, Singapore.	International	2014
20	B. Rajesh Kannan and B.Harihara Venkataraman	Rare Earth Doped BaBi <sub>2</sub> Nb <sub>2</sub> O <sub>9</sub> Ferroelectrics for Memory Storage Device Applications	Indo- UK International workshop on advanced materials and their applications Nanotechnology, BITS Pilani - Goa campus, Goa, India	International	2014
21	B. Rajesh Kannan and B. Harihara Venkataraman	Microstructural and properties of undoped samarium doped bismuth niobate ferroelectric ceramics synthesized by salt flux route	International Conference on Advanced Functional Materials, NIIST, Trivandrum	International	2014
22	B. Rajesh Kannan and B. Harihara Venkataraman	Dielectric and conductivity studies on undoped and samarium doped samarium bismuth tantalate ceramic	10th National Conference on Solid State Ionics, Anna University, Kharagpur, India	National	2013
23	B. Rajesh Kannan and B. Harihara Venkataraman	Effect of samarium substitution on microstructural and properties of strontium bismuth tantalate ceramics	National Conference on Solid State Ionics and Chemistry of Materials, Anna University, Khammam, India	National	2013
24	B. Rajesh Kannan and B. Harihara Venkataraman	High temperature salt synthesis and characterization of samarium doped SrBi <sub>2</sub> Ta <sub>2</sub> O <sub>9</sub> ferroelectric ceramics	International Conference on Advanced Materials Science and Technology, Kottayam, Kerala	International	2012
25	Rajesh Kannan, S. Kalidhasan, Santhana Krishna Kumar, Rajesh and B. Harihara Venkataraman	Study of the interesting properties of Biopolymer - Strontium Nanocomposites	International Conference on Nanoscience and Technology, Hyderabad, India	International	2012
26	Meenakshi. V	Photo and Nanoscale Patterned Benchtop lithography	National Conference on Trends in Soft Matter, Anna University, Tamil Nadu, Tiruchirappalli	National	2015
27	V. Subba Rao, R. Aravinda Narayanan and Meenakshi. V	Preparation and Characterization of PVDF microfilms for microfluidic applications	International conference on Advances in Nanoscience and Nanotechnology	International	2015



28	V. Subba Rao, R. Aravinda Narayanan and Meenakshi. V	Effective microfluidic fabrication using soft lithography	International conference on Innovations and research in Nanobiopharmaceutical technology	International	2014
29	Subba Rao, B. Krishna Karthick, V. Sruthi, R. Aravinda Narayanan, and Meenakshi. V	Investigations on the effect of patterning in microfluidic channels.	National conference on advanced materials for aerospace and defense applications	National	2014

**23. Details of patents and income generated: None**

**24. Areas of consultancy and income generated:None**

**25. Faculty selected nationally / internationally to visit other laboratories / institutions industries in India and abroad**

**26. Faculty serving in National committees b) International committees c) Editorial Boards) any other (please specify)**

Faculty Name	Committee Details, Period of Serving
Prof. Souri Banerjee	<ol style="list-style-type: none"> <li>VC, Central Univ Hyderabad Nominated external expert in UGC-BSR interview since 2014</li> <li>External expert, Faculty Appraisal, Dept of Physics Kathmandu University since 2013</li> </ol>
Dr. V. Satya Narayana Murthy	<ol style="list-style-type: none"> <li>Member of Board of Studies, Jawaharlal Nehru Technological university, Anantapur, Andhra Pradesh</li> <li>Member of Board of Studies, Vasavi College of Engineering, Telangana State</li> </ol>

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Institute has University and Industry Immersion Policy as recharging strategies for faculty members.

As part of these schemes Institute sponsors interested and selected faculty members to spend 6-8 weeks in a foreign university or an industry working in the research area of faculty. This helps faculty to come up with new research ideas and also help faculty members to work on problems relevant to industry. Two faculty members from Pharmacy have benefited from these schemes.

The Teaching Learning Centre of University conducts Intensive Teaching Workshops for faculty members so that pedagogy can be improved at the University level. Apart from this faculty members are always encouraged to attend refresher courses, orientation/ training programs and workshops and financial support from Institute can be availed for the same.



For research promotion Institute has various policies like research initiation grant, additional competitive grant, seed grant and Outstanding Potential for Excellence in Research and Academics (OPERA) award.

**28. Student projects**

- percentage of students who have done in-house projects including inter-departmental projects

100% students do projects under structured study, lab and design projects. Almost all the students take up at least one project during their programmes as an elective.

- percentage of students doing projects in collaboration with other universities /industry / institute

100% students do projects with industry under the structured Practice School I and Practice School II programmes of the university

**29. Awards / recognitions received at the national and international level by**

Faculty

- 15 Invited talks in Conferences held abroad
- 6 Invited talks in Conferences in India
- Dr VSN Murthy has been chosen as a Member of Board of Studies, JNTU, Hyderabad.
- Dr R Nigam & Dr S Banik have been awarded Associateship by IUCAA, Pune.

**30. Seminars/ Conferences/Workshops organized and the source of funding (national/ international) with details of outstanding participants, if any.**

- "SERC PREPARATORY SCHOOL", was organized in the area of Theoretical High Energy Physics from June 2nd to June 28th, 2014.
- National Conference on Advanced Materials for Defense and Aerospace Applications was conducted on December 22nd, 2014.
- Outcome based Intensive teaching workshop for Madanapalle Institute of Technology and Science, Andhra Pradesh.

**31. Code of ethics of research followed by the Department.**

As per research ethics policy of the institute.

**32. Student profile programme-wise:**

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female



<b>M.Sc Physics</b>					
2010	14662	28	4	100%	100%
2011	12880	27	3		
2012	15714	25	5		
2013	15120	29	5		
2014	18717	34	2		

Name of the Programme	Applications Received	Selected		Pass percentage	
		Male	Female	Male	Female
Ph.D					
2011	461	4	0	NA*	NA*
2012	1173	1	0	NA*	NA*
2013	964	3	2	NA*	NA*
2014	773	1	0	NA*	NA*

\* All the candidates are currently pursuing their Ph.D and none of them have submitted their thesis so far.

### 33. Diversity of students:

Not maintained

### 34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Not Maintained

### 35. Student progression

Student progression	Percentage against enrolled*
UG to PG	
PG to M.Phil.	
PG to Ph.D.	20%
Ph.D. to Post-Doctoral	
Employed	80%
• Campus selection	
Entrepreneurs	NIL

\*This is the approximate data given. The department does not maintain the records for this.



### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	0
from other universities within the State	15
from universities from other States	77.5
from universities outside the country	7.5

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period:** None. All faculty members already have a Ph.D degree.

### 38. Present details of departmental infrastructural facilities with regard to

- a) Library: Department does not have its own library. Faculty members have access to the Central Library of the campus (online and offline). The library house nearly 1050 books related to Physics.
- b) Internet facilities for staff and students: Internet connection has been provided in faculty chambers, laboratories, student hostels and also faculty quarters. The institute has at present a 155 Mbps leased line which is adequate for the current strength of students and faculty.
- c) Students' laboratories: (i) Measurement Techniques Lab and Optics Laboratory for first year students which can accommodate up to 45 students at a time.  
(ii) Electricity, Magnetism and Optics Laboratory for students of M.Sc (Physics) which can accommodate upto 35 students at a time.  
(iii) Modern Physics laboratory for students of second year M.Sc (Physics) which can accommodate upto 35 students at a time.  
(iv) Advanced Physics Laboratory for students of M.Sc (Physics) which can accommodate upto 35 students at a time..
- d) **Research laboratories**  
There are three research laboratories in the department:
  - (i) **Dielectrics laboratory** which has a furnace and sputtering unit for preparation of thin films and LCR meter for material characterization. There also exists a facility for soft lithography.
  - (ii) **Scanning probe microscopy lab** which has a Scanning tunneling microscope and an atomic force microscope.
  - (iii) **Magneto-Optics lab** which houses an equipment to measure Faraday rotation, fluorescence microscope and high speed camera to capture fluid motion in micro-fluidic channels.





**39. List of doctoral, post-doctoral students and Research Associates**

a) from the host institution/university: Doctoral students: Mr. K.Ravi Teja

b) from other institutions/universities: Doctoral students:

- (i) Mr. Hemanth Narsetty
- (ii) Mr. Y.V.Subba Rao
- (iii) Mr. Seshagiri
- (iv) Mr. Krishna Prakash Nunna
- (v) Ms. Smruti Smita Lenka
- (vi) Mr. D.Nagendra Prasad
- (vii) Mr. B.Rajesh Kannan
- (viii) Mr. Veera Reddy (part-time)
- (ix) Mrs. Varalakshmi (part-time)

**40. Number of post graduate students getting financial assistance from the university.**

NA

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

The department is considering floating a new B.E (Hons) programme in Engineering Physics. Towards this, the department is actively involved in three aspects: curriculum, laboratory infrastructure and future prospects for the students.

**42. Does the department obtain feedback from**

**faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

- The department has a Departmental committee on Academics which periodically reviews the existing curriculum, taking into account the views of all faculty members within the campus as well as in other campuses of BITS,Pilani.
- Further, Faculty are encouraged to submit their comments about the curriculum to the Head of the Department. The Head of the Department will then forward their suggestions and proposals including proposals for starting new courses and programmes to the Academic & Resource Planning Division which would place it before the senate for its consideration.

**students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

- The Instruction Division collects feedback from all students registered in a course at least once in a given semester.
- Apart from this, the department also gets feedback from students about the conduct of courses during the class committee meetings. Class committees are



formed separately for each class or batch of students. The committee consists of a few representative students from the given batch and also the faculty who are teaching them. The feedback collected from students is used to bring changes to all aspects of teaching and learning.

- Feedback from the students is used to decide on elective courses, textbooks for courses

**alumni and employers on the programmes offered and how does the department utilize the feedback?**

- The institute as a whole has strong ties with both the alumni and employers through divisions such as “Alumni affairs” and “Placements” respectively. These divisions are active in incorporating feedback from these areas into the academic programmes.

**43. List the distinguished alumni of the department (maximum 10)**

Since the department started functioning only in 2008, it has a limited number of alumni, among them the following are worthy of mention:

1. Astha Sethi (UIUC) 2008
2. Kartik Iyer (Rutgers) 2008
3. Soham Pal (Iowa State) 2008
4. Pratyush (University of Nebraska-Lincoln) 2008
5. Amrutha Jaodand (University of Amsterdam) 2008
6. Sumedha Puppala (MS, North Carolina State) 2008
7. Nittala Swetha (UIUC) 2008
8. U.S. Aditya (MS, North Caroline State) 2008
9. Pritesh (UCSD) 2008
10. Kaushik (MS, Ohio State) 2008
11. Disha Gupta (NTU, Singapore) 2009
12. Saurab Verma (NUS + MIT) 2009
13. Anish Dabhin (UT, Austin) 2009
14. Ravi Teja (BITS-Pilani) 2008
15. Harshitha (IISc, Bangalore) 2009
16. Krishna Kartick (North Caroline State) 2010
17. Bharat Ravi Kumar (University of Wisconsin, Madison) 2008
18. Aravind Nagarajan (Germany) 2009

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- "SERC PREPARATORY SCHOOL", was organized in the area of Theoretical High Energy Physics from June 2nd to June 28th, 2014.
- National Conference on Advanced Materials for Defence and Aerospace Applications was conducted on December 22nd, 2014.
- Invited talk (March 14th, 2014) by Prof. Prasanta Tripathy (IIT Madras) on "STRING COMPACTIFICATIONS".



- Invited talk (March 7th, 2014) by Prof. R. Ramaswamy, Vice-Chancellor, Hyderabad Central University on “Physical perspectives in the biological sciences” from University of Hyderabad
- “Bringing stars down to a lab” by Prof. M.Krishnamurthy, TIFR on 28th February, 2015 on the occasion of National Science Day.
- “Applications of Plasmon Resonance to Bio-Sensing” by Dr. Sanjay Shrivastava, post-doctoral researcher at Ben-Gurion University, Israel.
- “Flocking of Birds” by Prof. Sriram Ramaswamy, Director TIFR centre for Interdisciplinary Sciences, Hyderabad in October 2014 during ATMOS (Student Technical Festival).
- “The Mysterious Universe” by Prof. G.Srinivasan, Former Jawaharlal Nehru Fellow Raman Research Institute (Retd), Bangalore, in March, 2011

**45. List the teaching methods adopted by the faculty for different programmes.**

The faculty members adopt teaching methods which are appropriate for the student strength in a given class.

- For the foundation course offered to first year students of all disciplines, the lecture-tutorial method is adopted to enhance the efficiency of the teaching-learning process. The foundation courses cater to about 700 students at a time. These 700 students are split into two lecture sections and 3 lectures are delivered per week. Since the lectures are delivered to a large audience, instead of the blackboard, a slide projector or tablet writer is used to increase the visibility of the writing. Demonstrations of interesting experiments and phenomena are also performed during the lectures to motivate the students and to improve their understanding of concepts. The lecture material or notes are uploaded on the course management system which students can access through the intranet.
- In addition to the three lectures per week, two tutorials per week are also conducted to clarify the doubts of the students and also to improve their problem solving skills. The tutorials classes have strength of about 60 to 70 students. Therefore it is appropriate to use the traditional blackboard for this audience. Having large lecture classes improves the quality and uniformity of the delivery of content while the tutorials complement them by contributing to an increased student-teacher interaction.
- For laboratory courses, students are supplied the instruction manuals in advance or given lectures in advance so that they can come prepared to perform the experiments in the laboratory classes.
- (iv) Students can get their doubts clarified from the faculty members by personal interaction with them during the “chamber consultation hour” which is for a minimum of one hour per week for every course. They can also get their doubts clarified through e-mail or social media.



**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Learning objectives for a course are specified in the handout and the faculty member teaching a particular course clearly specifies the topics to be covered in order to achieve these learning objectives.

The Head of the Department goes through handouts of all courses to ensure that the course coverage is commensurate with the learning objectives for the course as well as the programme. The department also collects feedback from students during the class committee meetings about any shortfall in the learning outcomes for a particular course.

**47. Highlight the participation of students and faculty in extension activities.**

BITS-Pilani has a deep rooted culture of extension activities and our department is also an integral part of the institute's extension activities. There are many community development activities and initiatives in which our students are involved, especially through such organizations as SCIO, NIRMAN, INACTUS, NSS, etc. These organizations are involved in several extension and outreach activities involving underprivileged children, women, senior citizens and projects dealing with education, relief work, adult literacy, health services, etc.

**48. Give details of "beyond syllabus scholarly activities" of the department.**

Apart from the Technical festival mentioned above, the department is involved in the following activities:

- The department celebrates National Science Day on February 28<sup>th</sup> of every year by arranging lectures by eminent scientists (both from inside and outside the campus).
- Invited talks by eminent Scientists and academicians are also arranged under the auspices of the Students' Physics Association, on topics of current research interest. Faculty members of the department also give talks at regular intervals to introduce the students to advanced topics.
- Individual faculty members use Social media like "Facebook" to bring articles of current research interest to the attention of the students. They also use social media to apprise them about career opportunities and about higher studies.
- Research publications of the faculty members of the department are put up on the notice board and also in the library for the benefit of the students.
- Research Scholars of the department give weekly research seminars.

**ATMOS:** The Annual National Techno Management Fest of Bits Pilani Hyderabad Campus was inaugurated by Chief Guest Mr.K.T.Rama Rao, Honorable minister for Information Technology and Panchayati Raj, for Telangana state on October 09, 2014 in the institute Auditorium. The chief guest expressed his happiness to be a part of



the technological extravaganza. He stressed on improving the entrepreneurial culture among the students and congratulated BITS for its technological excellence. Professor V.S.Rao, Director spoke about the technological culture on campus that focuses on innovation and entrepreneurship.

The three day fest saw participation of 40 colleges in various technical events, competitions and workshops. Atmos-2014 witnessed a footfall of 1600 students from outside the campus.

There was a professional show performed by “Paradigm Shift” band. For the first time the inauguration of a fest was conducted in the Auditorium. It was magnificent. Atmos-2014 witnessed a footfall of 1600 students from outside the campus. The perfect balance of technical activities and informal events lit up the festival and made sure that everyone who participated had a memorable experience. For the first time, the Visual effects club has made an animated trailer for the festival which attracted and amazed the entire student body.

A total of 10 Departments worked for making this festival a grand success. The department of Sponsorship raised around 19 Lakhs in the span of a month and a half which is a commendable effort. Apart from the departments like DoSM, DePP, Dove, DoPY, DoSH, Controlz, Informalz and Arts n Deco which especially made the fest look more attractive to the eye. The technical associations like Computer Science Association, Phoenix(electrical), Civil Engineering Association, Mechanical Engineering Association, Chemical Engineering Association(ACE), Mathematics Association(Axiom), Physics Association, Alchemy(Chemistry), Biology Association(Synapsis), Economics Association and Pharmacy Association(Pangea) also contributed a lot in organizing a total of 16 workshops like National Instruments workshop, Augmented reality workshop, Ansys workshop and Skyfi workshop, Cantilever workshop and many more. Invited eminent speakers gave guest lectures. In this big event on campus, students participated under several departments to make it a huge success.

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NA**

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

The department is extremely active in research activities and almost all faculty member has procured research funding for projects in the various thrust areas of the department. Individual PIs are regularly publishing their work in high impact factor journals. The department has also generated national and international patents. Data pertaining to faculty publications, sponsored research projects, patents, consultancy etc., have been listed in items 1-10.



**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

<p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• All the faculty have rich research experience in diverse fields.</li> <li>• The faculty members are versatile and offer nearly 12 courses in other departments apart from teaching the courses offered by the department.</li> <li>• Faculty regularly publish their research work in high impact peer-reviewed international journals.</li> <li>• Purely merit based admission process ensures that the students admitted to the department are of good quality</li> <li>• Sophisticated instruments available in the laboratories used for teaching M.Sc students.</li> </ul>	<p><b>Weaknesses:</b></p> <ul style="list-style-type: none"> <li>• Number of programmes offered by the department is low.</li> <li>• Funding for research through sponsored research grants is low.</li> <li>• Quality of applicants to the Ph.D programme is below expectation.</li> <li>• Research infrastructure available in the department is not comparable to the facilities available elsewhere.</li> </ul>
<p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>• There is scope for starting new programmes in areas like Engineering Physics</li> <li>• Participation of the department in the Work Integrated Learning Programmes of the University.</li> <li>• Number of Research Scholars can be increased.</li> <li>• Inter-disciplinary Research</li> </ul>	<p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Retaining faculty.</li> <li>• Motivating students to take greater interest in Physics.</li> <li>• Increasing the number and quality of Research Scholars.</li> <li>• (iv) Obtaining sponsored research grants and projects</li> </ul>

**52. Future plans of the department.**

In tune with the overall growth plan of the institute, the department plans to grow its student strength in all the programmes to 180 from the present sanctioned strength of 35 in the next 5 years. Towards this goal the following new programmes apart from strengthening the existing programmes have been envisaged and a road-map is being drawn.

- Undergraduate programme in Engineering Physics, and Renewable and environmental engineering.
- Master of Physics programme for students who have completed B.Sc. (Physics) with specialization in Advanced Materials, Econophysics, Astrophysics, and Biological Physics
- Integrated M.Sc. (Physics) and PhD programme in specialized areas for students who have completed B.Sc. (Physics).



Another important thrust is in building our research capacity through internal and external collaborations within India and abroad. Towards this goal, some experimental facilities like Scanning Tunneling microscope, Atomic force microscope, Soft Lithography, Magneto-Optics set-up etc have already been acquired. The department is in the process of acquiring an X-ray diffractometer.

The department has also applied to the Department of Science and Technology seeking funds under the FIST (Fund for Improvement of S&T infrastructure in universities & higher educational institutions) programme. If funding is provided by the DST, the department plans to acquire a small angle x-ray scattering unit under this programme.

The instruments and facilities mentioned above will be used by the faculty members of the department to undertake research in the area of Condensed Matter Physics, more specifically in the areas of micro-fluidics, magneto-optics, bio-sensors, dielectrics, plasmonics and DNA electronics. A number of students are currently working for their Ph.D on these topics.

The department also has a good number of faculty members who undertake research of a theoretical nature in the areas of Astrophysics, Gravitation and Cosmology. Some of this work is computational and computational facilities are already available in the department for this purpose.

**53. Any other information regarding your department which you would like to include.**  
**NA**

