Introduction:

- **BITS Pilani Goa campus**

BITS Pilani Goa campus has been functioning since Aug 2004. It offers eleven first degree programmes in Engineering, Science and Humanities. The institute has been offering higher degree (M.E.) programmes in Design Engineering and Biotechnology since Aug 2008 and in Embedded Systems, Process Engineering and Software systems since August 2009. Currently about 2500 students are enrolled in various degree programmes and the faculty strength is 185. The Institute has developed state-of-the-art laboratories and other research facilities and has recruited a balanced mix of enthusiastic young faculty and experienced Professors. To further the enthusiasm and potential of the faculty members, the institution has encouraged them to pursue active research in their fields of interest and to develop research proposals to generate funds from national and international funding agencies. The funds thus procured are being used in part to further develop the existing facilities. This in turn helps in training undergraduate students, starting new higher degree programmes, to carry out research in advanced areas and to provide consultancy services. Presently, 30 research projects funded by various National and International funding agencies are being carried out. Several research scholars (SRF/ JRF) have been chosen to work in these projects.

- # Thrust Areas

The Institute has identified thrust areas with the goals of achieving sustainable development and strengthen University- Industry linkage. Broadly, the thrust areas include:

- Green Technology Development
- Biotechnology
- Modeling and Simulation
- Communication and Information Technology
- Advanced Materials and Applications
- High energy physics, Astrophysics and B- physics

Promotion of Research:

The BITS education system offers several opportunities to members of faculty to pursue research in various areas and to involve students at all levels through specialized projects. Research in the institution is promoted through various means, such as

- Faculty development scheme
- First degree & higher degree research programme
- Sponsored research projects by National & International agency
- Consultancy services

Faculty Development Scheme

The faculty members, recruited as Lecturers, possessing post graduate degrees, such as M.E., M.Tech, M.Phil. degrees are offered opportunities to pursue their Ph.D.degree programmes, after qualifying the Ph.D. Qualifying Examination (PHQE), conducted by RCEDD, BITS, Pilani Goa Campus. The qualified candidates are required to submit research proposal for the approval of the research board at BITS Pilani. Faculty member under the scheme is awarded the scholarship to cover tuition and admission fees. Each faculty member can avail Institute's annual contingency grant up to Rs.12000/- for covering professional expenses. Presently, 37 candidates (including faculty members and research scholars) are pursuing Ph.D. programmes in their respective disciplines. Details of faculty members and research scholars, their research topic and supervisor are given in **Annexure I**.

Pre-Ph. D. course work

Faculty members, staff members and research scholars/associates under projects, with qualification as M.Sc., MBA, B.E. etc., and with sufficient professional experience are recommended for undertaking pre-Ph.D. course work. On successfully completing the prescribed course work under the supervision of a designated mentor, the candidate becomes eligible to write Ph.D. qualifying examination. Presently, 15 candidates are pursuing their pre-Ph. D. course work. The details are given in **Annexure II.**

Ph.D. Qualifying Examination in March and November 2009

In 2009, Ph.D. qualifying examination was conducted at the campus during 19-21 March 2009 and 05-07 November 2009. 10 candidates, including members of faculty and research staff have passed the examination. Details of qualified candidates are given in **Annexure III**. The candidates are encouraged to choose thrust areas for their research.

Research at Student Level

Every semester, the students of first-degree programmes opt for project courses (as elective courses), under the supervision of faculty Instructors. These courses aim at developing skills and capability for undertaking lab oriented experimental work, computer oriented software based application development and testing, advance study pertaining to research problems at hand. About 300 students opt for these courses every semester in various disciplines. Senior undergraduate students have the choice of doing research for a semester and submit a thesis under the guidance of expert faculty. The details of the first degree theses completed in this year are given in **Annexure IV**.

Students Contribution

The students of first degree programmes also opt for the industry oriented internship programmes, called Practice School-I and Practice School-II. Practice School-I of two month duration is offered to students after completing first two years of their programmes while Practice School-II is of five and half month duration offered to students in their final year. During the tenure of these courses, the students carry out industry related work assignments in respective industries, under the supervision of faculty Instructors. Often these assignments lead to consultancy assignments. Thus students also participate in consultancy oriented work at Practice School Centers. Students are encouraged to present results of their work in the Conferences, Seminars, Symposia and Training Programmers, organized on campus as well as elsewhere. Every year a techno-fest is organized by students, in which the students exhibit remarkable and ingenious models based on the latest advances in science and technology. The details of the students who are attending conferences / scientists' interactions and participations in National level project competitions are presented in **Annexure V.**

As a part of the Higher Degree programme students are required to complete the courses Professional Practice I and Professional Practice II. The Details of the same is given in the **Annexure VI**

Sponsored Research

Faculty members are encouraged to submit research proposals to various funding agencies for sponsored research projects. The research for the sponsored projects is carried out by recruiting special purpose staff, as provided under the project and faculty members who are pursuing research. Till date, many faculty members have obtained research funds from various research agencies including Department of Science and Technology, DRDO, CSIR, Ministry of Chemicals and Fertilizers, Govt. of India, Swedish Research Council, etc. The ongoing projects include 30 sponsored research projects, in different research areas viz Bio-Nano Technology, Environmental Bio-technology, Radio Astronomy, Biosensors & Bioanalysis, Membrane separations, Semiconductor Physics and Materials, New Energy , Environmental Management etc. The details of sponsored research project are given in **Annexure VII**. The details of the projects under review are also given **Annexure VIII**.

Appointment of SRF's and JRF's in various sponsored research projects is being done by a committee appointed by the Director and a nominee from the respective funding agency. The details of the SRF's and JRF's involved in various projects are given in the **Annexure IX**.

Expertise and Facilities:

Research Areas / Expertise

The Institute through its intense faculty recruitment drive has been constantly adding manpower at the senior level to provide leadership for R&D and at junior level to provide research work force. As a result of this effort, a number of faculty members at both these levels have joined this year.

Several faculty members in engineering as well as science disciplines are engaged in research in various areas including biotechnology, flexible manufacturing systems, advance separation techniques, energy and environmental management, data mining, fiber optics, computer aided

analysis and design, digital electronics, VLSI and embedded systems, robotics and intelligent systems, image processing, power electronics, nanotechnology materials science, etc. Details of expertise and areas of research interest of faculty members engaged in research & consultancy are given in **Annexure X**

Laboratory Development

The laboratory development has been guided by the need to strengthen academic and research facilities. The academic and research activities are well supported in various laboratories by existing facilities in the labs for engineering, science and humanities disciplines. All laboratories are fully equipped with advanced equipments / instruments, computational facilities and internet connection. **Annexure XI** gives discipline wise existing laboratory facilities at BITS-Goa.

BITS Connect

A campus wide local area network (LAN) is the outcome of the BITS Connect project, having an outlay of about Rs.7crores ($1.5 million). The project was jointly led by BITS alumni and BITS Pilani. The project has provided a state-of-the-art campus-wide network. This has resulted in a Gigabit backbone, broadband access, telephones and video conferencing capability (IP telephony). The network access is available in library, all hostel rooms, class-rooms, lecture theatres, staff quarters and guest house. The LAN has facilitated online access to several e-journals in various disciplines.

Extension Activities / Programmes / Events

Consultancy Projects and Services

The Faculty members of the institute are involved in National / International consultancy projects and services. The details of consultancy work completed / undertaken are given in **Annexure XII**

Promotion of Consultancy Services

Research and Consultancy Division of the BITS Pilani Goa campus has initiated an effort to Institutionalize the professional consultancy services to the industry and academia. As a part of this effort RCEDD has published the consultancy brochure, which highlights the human

resources and some of state-of-the-art infrastructure available at the campus in various fields of engineering, sciences, humanities and management. The professional consultancy services that our faculty might provide to an organization have been consolidated and categorized in the brochure.

In addition to the publication of consultancy brochure a team of faculty members visited Goa Chamber of Commerce and Industries (GCCI) and Goa Small Scale Industries Association (GSIA) presented the research and consultancy capabilitied of the BITS-Pilani, Goa Campus. The details are mentioned below:

- The RCEDD Faculty in Charge, Dr. S.D. Manjare along with Dr. Sunil Bhand, Dr. Srinivas Krishnaswamy and Dr. K. Prakash Chudalayandi met with the Management Committee of the Goa Chamber of Commerce and Industries (GCCI) including the President of the GCCI and the Director General of the GCCI at GCCI, Panjim on Oct 7th 2009. This was arranged with the objective of presenting the faculty expertise and consultancy services that BITS Pilani Goa might provide to the industries.
- The RCEDD Faculty in Charge, Dr. S.D. Manjare along with Dr. Utpal Roy, Dr. Srinivas Krishnaswamy and Dr. K. Prakash Chudalayandi met with Executive Committee of the Goa Small Scale Industries Association (GSIA) on Nov 7th at GSIA, Panjim.
- The GSIA has published a two page summary of the research and consultancy activities of BITS Pilani Goa Campus in their newsletter.

Conferences / workshop/ Events organized

Various groups organized National / International conferences / workshops details of which are given below:

- National Conference on Anaerobic Digestion and Renewable Energy through Microbes (ADREMS) (13 -15 January 2009)
- Workshop on DST fast track project in Physics and Mathematical Sciences (21 - 22 September 2009)
- Intensive workshop on Scientific Computation (21 – 25 July 2009)
- Workshop on Application of Advanced Tool/Techniques in Research (6 - 7 March 2009)

Engineer's Day Celebration

Engineer's day was celebrated on September 15th 2009 at BITS-Pilani, Goa campus with the theme "**Engineering Solutions to Combat Climate Change"**. On this occasion, the institution organized poster presentations and seminar. Mr. L.M. Chandrasekaran, Vice President-Operations, Zuari Industries Ltd. (Fertilizer Division) at Goa was the chief guest of the function. Prof. Raman, Director BITS-Pilani, Goa Campus, addressed the gathering on this occasion. The poster presentation session was inaugurated by Dr. Atanendu Sekhar Mandal, Senior Scientist, CEERI, Pilani. Dr. Mandal delivered a seminar on "Perception and Cognition Engineering" - Frontiers of New Research and the National Programme on Perception Engineering. Faculty members, Dr. S.D. Manjare, Dr. Sunil Bhand, Dr. M. Shrikant, Mr. P. V. Rao, and Ms. A. Sacithra delivered seminars on various aspects of the theme. Mr. Shreedhar Babu, Nucleus member RCEDD, was the co-coordinator of the function. Mr. Akhil Mehta, President, Students Council, and his team members were involved the making this function successful. Winners of poster presentation received awards.

Research Collaboration

The Institute has research collaboration with Institutions in India and abroad.. The details are as follows:

National Level

- Anna University, Chennai & IISc Bangalore (Bioremediation)
- IIT Roorkee (Aptamer Design)
- IIT Delhi (micro fabrication)
- National Centre for Antarctic and Oceanic Research, Goa (Bioprospecting)
- Defence Lab, Jodhpur & University of Hyderabad (nonmaterial's & biotechnology)
- NDRI, Karnal & Punjabi University, Patiala (biotechnology)
- Institute of Mathematica Sciences,Chennai.
- Center of Theoretical Physics,IISc,Bangalore.
- Physical Research Laboratory,Ahmedabad.

International Level

- Centre for Environmental Research, Leipzig, Germany (Bioremediation)
- Lund University, & Linkoeping University Sweden (Biosensors & Nano electronics)

- University of Leeds, UK & IAEAC, Switzerland (Biosensors)
- ENSIL, France (Nanomaterials)
- University of Lisbon, Portugal (Membrane Technology)
- University of Oregon,Oregon,USA
- University of Kansas,Kansas, USA

Short Term Research Training for Scientists/ Academicians from Developing Countries (Centre for Cooperation in Science and Technology* (*CCSTDS) Fellowship Programme)

To pursue short-term research training in Indian centers of Excellence, ***CCSTDS*** among developing societies, Chennai, India, operates fellowship programmes for developing country scientists/researchers. On their request to host such training program for young scientist/academicians at BITS Pilani Goa Campus the list of broad areas and mentors was sent along with the consent to host such training prograNmme at the campus

Under this fellowship programme, CCSTDS takes care of travel, boarding and lodging and other related expenses for the selected candidate. The host institution is supposed to provide research training and accommodation at a nominal rate.

Mr. Chinthan Hemapa Manoratne, from Srilanka, completed 3 months research training, under this fellowship, in Nanomaterials area under the supervision of Dr. N. N. Ghosh of chemistry group. The details are mentioned below.

The details of the students working under exchange progarmme are as follows:

Name	**Country**	**Mentor/Supervisor**	**Work Completed**	**Sponsoring Agenecy**
Mr. C. H. Manoratne	Materials Technology Section, Industrial Technology Institute, Bauddhaloka Mawatha Colombo 07, **Sri Lanka**	Dr. N. N. Ghosh, Assistant Professor, Chemistry Group	Synthesis and characterization of Ag/TiO_2 nano composite for photocatalysis applications	CCSTDS, Chennai, India

Exchange programme

As a part of exchange programme under the MoU signed between University of Ontario, Canada and Birla Institute of Technology and science, Pilani, the follwoing undergraduate students from Queen's University, Canada, completed the assigned courses.

Sr. No	Name	Country	Mentor/Supervisor	Work Completed
1	Mr. Derak Chow	Mining Engineering Department Queen's University Kingston, Canada	Dr. Teny John	Courses on musical, Journalism, International Business and Numerical Analysis
2	Mr. Mark Camball		Dr. Teny John	

Publications

Faculty members from various disciplines have published several research papers in reputed national, international journals and various conferences. The details of the number of publications are given below. The publication details are given in annexure no. XIII – XVIII.

Sl. No.	Journal / conferences / Books	No. of papers
1.	Papers -- Journals	48
2.	Papers – Conferences	11
3	Books	05

Awards/ Honors/ Recognition

Faculty members have received awards/ recognition from reputed International / National organizations. The details are as follows.

Dr. Meenakshi Raman

1. Received Ray Tongue Scholarship award (£300) for presenting paper in Aberdeen, Scotland by IATEFL (International Association for Teachers of English as a Foreign Language), Dec.2006
2. Received British Council Award for Best Paper Presenter by ELTAI (English Language teachers' Association of India) , Feb.2007
3. Received ACU (Association of Commonwealth Universities) Bursary for attending the 2nd international conference in Durban, South Africa during 14-16 July 2008
4. Appointed as Expert Member of Selection Committee under CAS, The English and Foreign Languages University, Hyderabad, October 2009.
5. Member of Editorial Group, Asian EFL Journal, ISSN 1738-1460, Time Taylor International Ltd., Sydney, Australia (30.11.08)

6. Delivered Inaugural address and a plenary talk on 'Soft Skills : Shifting Paradigms and Emerging Trends in Technical Education' at RC Patel Institute of Technology, Shirpur, Maharashtra, 14-15 March 2009
7. On invitation, conducted 15 workshops in institutions across India on Interviews, GDs and Presentations March 2009.
8. One of the facilitators for the BITS Vision 2020 / Mission 2012 workshop for faculty at Goa Campus

Dr. D. M. Kulkarni

1. Ambassadorship of American Society of Mechanical Engineering (ASME) for Online Campus, INDIA given by American Society of Mechanical Engineering (ASME) (June-2009)
2. Rashtriya Gaurav Award given by India International Friendship Society, INDIA(July-2009)

Dr. Ranjan Dey

1. Nominated for Life Membership in the National Academy of Sciences India(NASI)

Dr. N. N. Ghosh

1. Member Expert in Chemistry for selection of candidates for Commonwealth Scholarship, UK 2008 and 2009
2. Visiting Scientist Fellowship by "The Scientific and Technological Research Council of Turkey (TUBITAK)" 2006 and 2009
3. Outstanding Scientist of 21st Century medal: presented by International Biographical Center Cambridge UK 2005
4. Best Poster paper award "A Simple Chemical Technique For Synthesis Of High Surface Area Mesoporous Silica Matrix And Iron-Oxide Incorporated Silicates" International Congress of Environmental Research (ICER 08) 2008
5. Invited as Chairperson (for NANO-O9 and NANO-11Sessions) in the 16th International Conference on Composites or Nano Engineering, ICCE-16, July 20-26, 2008 in Kunming, China.
6. Travel Grant Awards received to attend International Conference from
   (i) Council for Scientific and Industrial Research (CSIR) New Delhi,
   (ii) Department of Science and Technology (DST), India 2008

(iii) Indian National Science Academy.

7. Biography has published in several Who's Who in Science and Engineering from USA, UK

Dr. Sunil Bhand

1. Invited as the India representative in 2008 and 2009. For the events by Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research – BMBF, Germany)' .
2. Invited Key note speaker, Bio-MEMS at 1st Indo-German Forntiers of Engineering Symposium organized by Alexander von Humboldt Foundation Germany and DST India 2009.
3. Visiting Scientist Fellowship from SIDA Sweden at Lund University Sweden for summer 2005, 2006,2007 and 2008
4. Invited as Expert for the selection of World Bank funded project under NAIP at Mumbai 2008-09
5. Travel grant from ICAR & The World Bank for conference presentation in UK 2009

Dr. Iven Jose

1. Young Scientist award from "Microsoft Research Lab" for the performance in the field of Optical Imaging
2. Presented a paper at "SPIE-Photonics West, SANFRANCISCO , California, USA between 23rd to 28th JAN 2010 on the topic " Early detection of Cancer using NIR Optical Imaging.

Course Material Development

The faculty members are encouraged to undertake publishing books, and other literature. Faculty members at BITS Pilani-Goa have developed various course materials and laboratory manuals (annexure XIX). EDD Notes / course handouts which are printed at BITS Pilani-Goa are given in annexure XIX

Annexure I

DETAILS OF Ph.D CANDIDATES

S.No.	Name & I.D. No.	Supervisor/Mentor	Topic
1.	V.K. Deshpande 1990PHXF408	S.D. Manjare	Failure analysis of thermosyphon solar hot water systems on account of scaling
2.	Kanchanmala Deshpande 2003PHXF015	Sunil Bhand	Novel biosensor techniques for environmental analysis of pesticide & heavy metals.
3.	Vikas Vinayak Chaudhari 2004PHXF446	D.M. Kulkarni	Study of Fracture Behaviour in General Yielding Fracture Mechanics.
4.	Waigaonkar Sachin D. 2004PHXF447	B.J.C. Babu	Experimental Investigations and Modeling of Rotational Molding of Plastics and Compression Molding of Composites
5.	Abhishek Kumar 2004PHXF448	Shibu Clement (Proposed)	Modeling, analysis& evaluation of electroplating system.
6.	C. Phaneendra Kiran 2004PHXF449	Shibu Clement (Proposed)	Modeling, analysis & concurrent engineering (CE) design of mechotronic system.
7.	Varinder Singh 2004PHXF450	Prasanta Dev	Development of a structuring system using total engineering approach.
8.	P. Venkateswara Rao 2005PHXF426	S. S. Baral	Optimising the Anaerobic Digestion of Sewage Sludge for Increased Biogas Production.
9.	CH.V.V.S.N.V.prasad 2005PHXF427	D. M. Kulkarni	Study of supply chain performance measurement
10.	Raghavendra G. S. 2005PHXF428	Prasanna Kumar	Nature inspired computational algorithms for soling complex optimization problems.
11.	Mangesh V. Bedekar 2005PHXF429	Bharat M. Deshpande	Intelligent Web Data-Mining
12.	A.C. Kulkarni 2005PHXF430	D.M. Kulkarni	Investigation of contact stresses, wear & lubrication at metal-on-polymer articulating Surfaces of the Hip Joint.
13.	K.V.R.B. Prasad 2005PHXF431	P. M. Singru	Genetic algorithms for optimum design of turbo-alternator
14.	A. Amalin Prince 2006PHXF409	Iven Jose (Proposed)	Concurrent Design, modeling and analysis of microelectromechanical systems (MEMS) products
15.	Prita Pant 2007PHXF033	N.N. Ghosh	Development of Chemical Methodologies for synthesis of Fe_20_3 and $Ni_{1-x}Zn_xFe_z0_4(0<X<1)$ anopowders and study their structural and physical properties.
16.	Veeky Baths 2007PHXF406	Utpal Roy	Structural modeling, evolution and causes of substitution frequency variation in protein sequences of some clinically important pathogenic bacteria
17.	Abhilash M.T. 2007PHXF407	M.K. Deshmukh	Computer modeling and simulatation of Non-linear quantum effects in Nano Electronic Devices.

Continued…

S.No.	Name & I.D. No.	Supervisor/Mentor	Topic
18	Ramprasad Joshi 2007PHXF408	Bharat Deshpande	Applicability of theoretical computer science to New practical computational techniques and paradigms
19	C. Balakrishna Moorthy 2007PHXF409	M.K. Deshmukh	Investigations on dynamic stability of grid connected wind power generating systems.
20	Dillip Kumar Mohanty 2007PHXF410	P.M. Singru	Effect of Fouling on the performance of a Heat exchanger
21	Nitin Sharma 2007PHXF414	K. R. Anupama	Performance optimization of wireless multi user multiple input multiple output system.
22	Bhanudas R. Naik 2007PHXP443	N.N.Ghosh	Ph.D. Qualified November 2009.Yet to be submitted proposal
23	Zubeda Bi Haider Aga 2007PHXP445	Sutapa R.Roy	Ph.D. Qualified November 2009.Yet to be submitted proposal
24	Vilas Desai 2007PHXP446	Meenal Kowshik	Ph.D. Qualified November 2009.Yet to be submitted proposal
25	Vaishnavi Unde 2008PHXF005	M.Srikanth	Bio – Catalytic production of commercial textile dye-indigo
26	Gautam Bacher 2008PHXF006	Sunil Bhand	Development of Microelectromechanical Systems “MEMS” Based Micro Biosensor Devices
27	Chhayadevi M. Bhamare 2008PHXF007	K.R. Anupama	Development of patched reactive heterogeneous multicore processor architecture for development of complex reactive embedded systems
28	Sivaraman C. 2008PHXF009	M.Srikanth	Expression of Cyclodextrin Glucanotransferase (CGTase) Gene in Hydrocarbon Degrading Bacteria for enhancing Bioremediation
29	Nitin Upadhyay 2008PHXF010	B.M.Deshpande	Concurrent Modeling, Analysis and Design of Component Based Software System (CBSS)
30	.Naik Raghavendra Datta 2008PHXF011	P.M.Singru	Nonlinear Dynamics and Chaos in Vehicle Suspension System
31	Kiran D. Mali 2008PHXF012	P.M.Singru	Vibration Analysis of Rectangular Plates With Rectangular Penetration Patterns of Circular Holes for Different Perforation Size and Ligament Efficiencies
32	Dheeraj Bahl 2008PHXF402	Dr, Rita Dubey (proposed)	Yet to be submitted proposal
33	Meghanand A. Bhamare 2008PHXF403	K.R.Anupama	Integrated Development Environment (I.D.E) for safety critical Embedded System design
34	Pinky P. Pawaskar 2008PHXF404	Mridula Goel	A systems approach to tourism special reference to Goa
35	Apeksha B.Jadhav 2008PHXF405	S.D. Manjare	A Parametric study of proton Exchange membrane (P.E.M) Fuel cell
36	Aruna Govada 2009PHXF008	S.K. Sahay	Distributed data storage and analysis in astronomy
37	Harish V. N 2009PHXF043	------	Yet to be submitted proposal

Annexure II

FACULTY MEMBERS PURSUING PRE- PhD COURSE WORK

Name	Group	Position	Sponsoring Agency
Ms. Manisha Dixit	Humanities & Mgmt. Group	Visiting Faculty	Faculty of BITS, Goa
Ms. Jessica Prereia	Mathematics Group	Lecturer	Faculty of BITS, Goa
Ms. Natasha Disouza	Mathematics Group	Lecturer	Faculty of BITS, Goa
Ms. Ujjwala Bhand	Management Group	Lecturer	Faculty of BITS, Goa
Mr. Gyanesh	Management Group	Visiting Faculty	Faculty of BITS, Goa
Ms. Vaishali Sharma	Mathematics Group	Visiting Faculty	Faculty of BITS, Goa
Ms. Lizy Kanungo	Chemistry Group	SRF	World Bank ICAR
Mr. Rupesh K. Mishra	Chemistry Group	SRF	World Bank ICAR
Mr.Amit Balsing Rajput	Mechanical Group	JRF	DST
Ms.Vidya Ashok Prabhudessai	Biology Group	JRF	UGC
Mr. Geetesh Kumar Mishra	Chemistry Group	SRF	Under NAIP
Mr. Souvik Pal	Chemistry Group	SRF	World Bank ICAR
Mr.R. Prasath	Chemistry Group	JRF	DST

Annexure III

CANDIDATES QUALIFIED FOR PhD DURING 2009

S.No.	Name	ID.No.	Group
1	Ms. Aruna Govada	yet to be allotted	Computer Science
2	Mr.Rajendra Kumar Roul	yet to be allotted	Computer Science
3	Mrs. Kuppili Venkata Santhilata	yet to be allotted	Computer Science
4	Mr. G. Surendran	yet to be allotted	Chemical Engineering
5	Mr. Metikela Sreedhar Babu	yet to be allotted	Mechanical Engineering
6	Mr. PL. Ramkumar	yet to be allotted	Mechanical Engineering
7	Mr. Mane Pravin Sakharam	yet to be allotted	Electrical and Electronics Engineering
8	Mr. Desai Vilas Shivaji	2007PHXP446	Biological Sciences (SRF)
9	Ms. Aga Zubeda Bi Haider	2007PHXP445	Chemical Engineering (SRF)
10	Mr. Naik Bhanudas Rama	2007PHXP443	Chemistry (SRF)

Annexure IV

FIRST DEGREE THESIS COMPLETED

S. No	Name of the Candidate	Thesis Title	Name of supervisor
1	Ravi Teja Kantipudi	Screening of extreme wild type isolates against Multidrug resistant bacterial and CANDIDA strains, Biochemical characterization of the Antimycotic substance and studies on the effect of antimycotic substance on the production of germ tubes in CANDIDA	Utpal Roy
2	Golakoti Ramkrishna Chaitanya	Optimum reactor Design for Multiple Reactors	R.P.Vaid
3	V.C Chaturevendra Sagar	Use of FEM contact module in Solving Biochemical Problem	D. M. Kulkarni
4	D. Anupama	Economics of Human migration – Case study of Goa	R. P. Pradhan
5	P.R Lakshmi Prathyusha	Numerical solution for partial Differential equations using Metlab.	P.Danumjaya
6	S. Bharath	Implementation of Quantum Gates using Linear Optical Circuits.	Radhika Vathsan
7	Srikala Mchineni	A study of influence of notch root radius on fracture behavior of extra deep drawn steel sheets	D.M.Kulkarni
8	Kumari Neelam	Development of Cross layer protocol for underwater wireless sensor networks.	K.R.Anupama
9	Mahesh B	Supply Chain Management : Integrating it design and reverse logistics – A graph theoretic approach	Debasis Patnaik
10	P.Divya Malika	Query Optimisation	J.V.Rao

Continued…

S. No	Name of the Candidate	Thesis Title	Name of supervisor
11	Rohit Garg	India Infrastructure Development Project: Efficiency Analysis.	R.P.Pradhan
12	Amlan Bhattacharya	Developing A Global Financial Architecture A Systems Approach	Debasis Patnaik
13	Ashok Ajoy	Experimental & Theoretical study of Quantum Information Processing by NMR using time optimal pulse sequences.	Anil Kumar IISc-Bangalore
14	Yashudeep Singh	Coupled Effect of Strain and Magnetic Fleld in Magnetostrictive and carbon Nanotuble composites	D.Roy Mahapatra IISc- Bangalore
15	Sourabh Y Bodas	Registration of Objects in Friend II Environment using Disparity map Computation	Saravanakumar Natarajan, Germany

Annexure V

STUDENT CONTRIBUTION

S.No	*Name*	*Topic*	*Area*	*Event*
1	M. Uday Bhanu Sharma Mayank Jog	Construction of an Electromagnetic gun	Basic Sciences	Anveshan 3rd student Research Convention (West Zone), dates are yet to be declared
2	Ankur Kumar	Domestic violence in India: Causes, consequences and remedies	Social Sciences, Humanities, Commerce and Law	
3	Md. Raeesh Pratik Lahiri	Cloning of the antimycotic gene of Brevibacterium incertum and Carnobacterium sp. as a combative alternative to multidrug resistant Candida sp.	Health Sciences and Allied subjects	

Annexure VI

PROFESSIONAL PRACTICE I & II

PROFESSIONAL PRACTICE-1 (BITS G 620)

S.NO	ID NUMBER	NAME OF THE STUDENT	FACULTY SUPERVISOR
1	2008H129001G	C.RAGHAVENDAR	Dr. M. Srikanth
2	2008H129002G	C.CHANDRA SEKHAR	Dr. Meeta Rani
3	2008H129003G	MANOSHI GAYEN	Dr. Utpal Roy
4	2008H129004G	RAKESH CHATRIKHI	Dr. Anasuya Ganguly
5	2008H129005G	MORE SANDEEP MARUTI	Dr. Saby John
6	2008H129004G	AKHILESH DIXIT	Dr. Pavan Jitur
7	2008H129007G	SACHIN SESHSADRI	Dr. Judith Braganca
8	2008H129009G	KABILAN M	Dr. Judith Braganca
9	2008H129011G	VATHARKAR AMIT UDAY	Dr. K.Prakash Chudalayandi
10	2008H141012G	THORKAR GANESH SUDHAKAR	Dr. Chelladurai
11	2008H141013G	K.SRIKANTH	Dr. Praveen Singru
12	2008H141014G	JAGAN MOHAN PONNADA	Prof. V.P. Agarwal

PROFESSIONAL PRACTICE -II (BITS G621)

S.NO	ID NUMBER	NAME OF THE STUDENT	FACULTY SUPERVISOR
1	2008H129001G	C.RAGHAVENDAR	Dr.M. Srikanth
2	2008H129002G	C.CHANDRA SEKHAR	Prof. Dr.Dibakar Chakrabarty
3	2008H129003G	MANOSHI GAYEN	Dr. Utpal Roy
4	2008H129004G	RAKESH CHATRIKHI	Dr. Anasuya Ganguly
5	2008H129005G	MORE SANDEEP MARUTI	Dr. Meenal Kowshik
6	2008H129004G	AKHILESH DIXIT	Dr. Utpal Roy
7	2008H129007G	SACHIN SESHSADRI	Dr. Meenal Kowshik
8	2008H129009G	KABILAN M	Dr. Judith Braganca
9	2008H129011G	VATHARKAR AMIT UDAY	Dr. K Prakash Chudalayandi
10	2008H141012G	THORKAR GANESH SUDHAKAR	Mr. Sachin Waigonkar
11	2008H141013G	K.SRIKANTH	Mr. Ragavendra Naik

Annexure VII

ON GOING SPONSERED APPORVED RESEARCH PROJECTS

Title of Project	**Name of Principal Investigator/ co-investigator Project No.**	**Funding Agency**	**Sanctioned Amt. (Rs.Lakhs)**	**Date of Start of the Project**	**Duration.**
Preparation and characterization of nanosized TiO_2 and studies on its photodegradation capability of model organic pollutants.	***Dr. Meenal Kowshik*** *Dr. Sutapa R. Ramanan* *Dr. Saby* John **SR/S5/NM-52/2006**	D.S.T.	**19.11 (Revised)**	22/01/2007	3 years (Awaited for extension letter)
Novel Aza and Oxa-aza Selenamacrocycles: Synthesis, Metal complexes and anion Binding.	Dr. Arunashree Panda **SR/FTP/CS-32/2006**	D.S.T.	**19.32**	28/12/2006	3 years (**05 months extension upto31/05/2010)**
Studies on moulding compounds and compression moulding techniques for FRP fasteners	**Dr.B.J.C. Babu** Dr. N.N. Ghosh Mr. G.J. Desai **SR/S3/ME/37/2005**	D.S.T.	**21.08**	06/07/2007	2 years **(Extension upto 31/05/2010)**
Investigations on factors affecting nuclear accumulation of DNA studied using an in-house constructed confocal microscope	Dr. Geetha Varier **SR/WOS-A/PS-24/2006**	D.S. T.	**18.90**	12/10/2007	3 Years
Synthesis of mesoporous silica and alumina based oxide materials	Dr. N. N. Ghosh **SR/S1/IC-39/2006**	D.S.T.	**20.00**	03/07/2007	3 Years
Preparation and characterization of Nanoferrite powders and polybenzoxazine nanoferrite composites	**Dr.N.N. Ghosh** Dr. Sunil Bhand **ERIP/ER/0605042/M/01/929**	DRDO	**14.97**	12/03/2007	3 years

Continued…

Title of Project	Name of Principal Investigator/ co-investigator Project No.	Funding Agency	Sanctioned Amt. (Rs.Lakhs)	Date of Start of the Project	Duration.
Synthesis of improved Ferroelectric materials by sol-gel emulsion technique	Dr. Sutapa R. Ramanan ERIP/ER/0605047/ M/01/941	DRDO	14.98	07/05/2007	3years
Isolation and screening of micro-organisms from Extreme and Unusual Environment for new and novel antimicrobial peptides to combat some clinically important multidrug resistant fungal pathogens	Dr. Utpal Roy Dr. Meenal Kowshik Dr. M. Srikanth 38(1142)07/EMR-II	CSIR, New Delhi	14.87	28/04/2007	3 years (on 10 months extension , upto 31/03/2011)
Novel Biosensor techniques for monitoring heavy metals and pesticides residues in coastal waters and sediments	Dr. Sunil Bhand 23(0002)/06/EMR-II	CSIR, Dona Paula-Goa(Delhi)	14.47	06/11/2006	3 years
Techno-Economic Feasibility Studies on an alternative process route for removal of methanol, ammonia, and carbon dioxide from process condensate water in a fertilizer ammonia plant	Dr. Srinivas K Dr. N.N. Ghosh Dr. M. Srikanth 13023/12/2005-FP	Ministry of Chemicals & Fertilizers, Dept. of fertilizer	86.98	02/05/2007	3 years
A Parametric Study of the Proton Exchange membrane (PEM) Fuel Cell Performance	Dr. S. D. Manjare 102/4/2004-NT	Ministry of New & Renewable Energy, New Delhi	10.47 (Revised Amt.)	25/04/2007	2 Years (1 yr. extension)
Expression of cyclodextrin glucosyl transferase gene in hydrocarbon degrading bacteria for enhancing bioremediation	Dr. M. Srikanth Dr. Anasuya Ganguly BT/PR9782/GBD/27/69/ 2006	DBT	17.02	11/10/2007	3 Years

Continued…

Title of Project	Name of Principal Investigator/ co-investigator Project No.	Funding Agency	Sanctioned Amt. (Rs.Lakhs)	Date of Start of the Project	Duration.
Synthesis and Spectral, Redox and Solid State Coordination Properties of Asymmetric and Highly Functionalised Thienyl- and Furyl-Porphyrins	Dr. Bhavana P. SR/FTP/CS-57/2007	DST	19. 97	27/02/2008	3 Years
Radion contribution to various flavour changing neutral current (FCNC) processes in B-meson decay	Dr. Prasanta Das SR/FTP/PS-11/2006	DST	2.88	11/12/2008	3 Years
Development of Biosensors and micro-techniques for analysis of pesticide residues, aflatoxin, heavy metals and bacterial contamination in milk.	Dr. Sunil Bhand C4/C 10125	The Indian Council of Agricultural Research (Under NAIP)	245.73 (BITS-Goa share out of 729.88)	Jan 08	4.16 years
Application of Life Cycle Assessment (LCA) to Diammonium Phosphate Plant (DAP)	Dr. S. D. Manjare 15061/1/2007-FP	Ministry of Chemicals & Fertilizers, Dept. of fertilizer	27.00	26/02/2008	1 Year (1 year extension)
Anaerobic digestion of food waste in a horizontal plug flow reactor	Dr. M. Srikanth Dr. Anasuya Ganguly 33-139/2007(SR)	U.G.C.	10.09	17/04/2008	3 Years
Studies on haloarchaea producing polyhydroxy alkanoates	Dr. Judith M. Braganca Dr. Meenal Kowshik 34-500/2008(SR)	U.G.C.	8.90	05/09/09	3 Years

Continued…

Title of Project	Name of Principal Investigator/ co-investigator Project No.	Funding Agency	Sanctioned Amt. (Rs.Lakhs)	Date of Start of the Project	Duration.
Photothermal imaging of nuclear transport	Dr. P. Nandakumar Dr. Meenal Kowshik Dr. Geetha Varier BT/PR11237/ MED/32/66/2008	D.B.T	24.60	10/11/2009	3 Years
Studies on the optical nonlinearity of gold nanoparticle embedded $BaTiO_3$ thin films.	Dr. P. Nandakumar ERIP/ER/0704 400/M/01/1133	DRDO	14.94	26/06/2009	3 Years
Detection and Mitigation of Dairy Pathogens and Detection of Adulterants using Chemical Biology	Dr. Sunil Bhand NAIP/Comp-4/C30032	The Indian Council of Agricultural Research (under NAIP)	45.07 (BITS-Goa share out of 411.80)	3/02/2009	3 Years
Experimental Pilot Scale Horizontal Plug Flow Reactor for Anaerobic Digestion of Food Waste	Dr. M.Srikanth 1/151/GEDA/2009-10/565	Goa Energy Development Agency,Goa	3.65	09/07/2009	3 Years
Studies on extremophile isolates for novel antimicrobial substances: Biochemical & Genetic characterization of antimicrobial substance produced by a selected wild-type extremophile isolate against multi-drug resistant clinical isolates.	Dr. Utpal Roy Mrs. Purnima Singh SR/WOS-A/LS-68/2009	DST	11.64	27/12/2009	3 Years
Screening of extremophile isolates for novel antimicrobial substances: Cloning and characterization of selected antimicrobial substances against multi-drug resistant human pathogens.	Dr. Utpal Roy Dr. K. Prakash SR/SO/HS-0137/2008	DST	10,00	Money yet to receive	1.5 Years

Continued…

Title of Project	Name of Principal Investigator/ co-investigator Project No.	Funding Agency	Sanctioned Amt. (Rs.Lakhs)	Date of Start of the Project	Duration.
Chemical modification of some metal ion binding peptides with photoactive molecules, and investigations on their photoinduced DNA damage, and photoenhanced antimicrobial activity	Dr. Halan Prakash Dr. Meenal Kowshik BT/PR13316/GBD/27/251/2009	DBT	21.24	Money yet to receive	3 Years
Field Performance Monitoring of Hybrid (SPV+Wind) 15 kW Power Generation System at BITS, Pilani Goa-Campus	Dr. M.K. Deshmukh	Ministry of New and Renewable Energy Sources and Goa Energy development Agency, Goa	Equipment worth Rs. 40 lakhs are received and commissioned		Continuing since August, 2009
Development of Novel Initiators for controlled radical Polymerization of N-Substituted itaconamic acid/itaconimide Monomers	Dr. Rashmi Chauhan	DST	(Approved)		
Spectroscopic properties of some low-lying electronic states of alkali metal-rare gas and alkaline earth metal-rare gas molecules	Dr. Anjan Chattopadhyay	DST	(Approved)		
Biological Synthesis of Metal Sulfide and Metallic Nanoparticles using Halophilic Archaeobacteria.	Dr. Meenal Kowshik Dr. Sutapa Roy R.	ORMD,Ministry of Earthsciences Govt. of India,	(Approved)		
Development of turn-on type Chemodosimer for Selective Recognition of Sulfhydryl-Containing Amino Acids and Peptides in aqueous media	Dr. Amrita Chatterjee	DST	(Approved)		
Total Sanctioned Cost of the project Rs. 757.88 /- Lakhs					

Annexure VIII

RESEARCH PROJECTS UNDER REVIEW (WITH FUNDING AGENCIES)

Name	Subject Area	Title of Project	Amount (Rs. in lakhs)	Submitted to
Dr. Reeta Dubey	Environment	Water quality monitoring and Management using data mining	20.0	CSIR,New Delhi
Dr. Sutapa Roy Ramanan	Corrosion Engineering	Feasibility studies on Development of Corrosion Resistant Coatings Coatings on mild steel by Sol-Gel Technique.	5.05	Naval Base Karwar
Dr. Reena Cheruvalth	Philosophy of mind & Cognitive science	Attitude of Technological & Engineering students towards Humanities subjects	1.20	UGC New Delhi
Dr. Neena Goveas	Condensed matter physics	Study of low dimensional systems using numerical technique	2.52	D.S.T
Dr. P. Nandkumar	Nanostructured materials	Interferometric detection and micro-spectroscopy of single nanoparticles.	83.21	DST
Dr. D.M. Kulkarni	Refrigeration and air conditioning	Design, Analysis and Development of an Ice-Cooled air Conditioner 'Snowbreeze	11.85	DST
Dr. P. M. Singru	Mechanical Engineering and Civil Engineering	Development of NURBS Based Higher order Panel Method for Zero speed diffraction problems in Time Domain	18.28	DST
Dr N. N Ghosh	Nanomaterials and biosensors	Development and characterization of nanomaterials for biosensors and biocatalyst	37. 98	DST
Dr. Srinivas Krishnaswamy	Chemical Engineering	Experimental Investigations and comparative studies on novel and promising process/ processes technologies for syngas production and carbon capture in ammonia fertilizer plants	1372.80	Ministry of Chemicals and Fertilizers, Department of Fertilizers, Government of India
Dr. M Srikanth	Environmental Biotechnology	Uptake mechanism of hydrophobic environmental pollutants	84.71	Department of Biotechnology
Dr. N. N. Ghosh	Mesoporous Adsorbent	Development of Nano Structured High Surface Area Alumina and Silica Based Adsorbent with Tailored Pore Structure for Removal of Fluoride Ions from Ground Water.	31.73	Board of Research in Nuclear Science (BRNS) Trombay, Mumbai- 400085

Continued…

Name	Subject Area	Title of Project	Amount (Rs. in lakhs)	Submitted to
Dr. P. M. Singru	Vibration Analysis	Development of Magnetorheological Fluid Damper, Modeling of its Behavior under wideband and Chaotic Vibration	15.91	Department of Science and Technology
Mr. Dillip Kumar Mohanty	Mechanical Engineering	Effect of fouling on heat transfer rate a shell and tube heat exchanger	7.87	DST
EEE Group	EEE Group	Special Assistance Programme (DRS	1,00,00,000	(UGC)
Dr. Teny Theresa John	Physical Sciences	Photoluminescence Studies on Undoped and Transition Metal Doped ZnO Nanoparticles	20,40,000	DST
Dr. M. Srikanth	Environmental Biotechnology	Bio-Catalytic Production of a Commercial Textile Dye-Indigo"	5,83,200/-	Dste Goa.
Dr. Dibakar Chakrabarty	Toxinology	Studies on Hemorrhagic and anticoagulant Toxins of Indian Venomous snakes	21,38,400	Indian Council of Medical research, New Delhi
Dr. C.K. Ramesha	Physical Sciences	Investigation of Schottky contacts to Silicon Carbide (SiC) using I-V and C-V techniques	17,13,800	University Grants Commission (UGC)
Dr. M. Srikanth	Life Sciences	Analysis of Metabolically Active Bacterial Species in Anaerobic Environments	3,83,800	Department of Science and Technology – DAAD
Dr. Sujit Ghosh	Physical Chemistry	Physicochemical studies and the identification of DNA damage by porphyrin sensitized alkylating quinones	24,00,480	Department of Science and Technology.
Dr. Mainak Banerjee	Chemical Sciences	"Redox- sensitive Vesicles of Cucurbit{7} urils as an Efficient Targeted Intracellular Drug Delivery Vehicle"	25,56,086/-	Department of Science and Technology.
Dr. N. N. Ghosh	Properties of Nanocomposites	"Development of a novel aqueous 0solution based "one pot", synthesis route for hard-soft-ferrite nano-compostes and their properties"	15,00,060/-	DRDO for Extramural Research Grant.
Physics Group	Materials Science	Special Assistance Programme (DRS)	53,50,000/-	University Grants Commission (UGC)
Dr. Sumit Biswas	Life Sciences	Studies on Putative GGEEF/Sensory Box Domain Protein of Vibrio Cholerae	19,22,200	Department of Science and Technology

Annexure IX

LIST OF JRF AND SRF

SL.No	Name	Project Title and Principal Investigator (PI)	Group	Position	Sponsoring Agency
1	Ms. Prita Pant	Preparation and characterization of Non-Ferrite powders and polybenzoxazine-Nanoferrite Composites. **PI: Dr. N.N. Ghosh**	Chemistry	**SRF**	DRDO
2	Mr. Bhanudas R. Naik	Synthesis of mesoporous silica and aluminium based oxide materials **PI: Dr. N.N. Ghosh**	Chemistry	**SRF**	DST
3	Mr. Vilas Desai	Preparation and characterization of nanosized Ti02 and studies on its photodegradation capabilitry of model organic pollutants **PI: Dr. Meenal Kowshik**	Biology	**SRF**	DST
4	Ms. Zubeda Bi Aga	Synthesis of improved Ferroelectric materials by sol-gel emulsion technique **PI: Dr. Sutapa R. Roy**	Chemical	**SRF**	DRDO
5	Mr.C. Sivaraman	Expression of cyclodextrin glucosyl transferase gene in hydrocarbon degrading bacteria for enhancing bio remediation **PI: Dr. M. Srikanth**	Biology	**SRF**	DBT
6	Mr.Md. Shekh Raeesh	Isolation and screening of micro-organisms from extreme and unusual environment for new and novel antimicrobial peptides to combat some clinically important multidrug resistant fungal pathogens **PI: Dr. Utpal Roy**	Biology	**JRF**	CSIR
7	Ms.Kanchanmala Deshpande	Development of Biosensors & micro-techniques for analysis of pesticide residues,aflatoxin,heavy metals & bacterial contamination in milk **PI: Dr. Sunil Bhand**	Chemistry	**SRF**	World Bank ICAR
8	Ms. Lizy Kanungo	Development of Biosensors & micro-techniques for analysis of pesticide residues,aflatoxin,heavy metals & bacterial contamination in milk **PI: Dr. Sunil Bhand**	Chemistry	**SRF**	World Bank ICAR

SL.No	Name	Project Title and Principal Investigator (PI)	Group	Position	Sponsoring Agency
9	Mr. Rupesh K. Mishra	Development of Biosensors & micro-techniques for analysis of pesticide residues,aflatoxin,heavy metals & bacterial contamination in milk **PI: Dr. Sunil Bhand**	Chemistry	**SRF**	World Bank ICAR
10	Ms. Apeksha Jadhav	A Parametric Study of the Proton Exchange membrane (PEM) Fuel Cell Performance **PI: Dr. S.D. Manjare**	Chemical	**SRF**	Ministry of New & Renewable Energy
11	Mr.Amit Balsing Rajput	Studies on moulding compounds and compersion moulding techniques for FRP fasteners **PI: Prof. B.J.C. Babu**	Mechanical	**JRF**	DST
12	Ms.Vidya Ashok Prabhudessai	Anaerobic digestion of food waste in a horizontal plug flow reactor **PI: Dr. M. Srikanth**	Biology	**JRF**	UGC
13	Mr. Geetesh Kumar Mishra	Under NAIP Development of Biosensors…in milk funded by the ICAR and The World Bank at BITS, Pilani-Goa Campus **PI: Dr. Sunil Bhand**	Chemistry	**SRF**	Under NAIP
14	Mr. Souvik Pal	Development of Biosensors & micro-techniques for analysis of pesticide residues,aflatoxin,heavy metals & bacterial contamination in milk **PI: Dr. Sunil Bhand**	Chemistry	**SRF**	World Bank ICAR
15	Mr.R. Prasath	Synthesis and spectral, redox and solid state coordination properties of asymmetric and highly functionalised thienyI – and furyI – porphyrins **PI: Dr. P.Bhavana.P**	Chemistry	**JRF**	DST
16	Mr. Rajendra Gopalrao Mohite	Application of Life Cycle Assessment to Diammonium Phosphate (DAP) Production **PI: Dr. S.D. Manjare**	Chemical	**SRF**	Ministry of Chemicals & Fertilizers
17	Ms.Bhakti Balkrishna Salgaonkar	Studies of Haloarchaea producing polyhydroxyalkanoates **PI: Dr.Judith Braganca**	Biology	**Research Fellow**	UGC
19	Mr.Arun Karthick. S	photo thermal imaging of nuclear transport **PI: Dr.P.Nadakumar**	Physics	**JRF**	DBT

Annexure X

FACULTY RESEARCH AREAS

CHEMICAL ENGINEERING GROUP	
Name of Faculty	**RESEARCH AREAS**
Srinivas Krishnaswamy	Membrane separation processes, Reforming technologies for syngas production, Process plant simulation, Two phase flow
Manjuri Kumar	Ceramics, Polymer Technology
Sutapa Roy Ramanan	Material synthesis, ferroelectric and electronic materials, Thin films, Membrane development
Sampatrao D. Manjare	Environmental pollution control and management, Separation processes, Fuel cell and solar energy
Ranjan Dey	Thermodynamic and transport properties of liquids and liquid mixtures
P Venkateswara Rao	Environmental pollution control and management, Membrane processes
Surendran G.	Petroleum refining engineering
Saroj Sundar Baral	Environmental Pollution, Separation Sciences
Vaishnavi T. Unde	Environmental pollution
R.P. Vaid	Reaction Engineering, Process Control, Transport Phenomena
COMPUTER SCIENCE & INFORMATION SYSTEM GROUP	
Bharat Deshpande	Set Valued Analysis, Optimization, Parallel Algorithms, Data Mining
J.V. Rao	Database Applications, Data Mining
Neena Goveas	Condensed Matter Physics, Matter Physics Magnetic Materials, Spin Chains Statistical models
Sanjay K. Sahay	Data Analysis, Numerical Simulation, Gravitational Waves
Lucy J Gudino	Digital Signal Processing , Array Signal Processing, Speech Processing
Raghavendra G.S.	Evolutionary Computation
Mangesh V. Bedekar	Data Mining, Software Engineering, web data mining for personalised user experience
Ramprasad Joshi	Formal Theory of Computing, Evolutionary Computing
Nitin Upadhyay	Software Engineering, Quality Evaluation of Software Architecture, Mobile Computing Components certification, evaluation and selection methodologies
N. Arul	Image Processing
Aruna G	Case Based Reasoning, Parallel Computing
D. Cenitta	Computer Networks
Rajendra Kumar Roul	DataBase
P Arun Kumar	Computer Networks
ELECTRICAL & ELECTRONICS ENGG. GROUP	
Vishwas K Deshpande	Power System, Solar Energy Reliability
K. E. Raman	Control Systems
M. K. Deshmukh	Power system, Energy Management, Energy Planning
K.R. Anupama	Embedded Systems
K.V.R. Brahma Prasad	Electrical Machine Design, Power Systems, Optimization
Iven Jose	Optical Imaging, Signal and Image Processing, Biomedical Engineering
Amalin A. Prince	MEMS, Embedded, VLSI

Continued…

Anita B. Agrawal	Biomedical Applications using image processing
C. Balakrishna Moorthy	Power Systems Stability,Wind Energy
Abhilash M.T.	Nano Electronics, Analog mixed signal IC Design
Nitin Sharma	Wireless MIMO Communication
Gautam G. Bacher	BioSensor
Chhayadevi M. Bhamare	Embedded, VLSI Design
Meghanand A. Bhamare	Embedded, VLSI Design
Jagmohan Singh	Power Electronics, Instrumentation, development of processing techniques and products protypes
Vinita George	Communication Systems
Pravin Sakharam Mane	FPGA based designs
MECHANICAL ENGINEERING GROUP	
Pravin Singru	Machine Dynamics and Vibrations, Design of Algorithms, Theory of Elasticity & Plasticity, Machine Design, Robotics, CAD/CAM Artificial Intelligence and Genetic Algorithms, Analytical Theory of Vibration, Finite Element Methods
Bhaskara J. Chandra Babu	Mechanical Engineering Design, Materials Science, Composite Materials, FEM, Fluid Mechanics
Dhananjay M. Kulkarni	Fracture Mechanics, FEM, CAD, Failure Analysis, Materials Science
Shibu Clement	Experimental Aerodynamics, Jet Control Techniques, Nozzle flow Fluid Mechanics
Vikas Vinayak Chaudhari	Fracture Mechanics
Sachin D. Waigaonkar	Manufacturing Engg. & Automation
Abhishek Kumar	Electroplating, Graph Theory, MADM
C. Phaneedra Kiran	Manufacturing Systems
Varinder Singh	Modeling of Manufacturing Systems
Chelladurai H.	Vibrations and its Analysis, Virtual Instrumentation, Neural Networks
Dilip Kumar Mohanty	Applied Mechanics
Mali Kiran Dinkar	Experimental Vibration Analysis
Vishnu Prakash Agrawal	Robotics, System Design
BIOLOGY GROUP	
Utpal Roy	Cell Biology, Genetic Engineering, Bioprospecting, Antifungal research
Meenal Anil Kowshik	Nanoparticles synthesis and assembly, Metal microbe interactions, Synthesis and antimicrobial activities of Titanium dioxide, Photocatalytic activity of titanium dioxide
Saby John K.	Plant tissue culture, Plant Biotechnology, Plant biochemistry
Srikanth Mutnuri	Environmental Biotechnology, Bioremediation, Waste water pollution treatment
Judith Maria Braganca	Haloarchaea, Metal Tolerance, Bioremediation, Microbial Fermentations
Anasuya Ganguly	Molecular Biology, Molecular Parasitology, Animal Cell and Tissue Culture, Cellular Aging
K. Prakash Chudalayandi	Molecular Biology, Yeast molecular genetics
Veeky Baths	Systems Biology, Bioinformatics and Structural Genomics
Sumit Biswas	Structural proteomics and genomics, Vibrio cholerae pathogenicity, Protein crystallography, Structural Biology of toxins and toxinology, Bioinformatics, Evolution of stress adaptations
Dibakar Chakrabarty	Biochemistry and pharmacology of venoms and toxins

Continued…

Vijayashree Nayak	Molecular aspects of clinical microbiology, Molecular studies on Animal cell and tissue culture and Nanotechnology
CHEMISTRY GROUP	
Sunil Bhand	Biosensors for Clinical & Environmental Analysis, Metal Speciation & Remediation
Aditya Prasad Koley	Synthesis and Characterization of Metal Complexes with Unusual Electronic Structures
Narendra Nath Ghosh	Nano structural Materials, Mesoporous Catalyst, Ceramics, Polymer Composite, Inorganic Chemistry
Raghu Nath Behera	Theoretical and Computational Chemistry
Tincy Lis Thomas	Photophysical Chemistry, Fluorescence Studies
Bhavana P.	Bioinorganic Chemistry
Anjan Chattopadhyay	Theoretical and Computational Chemistry
Rabi Narayan Panda	Synthesis, Characterization and Study of Metal, Alloy and Nitride nano-materials,Synthesis, Characterization and Study of oxide based nano-powder, Physical Chemistry, Solid State Chemistry/ Physics, Techniques of Materials Characterizations
Rashmi Chauhan	Polymer Chemistry, Synthetic Organic Chemistry
Iti Gupta	Synthesis of Porphyrnoids and Related Macrocycles with Novel Properties, Photophysics of Covalent and Non-Covalent, Multipigment Systems Design and Synthesis of Macrocyclic Receptors for Anions and Cations
Anoopkumar M. Saxena	Protein foulding using fluoruscence spectroscopy
K.P. Jayadevan	Semiconducting oxide thin fillings, Thermodynamics of materials
Sujit kumar ghosh	Physical Chemisrty
MATHEMATICS GROUP	
Reeta S. Dubey	Differential Equations in Abstract Spaces and Application to PDE, Integro-differential and Functional Differential Equations, Theory of Semigroups of Operators and Approximation of Solutions (Faedo-Galerkin method)).
Prasanna Kumar N.	Complex Analysis, Geometric Function Theory
Tarkeshwar Singh	Graph Theory (Graph Labeling Problems Domination & Energy of graph/sigraph)
Danumjaya Palla	Numerical Analysis & Scientific Computing, Computational Fluid Dynamics
Anil Kumar	Control and Optimization, Integro-Differential Equations, Theory of Semigroups of Operators, Finite Element Method
Subramania Pillai I	Topological Dynamics
Sarvesh Kumar	Applied Mathematics
Dheeraj Bahl	Compliment Optimazation Problem
Jessica Pereira	Graph Theory
Bijil Prakash	Image Fusion Algorithms
Natasha D'Souza	Graph Theory
Dwijendra Narain Pandey	Differential equation
Manoj Kumar Pandey	Partial Differential Equations, Nonlinear Waves
PHYSICS GROUP	
Suresh Ramaswamy	High Energy Physics
Arun V. Kulkarni	Nuclear Theory

Continued…

Gaurav Dar	Turbulence, Chaos
Radhika Vathsan	Mathematical Physics, Quantum Computing
Nandakumar Patincharath	Nonlinear optics, Ultrafast Laser Spectroscopy and Microscopy
Tarun Kumar Jha	Theoretical Nuclear Physics, Nuclear Astrophysics
Chandradew Sharma	High Energy Physics, B-physic, Astrophysics
Deepak P.N	Nuclear Theory
Raghunath Ratabole	High Energy Theory
Toby Joseph	Condensed Matter Theory
Sunilkumar V.	High Energy Theory
Mitaxi Mehta	Nonlinear Dynamics
Prasanta Kumar Das	High Energy Theory, Extra dimensional theories, B-mison physics
R. S. Patel	Spintronics and Experimental Condensed Matter Physics
Teny Theresa John	Magnetic Semiconductors and Semiconducting Thin Films
Tarun Kr. Jha	Nuclear Physics, Astrophysics
LINGUISTICS, HUMANITIES, ECONOMICS & MANAGEMENT GROUP	
ENGLISH	
Meenakshi Raman	Professional Communication, ELT (English Language Teaching), ESP (English for Specific Purposes), Soft Skills, Journalism
Basavadatta Mitra	English Literature, ELT
Shalini Upadhyay	Indian Writings in English, Non-Verbal Communication, Professional Communication, Personality Development, Business Communication, Soft Skills
Aruna B. Reddi	Post-Colonial Literatures, Regional Novel,
Manisha Dixit	Soft Skills, Professional Communication, Media and Mass Communication, Human Values
ECONOMICS	
Mridula Goel	Development economics, WTO, Gender issues, Entrepreneurship
Debasis Patnaik	Industrial Economics, Regional Economics, Social Science, Philosophy, Religion
Aswini Kumar Mishra	Poverty, Social Security, Human Development
N.Kubendran	International Trade, Development Economics
Ambili K	Agriculture Economics.
HUMANITIES	
R. P. Pradhan	International Relations
Reena Cheruvalath	Cognitive Science, Philosophy of Mind, Western Philosophy, Philosophy of Education
MANAGEMENT	
Ch.V.V.S.N.V Prasad	Supply Chain Management

Annexure XI
Laboratories Developed

Biological Sciences Group

- Biotechnology
- Microbiology (Includes 2 Laminar Air Flow apparatus)
- Genetic Engineering
- Measurement Techniques (Biology)
- Animal Cell and Tissue Culture laboratory

Chemical Engineering Group

- Mass Transfer
- Selected Chemical Engineering operations (SCEO)
- Heat transfer and Fluid Flow Operations (also part of mechanical engg group)
- Measurement Techniques (Chemical)
- Process Control and Reaction Engineering
- Computational Chemical Engineering

Chemistry Group

- Instrumental Methods of Analysis (include the equipment details)
- Chemistry Project
- Chemistry Special Project
- Computational Chemistry
- Measurement Techniques (Chemistry)

Computer Science & Information Systems Group

- IBM AIX Server with dB2
- Oracle Educational Version

Electrical, Electronics Engineering & Instrumentation Group

- Electronic Instruments & Instrumentation Technology
- Electrical and Electronics Measurement Techniques
- Electromechanical Energy conversion
- Digital and Analog Electronics
- Digital Communication
- Measurement Techniques (Physics)
- Optics Laboratory

Available Central Facilities

- Center for Software Development
- Computer center
- Centre for entrepreneurial development

Newly Proposed Centers

- Centre for Energy and Environmental Studies
- Centre for Embedded Technology
- Centre for Women Studies
- Centre for Nano Technology
- Centre for Soft Skills

Languages and Personality Development Group

- Computer-aided Language

Mechanical Engineering Group

- Fluid Mechanics and Machines
- Internal Combustion Engine
- CNC & FMS
- Automation
- Thermal Science
- Material Testing
- Machine Dynamics

Physics Group

- Solid State Physics Laboratory

Annexure XII
CONSULTANCY PROJECTS AND SERVICES

Sr. No.	Name of the faculty/faculties	Organization to which consultancy is provided	Nature of work / service offered	Revenues Generated
1	Prof. T.C. Goel, Dr. D.M. Kulkarni, Dr. Praveen Singru, Mr. Amlin Prince and Ms.Sandhya Sawant	D-Link(India) Ltd. Goa	Opinion on manufacturing and assembly process of motherboards (GIGABYTE make)	Rs. 30,000/-
2	Prof. B.J.C. Babu and Dr. P.M. Singru	IFB Washing Machine, Verna, Goa	Failure of drum of horizontal washing machine (in progress)	It is under progress. So far no revenue is generated.
3	Prof. B.J.C. Babu P. Mr. Venkateswara Rao, and Dr. Shubha Verma	Naval area, Indian Navy, Goa	Submitted Design drawings for analysis and design of an Platform for ground trials and static testing of the Sea Harrier Aircraft	Total Rs. 40,000/-
4	Dr. M. K. Deshmukh	Zuari Industries Ltd. , Vasco	Power Distribution Network: options for Renovation	No revenue
5	Dr. G.V. Kumari	International Potato Center Lima, Peru, South America	Map drought areas in India by using Satellite imagery data.	Rs. 400,000/-
	Dr.Joy Anuradha & Dr. Shalini Upadhyay	Zuari Industries Ltd	"Communication Skills for Professionals(managers)" for Zuari Industries Ltd	Rs. 31,000/-
6	Dr. K. Srinivas	Zuari Industry limited, Goa	Detail analysis for Process condensate water Cooling water treatment using ozone	No revenue
7	Dr. K. Srinivas	Sesa Goa Pvt Ltd., Goa	Viscosity measurement of iron ore samples	Rs.15,000/-
8	Dr. S.D.Manjare	Zuari Industry limited, Goa	Operational Improvements in DAP production unit	No revenue
9	Dr. N.N. Ghosh	SB Industries, Surat, Gujarat	Preparation of high quality nano sized alumina powder.	
10	Dr. Meenakshi Raman, Dr. Basavadatta Mitra, Mr. VVSNV Prasad	Keonics, Bangalore	Impact Analysis on Social Economic and Personal Aspects ICT- Goa Training Project	Rs. 45000/-
11	Dr. Iven Jose	Microsoft Research Laboratory	Non-Invasive Imaging of Cancer using Diffused Optical Tomography	Rs. 150000/-

Annexure XIII

JOURNAL PUBLICATION

Authors	Title	Journal Name	Category	Volume	Issue	Page Number
A Kumar,, V. P. Agrawal,	Structural modelling and analysis of electroplating system: a graph theoretic system approach	International Journal of Surface Science and Engineering	International	2	--	520 – 540
A Kumar, V. P. Agrawal,	Attribute based specification, comparison and selection of electroplating system using MADM approach	Expert Systems with Applications	International	36	---	10815 - 10827
Ranjan Dey, Anjan Chattopadhyay, Ashish K. Sharma, J. D. Pandey	Study of excess thermodynamic properties of multicomponent liquid mixtures	J. Mol. Liqs	International	147	3	155 – 161
A, Kumar, , S. Clement,, V.P Agrawal	Attribute Based Design Specification, Comparison and Selection of Electroplating Waste Treatment System Using MADM Approach	Journal of Tribology and Surface Engineering	International	1	3/4	0 - 0
Amalin Prince, V.P. Agrawal	Structural modelling and integrative analysis of Microelectromechanical systems product using graph theoretic approach	Journal of Microsystem Technologies	International	15	7	1083 – 1096
Amalin Prince, V.P. Agrawal	Coding, evaluation, comparison, ranking and optimum selection of Micro-Electro-Mechanical System (MEMS) products	International Journal of Mechatronics and Manufacturing Systems	International	2	1/2	97 – 119
Amiket Singh, Amalin Prince, V.P. Agrawal	Design Optimization & Comparison of RF Power Sensors based on MEMS	International Journal of Recent Trends in Engineering (IJRTE)	International	1	4	64 – 67
Aswini Kumar Mishra	Poverty, Vulnerability and Social Security of Elderly in Orissa: Some Issues and Evidences	Helpage India-Research and Development Journal	National	15	1	19 – 24
Bhanudas Naik, Narendra Nath Ghosh	A Review on Chemical Methodologies for Preparation of Mesoporous Silica and Alumina Based Materials	Recent Patents on Nanotechnology	International	3	3	213 – 224

Continued…

Authors	Title	Journal Name	Category	Volume	Issue	Page Number
Bhanudas Naik, Prita Pant Sarangi, David Hui, Narendra Nath Ghosh	Preparation of a New Type High Performance Polybenzoxazine- Ni-Zn Ferrite Magnetic Nanocomposite	Plastic Masses (Russian Version)	International	12	C	13 – 17
Judith M Braganca, Irene Furtado	Isolation and characterization of Haloarchaea from low salinity Coastal sediments and waters of Goa – India.	Current Science	National	96	9	1182 – 1184
Judith M Braganca	Haloarchaea associated with salt crystals obtained from solar salterns of Goa, India.	Microbe Library.org. American Society for Microbiology.	International	--	--	0 – 0
Keshab das, aswini kumar mishra	Ensuring Horizontal Equity: Challenge before the Thirteenth Finance Commission	Economic and Political Weekly	International	44	5	14 – 17
M K Deshmukh, S. S. Deshmukh	A New Approach to Micro-level Energy Planning – A Case of Northern Parts of Rajasthan, India	Renewable and Sustainable Energy Reviews	International	13	1	634 – 642
M. K. Deshmukh, S. S. Deshmukh	Micro-level Integrated Renewable Energy System Planning in India	Energy and Fuel Users Journal	National	LVI	1	1 – 6
M. K. Deshmukh, S. S. Deshmukh	Optimum Size of Wind, Photovoltaic and Hybrid Wind/PV Power Generation System for Region in Rajasthan	Energy and Fuel Users Journal	National	LVI	1	15 – 34
M. K. Deshmukh, S. S. Deshmukh	Estimation of Household and Agricultural Energy Consumption Patterns in Northern Parts of Rajasthan, India	Energy Education Science and Technology – An International Journal	International	17	1	65 – 82
M. K. Deshmukh	System Sizing for Implementation of Sustainable Energy Plan	Energy Education Science and Technology – An International Journal	International	18	1	1 – 15
M. K. Deshmukh, S. S. Deshmukh	Micro-level Integrated Renewable Energy System Planning	International Energy Journal 2008	International	9	1	9 - 20

Continued…

Authors	Title	Journal Name	Category	Volume	Issue	Page Number
M. K. Deshmukh, S. S. Deshmukh	Modeling of Hybrid Renewable Energy Systems	Renewable and Sustainable Energy Reviews	International	12	1	235 – 249
Prasanna Kumar N	The role and importance of history of mathematics in mathematics education	International Journal of New Frontiers in Education	International	42,	No 3	292 – 297
Prasanta Kumar Das	Implication of the HyperCP boson X0 (214-MeV) in the flavour changing neutral current processes	Physical Review D	International	80	3	34017 – 34025
Pravin M Singru, Raghvendra Dutta Naik	Establishing the Limiting Conditions of Operation of Magnetorheological Fluid Dampers in Vehicle Suspension System,	Mechanics Research Communication	International	36	8	957 – 962
Prita Pant Sarangi, Sampat Raj Vadera, Manoj Kumar Patra, Chandra Prakash, Narendra Nath Ghosh	DC Electrical Resistivity and Magnetic Property of Single-Phase α- Fe2O3 Nanopowder Synthesized by a Simple Chemical Method	Journal of the American Ceramic Society	International	92	10	2425 – 2428
Prita Pant, B. D. Naik, Narendra Nath Ghosh	Synthesis of α-Fe2O3 Nano-powder by a Simple Chemical Method	Materials Technology: Advanced Performance Materials	International	24	4	213 – 216
Prita Pant Sarangi, Bhanudas Naik, Narendra Nath Ghosh	Synthesis of Single-Phase α-Fe2O3 Nanopowders by Using A Novel Low Temperature Chemical Synthesis Route	Journal of the American Ceramic Society	International	91	12	4145 – 4147
Prita Pant Sarangi, Bhanudas Naik, Narendra Nath Ghosh	Low Temperature Synthesis of Single-Phase α- Fe2O3 Nano-powders by Using Simple but Novel Chemical Methods	Powder Technology	International	192	3	245 – 249
Prita Pant, B. D. Naik	Development of a Simple Chemical Method for Synthesis of Single-Phase Ni-Zn Ferrite Nano-powders	Materials Technology	International	24	4	213 - 216

Continued…

Authors	Title	Journal Name	Category	Volume	Issue	Page Number
Prita Pant Sarangi`, B. D. Naik, S. R. Vadera, M. K. Patra, C. Prakash, Narendra Nath Ghosh	Development of a Simple Chemical Method for Synthesis of Single-Phase Ni-Zn Ferrite Nano-powders	Materials Technology: Advanced Performance Materials	International	24	2	97 – 99
Raghavendra Datta Naik, Pravin M Singru	Establishing the Limiting Conditions of Operation of Magneto-rheological Fluid Dampers in Vehicle Suspension Systems	Mechanics research communications	International	36	36	957 - 962
S. K. Sahay	On the independent points in the sky for the search of periodic gravitational wave	Romania Reports in Physics	International	61	2	191 - 201
S. S. Deshmukh, M. K. Deshmukh	A New Approach to micro-Level Energy Planning: A Case of Northern part of India	Renewable & Sustainable Energy Reviews	International	13	1	634 - 642
S. K. Sahay	Earth azimuth effect in the bank of search templates for an all sky search of the continuous gravitational wave.	International Journal of Modern Physics D	International	15	2	225 - 233
S. Gayathri , Judith M Braganca	Biosensors for monitoring environmental pollutants: A review	Environmental Science: An Indian Journal	National	5	9	1145 - 1149
Sachin Waigaonkar, BJC Babu, RT Durai	A New Approach of Resin selection in Rotational Molding	Journal of Reinforced Plastics and Composites	International	27	---	1021 - 1037
Sachin Waigaonkar, BJC Babu	Application of Concurrent Engineering for Rotationally Molded Fuel tanks	Rotation	International	4	4	72 - 77
Sarvesh Kumar, Neela Nataraj, Amiya Kumar Pani	Discontinuous Finite Volume Element Methods for Second Order Linear Elliptic Problems	Numerical Methods for Partial Differential Equations.	International	25	6	1402 - 1424
Sujit Kumar Ghosh, H. Peter Lu	“Probing single-molecule interfacial electron transfer dynamics of porphyrin on TiO2 nanoparticles”	J. Am. Chem. Soc.	International	131	4	1479 - 1487
Tarkeshwar Singh, Mukti Acharya	Two Signed Star are Skolem Graceful	J. of Combinatorial Mathematics and Combinatorial computing	International	69	Special	113 - 124

Continued…

Authors	Title	Journal Name	Category	Volume	Issue	Page Number
Tarkeshwar Singh	Graceful Signed Graphs on C_3^k	AKCE International Journal of Graphs and Combinatorics	International	6	1	201 - 208
Vikas Chaudhari, D M Kulkarni, Ravi Prakash	Study of influence of notch root radius on fracture behaviour of extra deep drawn steel sheets	Fatigue & Fracture of Engineering Materials & Structures	International	32	12	975 - 986
Yusuf Yagci, Baris Kiskan, Narendra Nath Ghosh	Recent Advancement on Polybenzoxazine—A Newly Developed High Performance Thermoset	Journal of Polymer Science: Part A: Polymer Chemistry	International	47	21	5565 – 5576
Meenakshi Raman	Establishing Relationships with Wider Society: Role of Media Relations Unit in Universities.	Impact (Magazine of the ACU PR, Marketing and Communications Network, UK.)	International		-	4-5
Meenakshi Raman	A Report on the International Conference on Soft Skills Development Strategies at BITS, Pilani, India.	ESP-SIG Journal of Professional and Academic English, IATEFL, UK.	International			33-34
Meenakshi Raman, Kumar Neeraj Sachdev	Educators in higher education institutions: a sketch for normative codification.	University News	National		47	7-10
Meenakshi Raman	Effective Communication as an Essential Ingredient of Group Decision Making.	International Journal of Communication	International		19	83-96
Meenakshi Raman, Sushila Rathore	Inner Progression of a Repressed Soul in Anita Desai's Fasting, Feasting. New Urges in Post Colonial Literature: Widening Horizons	Atlantic Literary Review	International			132-142
Meenakshi Raman, Nagendra Parashar	Teaching and learning softskills : A Case Study of BITS Practice School	Soft Skills: Cornerstone of professional success	International			503-510

Authors	Title	Journal Name	Category	Volume	Issue	Page Number
S. S. Baral, N. Das, G. R. Chaudhury, S. N. Das	A preliminary study on the adsorptive removal of Cr(V) using seaweed, *Hydrilla verticillata*	J. Hazardous Materials	International	171	-	358-369
N. Das, S. S. Baral, S. K. Sahoo, R. K. Mohapatra, T. S. Ramulu, S. N. DAS, G. Roy chaudhury,	Aerosol physical characteristics at Bhubaneswar, East coast of India	Journal of Atmospheric Research	International	93		897-901
Anjan Chattopadhyay	A comparative study of the spectroscopic features of the low-lying electronic states of H_2F^+ and H_2Cl^+ ions	Journal of Chemical Sciences	International	122	2	0-0
Lucy J. Gudino, Jagadeesha S. N. and Joseph X. Rodrigues	A New Design Approach of Spatial FIR Filter for the Synthesis of Wideband ULA Beamformer	Mediterranean Journal of Electronics and Communications	International	***5***	***3***	***97-104***
Utpal Roy, , Millie Pant, Radha, R Pankaj Sharma, R Sangwan	Nonlinear Optimization of Enzyme Kinetic Parameters	*Journal of Biological Sciences*	International	8	8	1322 – 1327
Utpal Roy, S Grover, V K Batish	Partial purification of an antifungal protein produced by *Enterococcus faecalis* CHD 28.3	*Annals of Microbiology*	International	59	2	279-284

Authors	Title	Journal Name	Category	Volume	Issue	Page Number
Utpal Roy ,R L Thakur	Antibacterial activity of *Leuconostoc lactis* isolated from raw cattle milk and its preliminary optimization for the Bacteriocin production	Research Journal of Microbiology	International	4	3	1222-1234
Shekh R, Utpal Roy**,** S M Singh	Inhibition of *Candida albicans* and two selected Gram-negtive pathogens by Polar *Enterococcus faecalis* and Carnobacterium sp. *Research Journal of Microbiology*	*Research Journal of Microbiology*	International	4	3	138-142
V Baths, U. Roy, Praneeth V	Graph Theoretic approach on Metabolomi netwrokds of Mycobacterial strains for potential drug targets	*Research Journal of Microbiology*	International	4	3	122-131
R. R. Bhargava, Amit Setia	Strip-yield model solution for cracked piezoelectric strip	International Journal of Applied Mathematics	International	22	3	355-367
R. R. Bhargava, Amit Setia	Model for a piezoelectric strip of crack arrest subjected to Mode-I loadings	Archives of Computational Materials Science and Surface Engineering	International	1	1	5-12
D. M. Kulkarni, Vikas Chaudhari, Ravi Prakash, and A. N. Kumar	Effect of thickness on fracture criterion in general yielding fracture mechanics	International Journal of Fracture	International	151	--	187- 198
Nitin Sharma,Anupama K R	A novel Genetic Algorithm for Adaptive Resource Allocation in Multiuser OFDM Systems with Proportional Rate Constraint	International Journal of Recent Trends in Engineering	International	02	05	135-139
Arya R. K. and Vinjamur M	Near –Optimization of Operating Conditions and Residence Time in Multi-zone Dryers for Polymer Coatings	Industrial & Engineering Chemistry Research	International	48	23	10504-10514

Annexure XIV

CONFERENCE PRESENTATIONS

Authors	Title	Particulars
Anasuya Ganguly	Cells in Blue, Green and White"a study by fluorescent microscope.	FLOURESCENCE 2009M, An International Conference of Fluorescence in Biology, Alessio Siculo, Messina, Italy, 16-19 March, 2009
Bhanudas Naik, Prita Pant Sarangi, Narendra Nath Ghosh	A simple chemical technique for synthesis of mesoporous silicate and incorporation of metal ion within this porous matrix	20th AGM of Materials Research Society of India, Kolkata, 10 February 2009
Bharat Deshpande, Mangesh Bedekar, Pralav Dessai, Vijay Reddy	On the enhancement provided by preceding and Succeeding Auxiliary Word to Search Engines to Categorize search results	CCITA 2010, International Conference on Computing Communication and Information Technology Applications, Janakiammal College of Engineering and Technology, 21-23 January 2009
Halan Prakash, Shyamalava Mazumdar	Succinylation of cytochrome c investigated by electrospray ionization mass spectrometry: reactive lysine residues	Symposium on Advance Biological Inorganic Chemistry, SABIC-2009, Tata Institute of Fundamental Research, Mumbai, 04-07 November 2009
K.V.R.B. Prasad, Dr. Pravin M. Singru	Identifying the Optimum Design of Turbo-Alternator Using Different Multi-objective optimization algorithms	International Conference on Recent Trends in Information, Telecommunication and Computing, Kochi, Kerala, India, 12-13 March 2009
Mitaxi Pranlal Mehta	Equilibrium States of Delay Coupled Oscillator Chains	National Conference on Nonlinear Systems and Dynamics, Kolkata, India 05-07 March 2009
Mridula Goel	Macro-economic crisis:effects on Indian retail	Macro-economic crisis:issues and challenges, Goa University, 27 February 2009
Prita Pant Sarangi, N. Pillai, A. Rajaram, R. S. Ardeshis, T. Dasgupta, T. Garg, Narendra Nath Ghosh	A novel but simple chemical method for synthesis of single phase Ni- Zn ferrite nanopowder and their properties	20th AGM of Materials Research Society of India, Kolkata, 10-12 February 2009

Continued…

Authors	Title	Conference Name
Prita Pant Sarangi, R. R. Chandrasekhar, S. R. Vadera, M. K. Patra, C. Prakash, Narendra Nath Ghosh	Preparation of High performance polybenzoxazine- Ni Zn ferrite Magnetic nano composite by a novel Chemical Method and its properties	20th AGM of Materials Research Society of India, Kolkata, 1-12 February, 2009
R K Mishra, K Deshpande, S Chandra, S Bhand	Novel biochip for analysis of organophosphate residues	1st Biosensing Technology Conference, BRISTOL (U.K.), 10-12 November 2009
Raj Kumar Arya	Depth Profiling of Multicomponent Coatings to Test Theories of Diffusion	14th International Coating Science and Technology Symposium, Marina del Rey, California, USA, 07-10, September 2009
Srikanth Mutnuri	Role of fluorescence in studying microbial diversity	FLOURESCENCE 2009, Mumbai, TIFR, 16-19 March 2009
Meenakshi Raman	Creative Thinking and Critical Thinking : Potential Tools for Executives	7th AIMS International Conference. IIM (B). 20-23 December 2009
Prasad, Ch.V.V.S.N.V., Kulkarni, D.M	Best Practices in Supply Chain Management	International Conference on Indigenous Management Practices, Annamalai University, Annamalai Nagar, India.
Raeesh Shekh, Utpal Roy	Inhibition of Multi-drug resistant *Candida albicans* by new extreme isolates	National Conference on Recent Trends in Biological Research March, 2009 at BITS PILANI
Veeky Baths, Utpal Roy	Graph Theoretic Approach of Metabolomic Network of Mycobacterial Strain for potential drug target.	National Conference on Recent Trends in Biological Research March, 2009 at BITS PILANI

CONFERENCE PUBLICATIONS

Mitaxi Pranlal Mehta	Equilibrium States of Delay Coupled Oscillator Chains
Sampatrao D Manjare	Engineering Solutions and Research Strategies to Mitigate Climate Change"

Annexure XV

ACCEPTED PUBLICATIONS

Authors	Title	Journal Name
Amalin Prince, V.P. Agrawal	A Group Decision making aid for evaluation and optimum selection of Micro-Electro-Mechanical System (MEMS) products	Journal of Mechatronics and Intelligent Manufacturing
Aswini Kumar Mishra	Public Spending for Protecting the Poor during Economic Reforms: Myth or Reality? Evidence from Orissa	Journal of Rural Development
Bhanudas Naik, V. S. Prasad, Narendra Nath Ghosh	Development of a simple aqueous solution based chemical method for synthesis of Mesoporous γ-Alumina powders with disordered pore structure	Journal of Porous Materials
Kareti V.R.B. Prasad, Dr. M. Singru	Identifying the Optimum Design of Turbo-Alternator Using Differential Evolution Algorithms	International Journal of Energy Systems, Computer and Control
Klas Risveden, Kimberly A Dick, Sunil Bhand, Patrik Rydberg, Lars Samuelson, Bengt Danielsson	Branched nanotrees with immobilized acetylcholine esterase for nanobiosensor applications	NANOTECHNOLOGY
Nitin Sharma,Sidharth Wagh,Anupama K R	Multi-Objective Resource Allocation In Multiuser OFDM Using PAES.	International Journal of Recent Trends in Engineering
Kiran C. P. Agrawal V. P	Structural modeling and analysis of a Mechatronic System -A Graph Theoretic Approach	Journal of Mechatronics and Intelligent manufacturing
Pravin M Singru, Brahmaprasad K Vrb	Identifying the Optimum Design of Turbo-Alternator Using Differential Evolution Algorithms	International Journal of Energy, Computer and Control
K.V.R.B. Prasad, Dr. Pravin M Singru	Optimum Design of Turbo-Alternator using Differential Evolution Algorithms	International Journal of Electrical Engineering
Prita Pant` Sarangi, Bhanudas Naik, S. R. Vadera, M. K. Patra, C. Prakash, Narendra Nath Ghosh	Preparation of Polybenzoxazine- Ni-Zn Ferrite magnetic nanocomposite and its magnetic property	Preparation of Polybenzoxazine- Ni-Zn Ferrite magnetic nanocomposite and its magnetic property
Raj Kumar Arya, Madhu Vinjamur	Near –Optimization of Operating Conditions and Residence Time in Multi-zone Dryers for Polymer Coatings	Industrial & Engineering Chemistry Research
Srikanth Mutnuri, Anasuya Ganguly, Vidhya Prabhudesai	• Effect of plant secondary metabolites on anaerobic digestion of food waste	Annals of Microbiology
Srikanth Mutnuri, Chanakya Bandi, Anasuya Ganguly	• Biocatalytic production of a commercial textile dye (Indigo) from a xenobiont	Research Journal of Microbiology

Continued…

Authors	Title	Journal Name
Srikanth Mutnuri, Anasuya Ganguly, Sivaraman C	• Biodegradation of hydrocarbons in the presence of cyclodextrins	World Journal of Microbiology and Biotechnology
Sunil G. Bhand, Srimathi Soundararajan, Ioana Surugiu Wärnmark, Jaqueline Simona Milea, Estera Szwajcer Dey, Maria Yakovleva, Bengt Danielsson	Fructose-selective calorimetric biosensor based on flow injection analysis	Analytica Chimica Acta
Tarkeshwar Singh, Belmanu Devdas Acharya, Mukti Acharya, Siddani Bhaskara Rao	Hypergraceful complete graphs	Australasian Journal of Combinatorics
Tarkeshwar Singh, Mukti Acharya	Embedding of Sigraphs in Graceful Sigraphs	ARS Combinatoria
Veeky Baths, U. Roy V.V. Rohit Kumar G.V.R. Praneeth	Graph Theoretic Approach on Metabolomic Networks of Mycobacterial Strains for Potential Drug Targets	Research Journal of Microbiology
Vikas Chaudhari, D. M. Kulkarni, Ravi Prakash,	Determination of Critical *CTOD* using crack Flank Opening Angle Method in General Yield Regime.	Fatigue and Fracture of Engineering Materials and Structures
Vikas Chaudhari, D. M. Kulkarni Ravi Prakash, V. P. Agrawal	Computer Aided Evaluation, Failure analysis and Optimum Selection of Product System Parameters	International Review of Mechanical Engineering (IREME).

Annexure XVI

POSTER PRESENTATIONS

Authors	Title	Host	Location	Date
Anasuya Ganguly	Cells in Blue, Green and White"a study by fluorescent microscope.	TIFR Mumbai	Mumbai	2008-03-13
Atish Kathpal, Prakash Chudalayandi	Computational Prediction of Drug Resistant Mutations by FORS-D analysis of Genes Under Selection. Poster Presented in the International Symposium on Genetic and Epigenetic Basis of Complex Diseases	CCMB, Hyerabad and MRC, UK	CCMB, Hyderabad	1900-01-01
B B Salgaonkar, Judith M Braganca	Characterisation of Extracellular pigment produced by Pseudomonas species.	50th Association of Microbiologists of India	National Chemical Laboratory, Pune	2009-12-15
Tarun Kumar Jha, Bharat Kumar Sharma	Effect of fast rotations on neutron star structure	BARC, Mumbai	Mumbai	2009-12-11

Annexure XVII

LIST OF FACULTY MEMBERS WHO HAVE PARTICIPATED IN INVITED LECTURES/WORKSHOP/TALKS/PANEL DISCUSSIONS

Authors	Host	Collaborators	Title	Date
Keshab Das, Aswini Kumar Mishra	Giri Institute of Development Studies, Lucknow	Govt. of Uttar Pradesh	Horizontal Equity and The Thirteenth Finance Commission: Issues and Ponderables	July 3-4
Prasanna Kumar N	Goa university	UGC	Solving integrals from Fourier analysis using calculus of residues, Lecture given during UGC – Refresher Course held at Goa University on 13/04/09.	April 13
Prasanna Kumar N	Goa university	UGC	Application of residues in solving integrals of rational functions, Lecture given during UGC – Refresher Course held at Goa University on 13/04/09	April 13
Sarvesh Kumar	BITS Pilani, Goa Campus	BITS	Intensive Workshop on "Scienctific Computation"	July 21-25
Tarkeshwar Singh	Kalsalingam University, Tamil Nadu	University of Castle, Australia	5th International Workshop on Graph Labelings	January 7-10
Ankita Arvind Kejriwal, Mangesh V Bedekar	OOPSLA	NA	MobiDSL - a Domain Specific Langauge for Mobile Web Applications: developing applications for mobile platform without web programming	October 25-26
Meenakshi Raman	International Management Institute , New Delhi -	Department of Scientific and Industrial Research, GOI; Goa Institute of Management -	Interfacing Social Sciences with management Education	September 6
Meenakshi Raman, Suresh Ramaswamy	Goa State Commission for women	Government of Goa	Supreme Court Gudelinesfor members of Complaints Committee on Sexual Harassment	November20
Meenakshi Raman	BITS Pilani-Goa Campus	BITS Pilani-Goa Campus	Acing the Job Interviews	January12-13
Meenakshi Raman	Dharampeeth College, Nagpur	ELTAI, Vidarbha Chapter	Developing conversation and brainstorming skills	January10
Meenakshi Raman	RC Patel Institute of Technology, Shirpur, Maharashtra	----	Soft Skills : Shifting Paradigms and Emerging Trends	March14-15
Meenakshi Raman	NUVA Institute of Technology, Nagpur	----	Speaking Intelligible English	January10
Meenakshi Raman	SCSVMV University, Enathur, Kanchipuram -	----	Success in Interviews, GDs and Presentations	October8-10

Annexure XVIII

BOOKS PUBLISHED

Authors	Title	Publisher	ISBN	Edition
Dhananjay MadhukarKulkarni	Engineering Graphics with AutoCAD	Prentice Hall of India	978-81-203-3783-1	1
Krishna Mohan, Meenakshi Raman	Advanced Communicative English	TMH, New Delhi	10-0-07-015322-1	1
Meenakshi Raman	Soft Skills: Cornerstone of Professional Success	Jain Brothers, New Delhi	-	1
Meenakshi Raman, Sangeeta Sharma	Professional Communication (for UPTU)	OUP, New Delhi	0-19-806112-9	1
Meenakshi Raman, Sangeeta Sharma	Technical Communication: English Skills forEngineers, 2nd edition	OUP, New Delhi	0-19-806178-1	2

Annexure XIX

EDUCATIONAL DEVELOPMENT DIVISION NOTES

S. No.	Course Code	Course Title	EDD Notes Title	Group	No. of copies	Semester (used)
1.	ME C332	Prime movers & Fluid machines	Prime movers & Fluid machines Laboratory Manual	Mechanical Engg.	125	Second sem., 2008-09
2.	TA C112	Workshop Practice	Workshop Practice Manual	Mechanical Engg.	330	Second sem., 2008-09
3.	TA C222	Measurement Techniques – II	Measurement Techniques – II Laboratory Manual	Civil, Chemical, Mechanical, E.E.E. & E.I.E.	650	Second sem., 2008-09
4.	TA C112	Workshop Practice	Workshop Practice Manual	Mechanical Engg.	700	First & Second sem., 2009-10
5.	BIO C241	Microbiology	Laboratory manual for Microbiology	Biology	50	First sem., 2009-10
6.	TOC C235	Electrical & Electronics Engg. Practice	Electrical & Electronics Engg. Practice Laboratory Manual	E.E.E. & E.I.E.	70	First sem., 2009-10
7.	CS/EE E/INS TR C391	Digital Electronics & Computer Organization	Digital Electronics & Computer Organization Laboratory Manual	E.E.E. & E.I.E.	400	First sem., 2009-10
8.	TA C211	Measurement Techniques – I	Measurement Techniques – I Biology Laboratory Manual	Biology	600	First sem., 2009-10
9.	ME C342	Production Techniques	Production Techniques Laboratory Manual	Mechanical Engg.	130	First sem., 2009-10
10.	EEE/I NSTR C371	Electromechanical Energy Conversion	Electrical Machines Laboratory Manual	E.E.E. & E.I.E.	130	First sem., 2009-10
11.	BITS G621	Professional Practice – II	Professional Practice – II Handout		50	First sem., 2009-10
12.		Annual Research Report Printing		RCEDD	200	Second sem., 2008-09
13.		Consultancy Services Brochure		RCEDD	500	Second sem., 2008-09